

Statistical Information Pertaining to Socio-Economic Conditions of Northern Aboriginal People in Canada: Sources and Limitations

Senada Delic

Abstract: With all the recent demographic, environmental, and other changes occurring in the circumpolar region of Canada, empirical investigations of the socio-economic well-being of northern Aboriginal people are becoming increasingly important to policy-makers, yet increasingly challenging to quantitative researchers. This is because systematically generated, comparable statistical data on this segment of the Canadian population have historically been inadequate, if available at all. This article identifies and assesses the quality of the existing major sources of statistical information available to researchers investigating socio-economic issues and needs in the context of northern Aboriginal communities. While a number of data sources are mentioned, the article centres primarily on the evaluation of Canadian censuses and post-censal surveys such as the Aboriginal Peoples Survey (APS) and the related Survey of Living Conditions in the Arctic (SLiCA). These data sources are the most comprehensive in the sense that they contain rich information on the surveyed population's engagement in both traditional and non-traditional economic activities, as well as on a range of other social indicators. After highlighting the relative strengths of each data source, the article makes a number of cautionary notes on their limitations when defining analytical samples and when comparing research results across time as well as between and within different Aboriginal groups. These cautions merit careful attention from researchers and policy-makers addressing specific issues and needs of the diverse sub-groups of the Aboriginal population in northern Canada. Even on the national level, there is a growing consensus on the ineffectiveness of generic policies aimed at alleviating the socio-economic burden of Aboriginal Canadians.

I. Introduction

Over the past few decades, there has been a steady flow of research evidence revealing the extent and the intensity of socio-economic disadvantages facing Aboriginal people in Canada. Due to empirical data scarcity, however, much of this evidence has been descriptive in nature, and except for recognizing regional differences, much of it has portrayed Aboriginal Canadians as a homogeneous group in the Canadian population (Royal Commission on Aboriginal People [RCAP], 1996; Indian and Northern Affairs Canada [INAC], 1997, 2000, 2003; Fiscal Realities Economists, 1999; Graham & Peters, 2002; Mendelson, 2004; Carter & Polevychok, 2004). Only a few analytical studies have attempted to apply conventional empirical methods to examine factors associated with socio-economic inequality among different Aboriginal groups across Canada (George & Kuhn, 1994; Bernier, 1997; Pendakur & Pendakur, 1998; De Silva, 1999; Kuhn & Sweetman, 2002; Drost & Richards, 2003). Constrained by their data files, however, these studies have centred primarily on paid labour market activities, with only sparse mention of traditional economic pursuits, particularly those in the Circumpolar North (Kuo, 1976). The ongoing efforts of Statistics Canada to improve the depth and the quality of the aggregate census and other survey data pertaining to Aboriginal Canadians have now produced several relatively reliable sources of information that can be used to examine various issues facing different Aboriginal groups, including the issues that are specific to northern Aboriginal communities. Although improved, these data sources still need to be approached with caution as they entail important shortfalls with Aboriginal population counts which, if ignored, can produce misleading policy implications. The Government of Canada has recently acknowledged the futility of generic policies to efficiently address the socio-economic disadvantages facing Aboriginal Canadians.

The main purpose of this article is to evaluate the main existing sources of statistical information that can be used to empirically examine the socio-economic well-being of Aboriginal Canadians living in the North. In addition to identifying and describing the data sources, the article offers some reflections on the weaknesses and gaps in what is available. For comparative purposes, the article makes some reference to all Aboriginal groups. However, the central focus is on the northern Aboriginal population and particularly on the evaluation of the data sources suitable for research on the northern mixed economy. The primary intent of this evaluation is to stimulate scientific interest in the issues of relevance to northern Aboriginal people and to encourage scientific rigour in data analysis and evidence-based policy-making.

The rest of the article is structured as follows. The next section gives a brief account of historical challenges involved in enumerating the Aboriginal population in Canada. The section extends this discussion to the current enumeration practices of Canadian censuses, commenting particularly on the historic evolution of the definition of “Aboriginality” and the implications this evolution has had on the comparability and reliability of the collected information. Section III describes the two related post-censal special surveys, the Aboriginal Peoples Survey (APS), and the Survey of Living Conditions in the Arctic (SLiCA), commenting on the key strengths and weaknesses of each for analyzing specific issues that are relevant to northern Aboriginal people. Section IV gives a brief account of other major sources of statistical information on socio-economic well-being of Aboriginal people, while section V concludes the article.

II. Canadian Census Data

As is the case with most developed nations, Canadian censuses are the key data sources used in empirical investigations of issues that involve small population groups such as Aboriginal groups in Canada. The census is Canada’s oldest, largest, and most inclusive survey; it strives to gather detailed information on demographic, social, and economic conditions of the entire population on a regular basis, currently every five years. This scope and consistency is what makes the census data the most valuable source of insights on the economic, social, and demographic conditions and trends occurring over time. Allowing comparisons on various dimensions, this data source is an indispensable decision making tool for all levels of government, business, industry, associations, academics, and other researchers. Indeed, its scope makes it the only reliable source of detailed data on small geographic areas such as remote communities and city neighbourhoods, or specific industrial and occupational categories (Statistics Canada, 2001).

Notwithstanding its strengths, however, as a data source, the Canadian census involves significant challenges with Aboriginal population counts, most of which revolve around historic volatility of the definition of Aboriginality (Wright, 1993; Goldmann & Siggner, 1995; Statistics Canada, 2001; Guimond, 2003; Siggner, 2003). This definition is currently extracted from two concepts: ethnicity and identity. As will be explained below, these two concepts are overlapping in many respects but are certainly not identical as they capture different population groups, with different socio-economic compositions. Over the past two decades of census-taking (i.e., 1986–2006), Statistics Canada has pointed out repeatedly that there is no single or “correct” definition of Aboriginal people and that researchers should exercise

caution when defining and comparing Aboriginal population samples over the census years (Statistics Canada, 2007). A proper understanding of the rationale behind this caveat is of crucial importance for researchers examining any aspect of the socio-economic well-being of Aboriginal populations, and this understanding entails at least a brief look into the historical census challenges in enumerating Aboriginal populations.

Although the first counts of the Aboriginal population in Canada were formally recorded in the 1611 “Statement of Indian Population” supplied by a Jesuit Missionary (Statistics Canada, 1876), Aboriginal people have been maintaining approximate counts of their population through oral tradition long before the early colonial encounters (Goldmann, 2007). The first official nominal census, conducted in 1666 by Jean Talon, presented no records of the Aboriginal population, but that was understandable considering that the 1666 Census made no inquiries into the origins of the population (Statistics Canada, 1876). An ethnic origin question first appeared in the 1871 Census (Statistics Canada, 1873), although no specific instructions were given to the enumerators with respect to collection or coding of Aboriginal origin until the early 1900s (Statistics Canada, 1871; 1901). The counts of Aboriginal traders and the names of their tribes, however, had been consistently gathered and maintained by the Hudson’s Bay Company administration from the early 1800s (Hudson’s Bay Company, 1828).¹

In deriving the counts of Aboriginal population, the early Canadian censuses relied exclusively on an ethnic origin question, also referred to as the ancestry, or simply the race, question (Goldmann, 2007). This question is currently asked on the long form questionnaire that is distributed to all participating reserves and all households in northern Canada (except in Whitehorse and Yellowknife) and to one in five households elsewhere in Canada. As instructed in the Census enumeration manuals, starting with the 1961 Census and onward, respondents were to understand the ethnic origin or ancestry question as referring to the ethnic or cultural origin of an individual’s ancestors. On the contemporary census form, an individual is categorized as having Aboriginal ancestry if he or she reports *at least one* Aboriginal ancestor, namely North American Indian, Inuit, or Métis (Statistics Canada, 2008a).²

Prior to the 1981 Census, Aboriginal respondents were permitted to give only single responses to the ethnic origin question because, up to that time, they were allowed to use only tribal or matrilineal descent to define their ancestry. After the 1981 Census, Aboriginal respondents were permitted to define their ancestry using descent from both the mother’s and the father’s side. This procedural change was one of the factors that gave rise to multiple

responses to the ethnic origin question (Statistics Canada, 2007; 2008a). The wording evolution of the census ethnic origin question over the past century, when the specific enumeration instructions were given to the enumerators, is summarized in table 1.

As illustrated in table 1, and as repeatedly emphasized by Statistics Canada, the concept of ethnicity, particularly that of Aboriginal ethnicity, “is fluid and is probably the most complex concept measured in the census” (Statistics Canada, 2007, p. 8). Although a number of factors have contributed to this complexity, one could plausibly argue that one of the most important factors was the change in reporting patterns, which were, in turn, affected by changes in the format and wording of the ethnicity question, as well as the change in the examples provided with the question to facilitate correct responses. The crucial and inextricable linkages between the understanding of, and the degree of importance attributed to, the very concept of ethnicity, and the prevailing socio-political conditions at different times of census-taking, also had their impact. While the ethnic descent rules in the early Canadian censuses reflected the conceptual thinking and the legislative and policy imperatives of the government of the day at the time of census-taking (Goldmann, 2007), later contextual factors such as the changes in legal status that resulted from revisions to the Indian Act, and the land claims negotiations that increased self-awareness among Aboriginal people, are likely reflected in the current ethnicity reporting patterns among different Aboriginal groups.³ Increasing instances of intermarriage (exogamy) among various groups is another factor that has likely contributed to the increase in the reporting of multiple origins responses (Goldmann & Delic, in print). Finally, even with the single ethnic origin responses, some uncertainty is bound to remain because the ethnicity question requires respondents to have a proper understanding of the concept of ethnicity and an awareness of their family background (Statistics Canada, 2007).

In an attempt to obtain greater definitional precision, the 1986 Census introduced an additional question that made an explicit inquiry into Aboriginal identity, treating it as an indicator of an individual’s *affiliation* with an Aboriginal group, that is, North American Indian, Inuit, or Métis (Statistics Canada, 2007). When first introduced, this question was distributed to all households in Canada. However, the results were left unpublished because they were deemed inaccurate, mainly due to a misunderstanding of the new terminology by the non-Aboriginal population.⁴ The question was reintroduced to Aboriginal respondents only in the first Aboriginal Peoples Survey in 1991. A similar question was then included in the 1996 Census to the whole population and was included in the following two censuses, the

Table 1. The variations in census wording of the “ethnic origin” question from 1901 to 2006

Census Year	Census Wording of the “Ethnic Origin” Question
1901	In collecting the data on ethnicity, enumerators were instructed to record the place of origin for the non-Aboriginal population and the names of tribes in the case of Indians.
1911–1931	Enumerators were instructed to derive racial or tribal origin along matrilineal side for Indians and along patrilineal side for others. Any mixed origin was to be classified as non-white.
1941–1951	Reference to tribal origin was dropped and Aboriginals were classified as “Indian, Eskimo, or half-breed” and later “Native Indian (North American)”.
1961	The long and short form questionnaires were introduced with an ancestry question referring to ethnic and cultural origins. Descent was derived from patrilineal lines. Respondents of mixed white-Indian parentage were coded as Indians only if they resided on-reserve.
1971	Self-enumeration was introduced and the question asked: To what ethnic or cultural group did you or your ancestors (on the male side) belong on coming to this continent?
1981	The ethnicity question was modified slightly: “To which ethnic or cultural group did you or your ancestors belong on first coming to this continent?” Four categories were offered to Aboriginal people: Status Indian, Non-Status Indian, Métis, and Inuit.
1986	The question on “Ethnic Origin” was rephrased in such a way as to encourage multiple responses: “To which ethnic or cultural group(s) do you or did your ancestors belong?” A separate question on Aboriginal identity was added to the questionnaire in this census. No specific rules were imposed on how ancestry was to be ascertained and adjustments were made to allow multiple origin responses.
1991, 1996, 2001 and 2006	The latest version of the ethnicity question states: “What were the ethnic or cultural origins of this person’s ancestors?” The question in the previous three censuses entailed essentially the same wording: “To which ethnic or cultural group(s) did this person’s ancestors belong?” Aboriginal people are classified as: North American Indian, Métis, and Inuit. A separate question was designed to ask about legal status. The last decade also introduced a special long form “Northern and Reserves Questionnaire” for use on reserves and in northern communities where respondents are still enumerated by interviewers. Other respondents are given an option to write in specific responses and the questionnaires are translated into 13 Aboriginal languages.

Sources: Statistics Canada (2001a; 2007; 2008a); Lavin and Gauthier (2001); Goldmann (2007).

2001 and the 2006, thus producing comparable Aboriginal identity data for the last three censuses (Statistics Canada, 2008).

To minimize the response confusion among the non-Aboriginal respondents, the latest version of the Aboriginal identity question maintains the old label for the Inuit population, asking: "Is this person an Aboriginal person, that is, North American Indian, Métis, or Inuit (Eskimo)?" (Statistics Canada, 2007, p. 8). With additional questions inquiring specifically about legal status and band membership, the last decade's censuses have produced relatively precise data for North American Indian, Inuit, and Métis, Registered and non-Registered Indians, as well as for the members of an Indian Band or a First Nation. This information is also available for detailed levels of geography, ranging from national counts, counts by provinces and territories, metropolitan areas, urban and rural areas, communities such as Indian reserves and settlements, and census tracts to the smallest geographic and dissemination areas (Statistics Canada, 2007).⁵

Despite the fact that Aboriginal identity data from the 1996, the 2001, and the 2006 censuses are comparable, and are "reasonably" comparable to the ethnic origin data from the 1981 Census (Statistics Canada, 2007), researchers should exercise caution when analyzing socio-economic trends using Aboriginal identity counts from previous censuses. Recent studies reveal that the drastic increases in the Aboriginal population growth rates over the past two decades have been affected not only by conventional demographic factors (fertility and migration) but also by other factors, and in particular by the respondents' variations in declaring their affiliation over time (Goldmann & Delic, in press). This phenomenon is now becoming known as "ethnic mobility," which, in this case, describes a process in which Aboriginal persons change their self-reported affiliations from a non-Aboriginal identity to an Aboriginal identity, and vice versa, from one census to the next (Siggner, 2003; Statistics Canada, 2007; Goldmann, 2007).⁶

It is not clear if and to what extent this process of ethnic mobility could be a voluntary act on the part of the respondents. However, it is plausible to view it, at least in part, as an act of "imposed ethnic mobility" that occurred as a result of the changes in the definition of the ethnic or identity group to which the respondents belong, the changes in methods by which Aboriginal people were classified over time, and the changes in the methods of ascertaining Aboriginal descent (Goldmann & Delic, in press). In either case, the phenomenon has serious implications for measuring and comparing the socio-economic conditions of different Aboriginal groups. Considering that sub-population counts constitute denominators of any rate of indicators of an Aboriginal group's well-being such as employment rate, the phenomenon

potentially undercuts a wide range of research. It also introduces doubts to any recently-reported relative improvements in the socio-economic makeup of the Aboriginal population (INAC, 2006a; Statistics Canada, 2008b).⁷

Table 2 illustrates the growth in total Aboriginal *origin* and Aboriginal *identity* counts from the 1986 Census to the 2006 Census, as well as the differences in the Aboriginal share of the total Canadian population when the two definitions are applied. While the aggregate figures presented in table 2 clearly depict a steady growth in Aboriginal population counts, they do not give a breakdown of the gains by each of the three main groups of Aboriginal people—North American Indian, Inuit, and Métis—nor do they give any indications of the presence of the multiple origin counts. The introduction of the identity question has made these detailed observations possible, and they are summarized in table 3.

Table 2. The census counts of total Canadian and total Aboriginal population from 1986 to 2006, classified by Aboriginal origin and Aboriginal identity definitions

Year	Total Aboriginal Origin Population	Total Aboriginal Identity Population	Total Canadian Population	Aboriginal Origin as % of Total Canadian Population	Aboriginal Identity as % of Total Canadian Population
1986	711,725	464,455	25,309,330	2.81	1.83
1991	1,002,675	613,820	26,994,045	3.71	2.27
1996	1,101,960	799,010	28,528,125	3.86	2.80
2001	1,319,890	976,305	30,007,095	4.39	3.25
2006	1,678,235	1,172,790	31,241,030	5.37	3.75

Source: The 1986–2001 total population counts are reproduced from Goldmann (2007). The 2006 figures are taken from Statistics Canada (2008).

As table 3 shows, the introduction of the identity question has not only revealed the *presence* but it has also highlighted a *growth* of the “Multiple Identity” category. This new identification indicator has also exposed the discrepancies in the counts of the “Status or Registered Indians,” the term that describes the group of Aboriginal people who report being registered under the Indian Act, and of the “Treaty Indians,” which is the term that describes the group of Aboriginal people who report being registered under the Indian Act and having a proof of descent as belonging to an Indian Band or First Nation that signed a treaty with the Crown (INAC, 2003a;

Statistics Canada, 2007). The question inquiring about Aboriginal people with legal Indian status, in relation to the Indian Act, was first appended to the ethnic origin question in the 1981 Census and later was introduced as a separate question in the 1991 Census, following the amendments made to the Indian Act in 1985 (Statistics Canada, 2007).⁸ Table 3 summarizes detailed breakdowns of the Aboriginal identity counts for the last four censuses that published counts on the registered Indian population.

Table 3. Decompositions of census counts for Aboriginal identity population from 1991 to 2006

Year	Total Aboriginal Origin Population	Total Aboriginal Identity Population	Census Counts for the Three Main Aboriginal Identity Groups (Single Identity Responses)			Multiple Identity Responses	Registered Indians
			North American Indian	Inuit	Métis		
			1991	1,002,675	613,820		
1996	1,101,960	799,010	529,040	40,220	204,115	25,640	488,000
2001	1,319,890	976,305	608,850	45,070	292,310	30,080	558,175
2006	1,678,235	1,172,790	698,025	50,485	389,785	34,495	564,870

Sources: The 2006 Census counts are taken from Statistics Canada (2008). The 1996 and The 1991 Census counts come from Northwest Territories Bureau of Statistics (1993).

As illustrated in table 3, the number of Aboriginal people has increased significantly during the 1991–2001 decade, and has continued growing in 2006, whichever classification one looks at.⁹ However, the pattern in the “Multiple Identity” response category indicates that at least some of this increase in Aboriginal population counts could be due to “ethnic mobility” rather than the natural population increase.¹⁰ This point is worth noting not only because of the implications it has for the measurement of the socio-economic trends among different Aboriginal groups (Guimond, 2003a; Siggner, 2003a; INAC, 2006a), but also because some demographers and sociologists conjecture that ethnic mobility is likely to persist, at least in the near future (Goldmann, 2007; 2008). This means that even if the definition of Aboriginality remains constant, the future censuses can still capture different population groups, with different socio-economic characteristics, under the same identity category.

Another important point worth noting here relates to the inadequacy of the census figures on registered Aboriginal population. Over the past two decades, the Indian Register — which is the other major source of information

on the Registered Indian population maintained by the federal government's Department of Indian and Northern Affairs for administrative purposes— has been consistently reporting different, usually larger, population figures from those published by Canadian censuses.¹¹ Understandably, some of this discrepancy in reported counts of registered Aboriginal population can be attributed to different enumeration objectives and different methodological bases of the two sources. However, aside from the methodological differences and the differences in concepts and definitions between the two sources, incomplete enumeration and undercoverage have historically also been a problem with the census enumeration on some Indian reserves and settlements.¹²

The 1991 Census documents give historical records of incomplete enumeration of Indian reserves and settlements that date back to the 1981 Census. The 1986 Census, however, was the first census where this issue was explicitly addressed. As stated in the "Special Notes" of the 1986 Census Profile of Ethnic Groups, "on some Indian reserves and Indian settlements in the 1986 Census, enumeration was not permitted or was interrupted before it could be completed. Data for 1986 are therefore not available for the incompletely enumerated reserves and settlements and are not included in tabulations" (Statistics Canada, 1989, pp. xxxvi-xxxvii). The exact undercoverage figure for the 1986 Census was 136 Indian reserves, some of which were known to be the most populated reserves in Canada at that time. The incomplete enumeration figures dropped significantly in the following two censuses, although they remained large. In the 1991 Census, a total of seventy-eight reserves were not enumerated and the 1996 Census did not include information on seventy-seven Indian reserves and settlements. The 2001 and the 2006 censuses did not provide information on thirty and twenty-two Indian reserves and settlements, respectively (Statistics Canada, 2008).

Researchers thus need to be aware that the census counts on registered Aboriginal population and the counts produced by the Indian Register are not directly comparable (Statistics Canada, 2007). In fact, considering that some undercoverage was detected even on Indian reserves where census enumeration was successfully completed (Lavin & Gauthier, 2001), it is safe to conclude that census data on the registered Indian population, and in particular on the registered Indian population living on-reserve, involve substantial sample representation issues, which is a serious problem if generalizability of research findings and conclusions is required (Berg, 2005).

III. Special Surveys Data

In addition to Canadian censuses, there are two fairly new and comprehensive data sources available to researchers examining socio-economic conditions of Aboriginal people in Canada. The first source is the Aboriginal Peoples Survey (APS). The APS is a post-censal survey that uses the existing census questions to identify its target population, that is, persons who identify with at least one Aboriginal group (North American Indian; Inuit; Métis; or a specific group, such as Ojibway, Cree, or Inuvialuit) and/or who indicate on the census questionnaire that they are registered under the Indian Act of Canada (Statistics Canada, 1993; 2003a). The survey was first introduced in 1991 and repeated shortly after the 2001 Census, covering First Nations peoples living both on-reserve and off-reserve, Inuit, and Métis. The third APS was carried out in the fall of 2006, covering only the off-reserve population. The on-reserve population is scheduled to be surveyed in a progressive fashion (Statistics Canada, 2007; Tait, 2008).

The initial content of the APS was developed jointly by a number of representatives from the Assembly of First Nations, the Native Council of Canada, and the Inuit Tapirisat of Canada, as well as by representatives of the federal, provincial, and territorial governments, and a number of research organizations. The explicit purpose for introducing this survey was to identify the needs of different groups of Aboriginal people, focusing in particular on the socio-economic issues such as employment, income, schooling, housing, health, language, and mobility (Statistics Canada, 1993). The survey targets both children and adult populations and as such provides additional data on lifestyles and living conditions of various demographic segments of Aboriginal people. The survey's content is regularly updated according to the needs of relevant stakeholders. Thus, in addition to the core questionnaire, the 2001 and the 2006 versions of the APS contain supplementary questionnaires for Métis and the Arctic adult population with questions that are relevant to their specific issues (Statistics Canada, 2007; Tait, 2008).

As is the case with the census data on Aboriginal people, the primary strength of the APS data lies in the sample size. The publicly available version of the 1991 APS, for instance, contains records on 36,635 Aboriginal persons, 25,122 of whom reported identifying with their specific Aboriginal identity (Statistics Canada, 1993). The sample size of the 2006 APS is almost double that of the 1991 APS sample (Tait, 2008). A rich variable content is another strong feature of this data source. Each record on a person who identified with his or her Aboriginal identity in the 1991 APS, for instance, contains about 570 variables from this survey as well as thirty variables from the 1991

Census. Records on individuals who, by census definition, were not part of Aboriginal identity population, contain data on the thirty census variables. The survey is particularly valuable for containing both on- and off-reserve indicators as well as for the urban-rural and various health status indicators (Statistics Canada, 1993; 1995; 2003a; Tait, 2008).¹³

But, like the census data, the APS data entail considerable limitations since the selection of the respondents to this survey is based upon their responses to the related census questionnaires. Hence, the undercoverage and under-representation as well as other census weaknesses of the Aboriginal population counts discussed above remain in the APS data (Statistics Canada, 2003a). These issues are even more pronounced if one relies on public-use versions of these data files, because in the public-use versions, if a question is of a sensitive nature or if it entails a relatively small sample size, even the available indicators are suppressed to protect confidentiality of the individual respondents (Statistics Canada, 2003a). Employing the survey master files, however, does allow for a more precise and detailed exploration, even if small geographic areas are involved (Keyes, Newcombe-Welch, & Warriner, 2006). Judging the representativeness and generalizability of research findings for any of the regions, however, remains a challenge due to the sampling problems discussed earlier.

The second source of rich statistical information that pertains particularly to northern Aboriginal Canadians can be found in the Survey of Living Conditions in the Arctic (SLiCA). This survey is a unique and comprehensive source of information that can be used to examine a range of specific issues related to lifestyles and living conditions of northern Aboriginal people. The SLiCA is a new international survey, the results of which were first released in 2007 (Poppel, Kruse, Duhaime & Abryutina, 2007). The survey gathered extensive information on the quality of life *as perceived by* the northern residents, including Arctic Inuit and Inupiat communities of Canada, Alaska, Russia's Chukotka region, and Greenland. The survey design and the content of an international questionnaire was developed jointly by Indigenous people and Arctic social scientists from Greenland, Canada, Norway, Sweden, Finland, Russia, and the United States over a one-decade time period (Usher, Duhaime & Searles, 2003; SLiCA, 2007; Kruse et al., 2008).

The first reported SLiCA findings are based on 7250 interviews, which are said to be generalizable to all Indigenous adults (age fifteen and over in Greenland and Canada, and sixteen and over elsewhere) living in the three Inupiat settlement regions of Alaska (North Slope, Northwest Arctic, Bering Straits census areas), the four Inuit settlement regions of Canada (Inuvialuit,

Nunavik, Nunavut, Labrador Inuit land claims regions), all regions of Greenland, and ten districts of Chukotka, Russia (Anadyrskij, Anadyr, Shmidtovs, Beringovskij, Chukotskij, Iujl'tinskij, Bilibinskij, Chaunskij, Providenskij, Uel'Kal' districts).¹⁴ The first SLiCA sample sizes and the response rates for each country are summarized in table 4 below.

Table 4. The first SLiCA sample size summary

Indigenous Settlement Regions	Indigenous Adult Population	SliCA Sample Size	Response Rate (%)
Northern Alaska	11,000	700	84
Northern Canada	22,000	4,700	83
Greenland	36,000	1,250	83
Russia (Chukotka)	14,000	600	85
Total	83,000	7,250	83

Source: SLiCA (2007)

For each sample in the above table, the SliCA involved face-to-face interviews, with an average interview length of sixty minutes in Canada (producing 129 variables per SliCA respondent) and ninety minutes in other regions (producing 950 variables per respondent). In Canada, the first SliCA questionnaire was integrated into the 2001 APS and covered 11,000 Inuit adults and children. Using the calendar year 2000 as a reference period, the interviewers collected a range of information on language use, education, access to information technology, paid and unpaid labour activity, housing, mobility, and income. This information was organized around five socio-economic themes that included: (1) importance of a mixed cash-and-harvest or herding-based economy to living in the Arctic; (2) importance of social relationships and the standard of living to settlement patterns; (3) relationships between social problems and other dimensions of living conditions; (4) the influence of educators and missionaries; and (5) the influence of policies on living conditions (Statistics Canada, 2006a; Poppel et al., 2007).

Since the SliCA is a fairly new survey, the strengths and the weaknesses of its data are hard to assess at this point in time. Perhaps one of the most observable strengths in both the 2001 and 2006 SLiCA files is the relevance and the range of the variables included in the survey. In addition to informing, the SLiCA data allow for a comparison of living conditions across the Circumpolar North on a range of dimensions such as household and harvesting activities, personal and community wellness, and social participation (Poppel et al., 2007; Kruse et al., 2008; Tait, 2008). Thus, the

richness of the relevant variables in this data source, relative to other data sources, is invaluable for examining issues that are specific to the residents of the circumpolar communities. Researchers, however, need to be aware that the range of the socio-economic conditions comparison for Canada is likely to be both smaller and less precise than for the other participating countries since the Canadian component of this survey entails significant constraints, both in terms of the survey sampling method and the variable content.

As one can observe in the survey description presented above, the Canadian component of the 2001 SLiCA involves a significant gap in terms of the number of variables that can be derived relative to the number derived from the questionnaires of other participating countries. The second, and perhaps more important point is that being a component of the APS, the Canadian SLiCA, by design, maintains all of the representation and the population count issues discussed above. Therefore, the statement in the description of this survey that alludes to generalizability of the conducted SLiCA interviews to all Indigenous adults living in the Arctic regions that participated in the survey is somewhat misleading and should be read with caution.

Indeed, it is very likely that only some communities within each listed region were included in the survey sampling frame (Kruse et al., 2008). In the case of Canada, for instance, the SLiCA's definition of Canada's North excluded a number of important northern Indigenous communities such as the Dene in the Northwest Territories, the Cree in Northern Quebec, and the Innu Nation people from Northern Quebec and Labrador (SLiCA, 2007). The sample composition of the Canadian component of the SLiCA is also not as precise in terms of ethnicity or identity as one is led to believe in the description of the survey. While it is true that a large majority of those interviewed in the 2001 Canadian SLiCA were Inuit, some First Nations and Métis people were also included in this survey sample (Statistics Canada, 2006a).

IV. Other Data Sources

Aside from Canadian censuses and the two special post-censal surveys, the APS and the SLiCA, Statistics Canada has recently introduced another post-censal survey of Aboriginal people, namely the Aboriginal Children's Survey (ACS). Launched in fall 2006 for the first time, this national survey was developed jointly by Statistics Canada and Aboriginal advisors to provide an overview of the early childhood development of Aboriginal children, less than six years of age, with a North American Indian, Inuit or Métis identity. Detailed information on the off-reserve children has already been collected

while the collection of information on the on-reserve children is planned to be completed in the near future. The information solicited through this survey pertains to a wide range of topics, including the child's health, sleep, nutrition, development, nurturing, child care, school, language, behaviour, and general activities. Recognizing that the children's environment plays an important role in their proper development and well-being, the ACS also collects some information on the children's parent(s) or guardian(s) and their neighbourhood or community. Collection of this information involves direct participation of parents, front-line workers, early childhood educators, researchers, and a number of representatives of various Aboriginal organizations (Statistics Canada, 2007).

The primary strength of the ACS is that it is holistic in nature and it collects relevant information on a wide range of topics on the development and well-being of young Aboriginal children living across Canada. This is important considering that within different Aboriginal population groups, well-being takes into consideration both the conventional and the Aboriginal holistic models of health. The survey strives to be representative in the sense that it includes various indicators that are thought to be generalizable to all children from the three main groups of Aboriginal people, namely North American Indian, Inuit, and Métis (Government of Canada, 2007). With a general historical scarcity of information that is relevant to different Aboriginal groups, the ACS fills an important gap in the availability of information on the health, social, and economic characteristics of Aboriginal children. The fact that the survey will be repeated every five years carries a practical importance too because it allows researchers to not only monitor changes over time but also to measure issues of emerging interest to different groups of Aboriginal people. As such, this survey is an invaluable tool not only to researchers but also to governmental and non-governmental decision makers and Aboriginal community planners who are addressing the needs of Aboriginal children with a holistic perspective of well-being in mind.

From a research point of view, however, the ACS data are limited because they entail the same census data challenges discussed previously. The first ACS selected its sample of about 17,000 Aboriginal children from the 2006 Census (Statistics Canada, 2007). This means that the issues of undercoverage and incompletely enumerated reserves, as well as other census challenges with Aboriginal population counts identified above are maintained in the ACS. Hence, researchers need to be aware that using this survey data will not allow them to produce valid statistical inferences at the national or a regional level.

In addition to the three post-censal surveys that focus exclusively on the Aboriginal segment of the Canadian population, Statistics Canada has also recently added Aboriginal identity indicators to two specific sources of information it produces for the general population. One of these data sources is the Labour Force Survey (LFS), which is a national household survey conducted each month by Statistics Canada to provide information on major labour market trends. In 2004, an Aboriginal identity question was added to the LFS, which permitted Aboriginal people living off-reserve in four provinces (Manitoba, Saskatchewan, Alberta, and British Columbia) and all people living in the three territories (Yukon, Northwest Territories, and Nunavut) to identify themselves as North American Indian, Inuit, or Métis. As of January 2007, Statistics Canada has started collecting comprehensive information on labour market conditions of the off-reserve Aboriginal population in all provinces and of all Aboriginal people living in the territories (Statistics Canada, 2007).

Having the Aboriginal identity indicator in the LFS is important for researchers concerned with the paid labour market issues of Aboriginal workers because this indicator was previously available only in Canadian censuses, which by design contain fewer variables that can be used to examine significant factors related to labour market participation and outcomes of different Aboriginal workers (Statistics Canada, 1998). However, the LFS does not capture any aspect of the non-wage labour activity, which makes it hard to conclude, for example, whether the low labour force participation of a particular Aboriginal group of workers indicates poverty or heavy participation in traditional pursuits. This aspect is very important, particularly for Aboriginal workers living in the territories. Over the past two decades, a number of researchers have emphasized that the strong presence of a “mixed economy” in the northern Aboriginal communities is not merely a residue of an old and fading way of life, but a unique aspect of the adaptation process in which a subsistence economy continues to coexist with the modern market economy (Lautard, 1982; Stabler, 1989; Elias, 1995; Usher et al., 2003; Abele, 2006). In this mixed economy model, as Usher et al. (2003) explain, the household functions as a “micro-enterprise” and individuals move strategically between subsistence and market activities depending on opportunities and preferences (p. 177). In such communities, both the income-in-kind obtained from traditional economic activities, and cash income obtained from wages and social transfers, are readily shared among households and community members (Abele, 2006).

Thus, relying on this data source alone can lead researchers to make narrow policy recommendations for different groups of Aboriginal

workers. In the case of the northern Aboriginal workers, this may entail suggestions such as out-migration, as was implied by some researchers who employed census public use microdata files. Observing greater earnings and employment disadvantages among the on-reserve and northern Aboriginal workers compared to other Aboriginal workers, Kuhn and Sweetman (2002), for instance, have suggested that relocating away from reserves and away from remote northern communities into larger cities where there are greater opportunities for active contacts with the “majority culture” is “the most reliable route to economic success” for a young Inuk or a First Nations person (p. 349). This suggestion, however, is in direct opposition to the expressed preferences of northern residents with regard to their place of living. The 2001 SLiCA results indicate that Canadian Inuit people, relative to other Arctic residents, are the least likely to report wanting to move away from their communities (SLiCA, 2007).

This preference of people might be correlated with traditional pursuits, data of which are not available either in the census files or the LFS files. Of course, this comment is irrelevant for the on-reserve workers since the LFS targets only the off-reserve residents. But even with its focus on the off-reserve population, the LFS is likely to involve fundamental sample size issues that might preclude any detailed analysis and essentially render any generalization impossible, especially for the North American Indian identity workers (Rowe & Nguyen, 2004). Small sample sizes, in addition to the other challenges in identifying the samples that were discussed earlier in this article, are likely to cause large sampling errors and thus reduce the confidence in the empirical analysis, regardless of the level of statistical sophistication employed (Berg, 2005).

The second source of data to which Statistics Canada has recently added an Aboriginal identity indicator is the Canadian Community Health Survey (CCHS). Since 2001, this survey has been collecting health-related data for the total population twelve years of age and older, living off-reserve, in all Canadian provinces and territories. The survey is designed to provide cross-sectional estimates of health determinants, health status, and health system utilization for 133 health regions across provinces and the territories. In the past, the survey worked only with an ethnic origin question. As of 2005, it also includes an Aboriginal identity question (Statistics Canada, 2007). Aside from the previously-discussed challenges in identifying Aboriginal population, the main drawback of this data source is that it does not cover registered Aboriginal populations living on-reserve or in some remote areas (Statistics Canada, 2004).

The Assembly of First Nations, however, has recently initiated a longitudinal health survey of First Nations people living on reserves across Canada. This Regional Health Survey (RHS) is a major national data collection effort that is fully directed and controlled by First Nations and is modelled in part on the Canadian Health Measures Survey, although it reflects a more holistic view of health. The Phase 1 of this survey was undertaken in 2002, with the population sample consisting of 22,000 individuals from 238 First Nations on-reserve and other communities, whose names were taken from the 2002 Indian Register maintained by INAC. Phase 1 of the survey employed three separately designed questionnaires for children (aged less than five), youth (aged between twelve and seventeen), and adults (aged eighteen and over). The survey solicited a comprehensive range of information about health, wellness, and other concerns and issues of the on-reserve residents. Phase 2 of this survey is underway and Phase 3 and Phase 4 will be done in 2011 and 2015 respectively (Assembly of First Nations, 2007).

The longitudinal nature of this survey constitutes its primary strength. Unlike most of the previously discussed data sources that are purely cross-sectional in nature and as such provide only a “snapshot” of a specific group being surveyed at a specific point in time, this data source provides records on the same group of individuals surveyed over time. By tracking the same respondents from a single cohort over a period of time, the survey produces powerful data that could allow researchers to better identify relationships and, possibly, causal linkages over time (Wooldridge, 2006). For instance, using linked records of the same panel of respondents over time, researchers can examine the relationships between the factors measured in one time period such as attitudes, behaviours, and different health outcomes measured in the subsequent time periods. Such a study would provide a deeper understanding of the nature and causes of problems First Nations people face as they go through their life stages than the understanding that would be possible to obtain from other existing data sources.

Researchers can also treat each wave of this survey as a cross-sectional survey, as long as the survey-measuring instruments remain stable over time. Such data are very useful for policy analysis, and in particular program evaluation, because many policies can be expected to have an impact only after some time has passed. The data from this survey would allow researchers to study the importance of lags in behaviour or the result of decision making (Wooldridge, 2006). The longitudinal design of this survey also adds further analytical strength without sacrificing the potential for cross-sectional research since, as the survey proceeds, it allows for adding new questions that can address immediate data needs using the existing

sample. One issue that can affect the quality of this data source, however, is the fact that the respondents are not interviewed frequently enough to avoid or to minimize recall bias. Information on attitudes and motivations that guide respondents' behaviour, for instance, is likely to be different if measured four years retrospectively than it would be if measured closer to the time they occur.

The Department of Indian and Northern Affairs Canada (INAC) also collects and maintains a variety of statistical data pertaining specifically to the registered Aboriginal population. These data range from basic departmental data (INAC, 2000; 2002a) to a series of national surveys of First Nations people living on-reserve that were first initiated in August 2001 (INAC, 2001). These surveys collect information on general attitudes of the registered Aboriginal population towards priorities, and views about performance, of the Government of Canada, satisfaction with service delivery and best methods of communication with the Government of Canada as well as the views about education of the registered Aboriginal youth both on and off reserve (INAC, 2002).

Recently, INAC has also developed two special tools for measuring the quality of life of registered Aboriginal population, namely the Registered Indian Human Development Index (HDI) and the First Nations Community Well-Being Index (CWB). The Registered Indian HDI is based on the United Nations HDI and is designed to compare the average well-being of Registered Indians with the average well-being of other Canadians on national and regional levels. The existing Registered Indian HDI uses Canadian census data from 1981 to 2001 and life expectancy estimates to measure three specific dimensions of well-being over time: (1) a long and healthy life; (2) knowledge; and (3) a decent standard of living. The results of this measurement, broken down by region, gender, and residence on and off reserve are summarized in three main indexes: (1) a life expectancy index; (2) an education index; and (3) a per capita income index. Another index, termed the human development index, combines all three indexes (INAC, 2004).

The First Nations CWB index was developed as a supplement to the Registered Indian HDI to measure the well-being of individual First Nations communities and to compare it to the well-being of other Canadian communities. The purpose of this measurement is to gain a better understanding of the causes and correlates of well-being in First Nations communities in Canada and to identify the prosperous First Nations that may serve as sources of best practices as well as to identify those First Nations experiencing the greatest need. The existing CWB index uses the

2001 Census data and combines four specific indicators (education, labour force activity, income, and housing) to rate each community in terms of well-being on a scale from zero to one (INAC, 2004). The same two measures of well-being were developed for the Inuit population, namely the Inuit Human Development Index (HDI) and the Inuit Community Well-Being Index (CWB), with the same purpose and by applying the same methodology as for the First Nations measures (INAC, 2006).

In light of the above discussed issues with the census data on Aboriginal people in general, and on the registered and northern Aboriginal people in particular, these measures that INAC has developed are bound to be imperfect measures of the well-being of these two groups of Aboriginal people as they draw on census data. The existing Human Development Indexes that focus on the 1991–2001 time period (for Inuit people) and on the 1981–2001 time period (for Registered Indians) employ census data files that were identified in this article as non-comparable, due primarily to the changes that were made to the census definition of Aboriginality and the ethnic mobility phenomenon. The existing Community Well-Being Indexes use only the 2001 Census data, which is perhaps less problematic as this data file was identified in this article as reasonably reliable, albeit not perfect. However, it is questionable whether the census labour force activity indicator included in the CWB indexes apply properly to these two groups of Aboriginal people.

One could argue, for instance, that Canadian census data on labour market activity status contain insufficient information to make accurate distinctions between the unemployed and out-of-labour force among the northern residents living in different communities. The current key criterion used in the Canadian census classification of unemployed is “active” job search. The reasoning behind this criterion is based on a priori that those who actively search for a job are displaying, by their behaviour, their strong attachment to the paid labour force. Without this declaration of active job search, they are not providing enough evidence of their labour market attachment and are therefore classified as out-of-labour force. Surely, as Kleinfeld and Kruse (1982) explain in their assessment of the Alaskan native job search behaviour, the lack of active job search among the northern Canadian residents, living in small communities, where the information about job (un)availability is widely known to the residents, cannot be interpreted as a lack of seriousness on their part about obtaining paid employment. The labour force activity indicator in the INAC’s Community Well-Being Indexes, therefore, is likely to understate both the unemployment and the labour force participation rates in small reserves and small northern communities.

As indicated earlier in this article, there are other national statistical data sources pertaining to northern Aboriginal Canadians that might be more useful for deriving individual and community well-being indicators. In fact, the international research community and the Arctic Indigenous representatives are now working with the SLiCA results to design an Arctic Social Indicators system (Kruse et al., 2008). Each of the territories also has its own data sources that can be consulted. The Government of Northwest Territories Bureau of Statistics, for instance, collects and maintains a range of data on the socio-economic conditions of northern Aboriginal populations (NWT Bureau of Statistics, 2006; INAC, 2002a; INAC, 2003), as does the Yukon Bureau of Statistics (Yukon Bureau of Statistics, 2006). The Nunavut Bureau of Statistics has also commenced collecting its own statistical data on some socio-economic issues (Nunavut Bureau of Statistics, 2001; Government of Nunavut, 2002) and the ArcticNet Network of Centre of Excellence has recently launched a comprehensive survey of Inuit health, funded in part by the Government of Canada through International Polar Year (Arctic Net, 2008).

The ArcticNet survey of Inuit health is particularly interesting as it uses a new way to inquire about emerging health issues among Inuit people living in the Arctic, covering children, adults, and communities in the Inuvialuit Settlement Region, Nunavut, and Nunatsiavut. Using a comprehensive survey questionnaire, the first part of this survey, administered in 2007, collected a range of health-related information from about 1200 survey participants. The second part of the survey is in process and it involves a clinical examination of the participants' health conditions, focusing in particular on conditions such as diabetes, high blood pressure, and heart and stroke risk as well as the assessment of the respondents' diet, life stressors and coping mechanisms, home crowding, and other household issues (Arctic Net, 2008). Employing the data from this survey in health-related research can enable researchers to be more precise in examining relationships between specific behavioural factors derived from the oral questionnaires that contribute to different, clinically measured health conditions and suggest ways for preventing or minimizing them. The findings from such research would be invaluable in helping communities and governments to create more effective Inuit-specific health programs and policies.

V. Concluding Thoughts

The Canadian government has recently acknowledged that the enduring gap in socio-economic conditions between Aboriginal and non-Aboriginal Canadians is intolerable and that generic, one-size-fits-all policies and

programs are clearly inadequate to effectively address the multifaceted disadvantages facing the diverse groups of Aboriginal people in Canada (Patterson, 2006; Government of Canada, 2004, 2008; INAC, 2007, 2007a). This recognition has helped various governmental and non-governmental agencies to reach consensus regarding the need to design separate policies and programs tailored to the diverse needs and aspirations of different Aboriginal groups. The intent of this article is to make a contribution by informing researchers and policy-makers about the relative suitability of the existing sources of statistical information that may produce the accurate evidence necessary for formulating such policies and programs.

The article has assessed and summarized the major strengths and weaknesses of the existing empirical data sources that could be used to explore various socio-economic issues relevant to different Aboriginal groups, focusing primarily on northern Aboriginal people. As one could deduce from this article, the scope, the quality, and the coverage of statistical data pertaining to Aboriginal people in Canada and their socio-economic conditions have improved significantly since the early enumeration attempts of Jesuit missionaries and Hudson's Bay administrators. However, as highlighted in this article, researchers should exercise caution when defining their analytical samples and especially when making comparisons across time or when comparing their research results both between and within Aboriginal groups, as well as on national and international levels. This caveat applies not only to the Canadian census data but also to the data derived from the special post-censal surveys since, by design, these surveys maintain the census data deficiencies, in addition to the deficiencies they have of their own.

Relative to the early Canadian censuses, the contemporary Canadian censuses and the related post-censal surveys have made every effort to enhance our knowledge of the heterogeneous nature of Aboriginal population and to provide comprehensive information that is relevant to and representative of the three main groups of Aboriginal people—North American Indian, Inuit, and Métis. However, as discussed in this article, the achieved representativeness in these data sets is rather imperfect, particularly for the registered Indian population and the population living in relatively small remote areas such as Inuit communities that are widely dispersed across large areas of land. The growing records of Aboriginal population counts in the "Multiple Identity" category of the census poses a special challenge to researchers as they attempt to make inter-and-intra-group comparisons. If ignored, this challenge can produce misleading policy implications and, perhaps, obstruct the endeavours of decision makers in

improving the dismal conditions of the members of different Aboriginal groups.

On the other hand, the growing recognition of the importance of subsistence activities, and of the holistic conception of socio-economic well-being in the North, is bound to diminish the significance of the conventional inter-group comparisons between northern Aboriginal and other non-Aboriginal Canadians on many dimensions—particularly in research involving productivity and labour market activity that is based exclusively on Canadian census and other conventional labour market survey data. As pointed out earlier in this article, heavy unemployment or low participation rate in some northern Aboriginal communities might be an indication of heavy engagement in traditional economic pursuits. This engagement could be classified as gainful since these pursuits are of essential importance to the survival and prosperity of households and communities and their unique cultures. But at the same time, a proper understanding of both macro and micro economic determinants of what discourages northern Aboriginal workers from “actively” searching for a job is imperative as it can carry important implications for both the measurement and the perpetuation of their labour force disadvantage.

The special surveys data discussed in this article can be helpful to some extent in examining this issue, although some work-related research questions remain difficult to test with required precision. For instance, while the SLiCA provides a fair picture of the participation of northern individuals and households in the mixed economy, it gives no indicator to measure the respondents’ relative preferences for wage employment over subsistence activities, or vice versa. For comparative and for public policy purposes, this piece of information is crucial in order to derive effective and responsive programs and policy developments and, ultimately, to improve the socio-economic conditions in northern Aboriginal communities.

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Author

Senada Delic is a PhD candidate at the School of Public Policy and Administration at Carleton University and a research assistant with the SERNN0Ca, Theme 3.

Notes

1. See, for example, the report on Ungava Indians and Ungava Esquimeaux enumerated in August 1835 on pages 14 and 15 of the Fort Chimo Report, 1833-35; Ungava Report-List of Ungava Indians and List of Ungava Esquimeaux, Report No 26, Ungava 1835, in the Hudson's Bay Archives, B. 38/e/2, fo. 8, Winnipeg, Manitoba. According to the enumerator's note, included in the "General Remarks" of the Ungava Report, these counts were approximations: "the List of Indians and Esquimeaux are received, but as they all trade by commission, it is difficult to know to whom the Furs belong—as one Indian may perhaps trade Skins belonging to half dozen other Indians—at the same time wishing me to believe they are all his own" (see page 13 in the Fort Chimo Report, 1833-35; Ungava Report (1835)).
2. In the early Canadian censuses, starting with the 1871 Census, Inuit were referred to as "Eskimos" and Métis were referred to as "half-breeds" and their enumeration counts were sparse, if reported at all (Statistics Canada, 1873, 1876).
3. The revisions made to the Indian Act in 1924 and 1951, for instance, had a direct affect on how Aboriginal people were classified in those censuses. Likewise, the core of the definition of the Aboriginal people included in the censuses since 1986 is based on the current Indian Act and the Constitution Act, 1982 (Goldmann & Delic, in press).
4. The Aboriginal identity question asked: "Do you consider yourself an Aboriginal person or a native Indian of North America, that is, Inuit, North American Indian or Métis?," with a note directing respondents to consult the written guidelines for clarifications. The respondents were offered five check-in boxes: No, I do not consider myself Inuit, North American Indian or Métis; Yes, Inuit; Yes, status or registered Indian; Yes, non-status Indian; and, Yes, Métis. The guidelines stated that "Anyone who feels he/she is an aboriginal person (for example, Inuit, Métis, treaty or non-treaty status Indian) should respond to the categories beginning with 'Yes ...', as appropriate. Aboriginal children, even if adopted by non-aboriginal families, should also have a 'Yes ...' response. Any person who considers him/herself to be East Indian or Asian Indian or Asiatic Indian, or who feels he/she has ethnic roots on the subcontinent of India, should mark 'No ...' to this question. Any other person

who considers him/herself not to be an aboriginal person of North America should also mark 'No ...'." (See the 1986 Census Guide in the 1986 Census Reference Handbook, page 127–128).

5. It should be noted here that the Public Use Microdata Files (PUMFs) of these censuses, which are most commonly employed by social science researchers, do not contain this detailed information. To protect confidentiality of the information provided by individual respondents, Statistics Canada employs special measures to the PUMFs, under which relevant variables are either regrouped into a smaller number of categories or completely suppressed (Statistics Canada, 2006).
6. More generally, the ethnic mobility phenomenon stands for changes in the size of a population group described by ethno-cultural characteristics that cannot be explained by natural processes or by migration (Goldmann & Delic, in press). The phenomenon, of course, is not unique to the Aboriginal population only. The ambiguities of the concept of ethnicity have been discussed and the ethnic transfers have been observed among the non-Aboriginal Canadian population groups too (see for example Goldmann, 2008).
7. Guimond (1999; 2003a) and Siggner (2003a) give more details on this. After establishing that persons of Aboriginal origin who report more than one ethnic origin outnumber those who report a single origin, they undertook an examination of the cumulative effect of multiple generations of ethnic mobility. Guimond (2003a), for instance, found that more than a third of persons of Aboriginal origin do not identify with any Aboriginal group. He refers to this as ethnic drift—that is, the tendency for Aboriginals to switch identities from one to the next census. In taking a closer look at the socio-economic makeup of this group, he found that, as these individuals drift in and out of Aboriginal populations, they bring with them their own distinct set of demographic and socio-economic characteristics, mostly urban, with lower fertility and higher educational attainment rates. In examining the Inuit population counts, INAC (2006a) found that the socio-economic characteristics of the respondents who self-identify as Inuit are markedly different and are much closer in resemblance to the characteristics of the Inuit-only ancestry group than to the total Inuit ancestry group that includes mixed ancestry responses. The respondents from the mixed Inuit ancestry group “are less likely to speak Inuktitut, are more likely to live in the south, have higher incomes and so on” (INAC, 2006a, pp. 2–5).
8. Until recently, the definition of non-status Indian included a number of Aboriginal individuals who lost their status and remained in a transitional phase of their legal identity. These individuals included mostly Status Indian women who historically had to give up their Indian status to marry non-Indian men. Unlike Status Indian women, Aboriginal men did not lose their Indian status when they married non-Indian women. On the contrary, the Indian status was given to their non-Indian wives as well as to their offspring,

automatically. The amendments made to the Indian Act in 1985 through Bill C-31 induced a great number of these non-Status Indians and their offspring to apply for and regain their Indian Status. This reinstatement of status, in particular, produced a sharp increase in the registered Indian population counts, although no consensus exists with respect to its precise magnitude (INAC, 2003a; Guimond, 2003; Furi & Wherrett, 2003; Goldmann, 2007).

9. The “Single Identity” response category includes the counts of respondents who reported only a North American Indian, Métis, or Inuit identity. The “Multiple Identity” response category includes respondents who reported belonging to multiple Aboriginal identity groups or who reported being Registered Indians/Band Members without Aboriginal identity. The “Registered Indians” category includes only the respondents who reported being registered under the Indian Act of Canada.
10. The “multiple responses” category contains aggregate counts for a great variety of Aboriginal people which could be disaggregated into a number of different categories. For instance, the multiple responses counts could stand for those individuals of mixed Aboriginal and non-Aboriginal ancestry. However, they could also be counts of those individuals who indicated two or more Aboriginal identities, such as North American Indian and Inuit. Finally, they could be the counts of individuals changing their reporting of their ethnic or cultural affiliation from one census to the next (INAC, 2003a; Guimond, 2003; Siggner, 2003; Goldmann, 2007).
11. See, for example, INAC (1989). The Indian Register is INAC’s administrative database that collects basic demographic and vital statistics data such as births, deaths, and marriages as well as the band membership of the registered Aboriginal population. By design, this database includes *all* Registered Indians, regardless of their place of residence, although the annual counts derived from it can be affected by late reporting of events (Statistics Canada, 2007).
12. Lavin and Gauthier (2001) discuss several challenges that made census enumeration difficult in some Aboriginal communities. These include remoteness and cultural and language difficulties, but most of all the “distrust of First Nations people in some areas towards any representatives of the Federal Government, in the wake of historical precedents such as relocations and residential schools”(p. 3).
13. Researchers should note that the sample size and the content of this survey is not necessarily a strength of this data source if one is interested in researching a specific group of Aboriginal people living in a specific Aboriginal community. For some regions, the sample size is minuscule and not much can be derived from the APS in terms of well-being in some Aboriginal communities, particularly if one relies on the public version of this data source.
14. The fieldwork in Saami settlement regions of Norway, Sweden, Finland, and the Kola Peninsula of Russia was delayed due to funding shortages. Thus, the present comparative SLiCA findings pertain only to Inuit people living

in Alaska (North Slope, North-West Arctic, Bering Straits census area), in Canada (Inuvialuit, Nunavik, Nunavut, Labrador Inuit land claims regions), in Greenland (all regions), and Chukchi, Inuit, Evan, Chuvan, and Yukagir living in Chukot-Chukotka, Russia (Anadyrskij, Anadyr, Shmidtovs, Beringovskij, Chukotskij, Iujl'tinskij, Bilibinskij, Chaunskij, Providenskij, and Uel'Kal' districts) (Kruse et al., 2008, pp. 109–110).

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