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STANDARDS

ECONOMIC ACTIVITY OF THE ON-RESERVE
ABORIGINAL IDENTITY POPULATION IN CANADA:
GROSS DOMESTIC PRODUCT ESTIMATES FOR
INDIAN RESERVES, 2000 AND 2005

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Economic Activity of the On-Reserve Aboriginal Identity Population in Canada: Gross Domestic Product Estimates for Indian Reserves, 2000 and 2005

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List of Acronyms

CSLS	Centre for the Study of Living Standards
FYFT	Full-Year, Full-Time
PYPT	Part-Year or Part Time
GDP	Gross Domestic Product
INAC	Indian and Northern Affairs Canada (renamed Aboriginal Affairs and Northern Development Canada in May 2011)

Economic Activity of the On-Reserve Aboriginal Identity Population in Canada: Gross Domestic Product Estimates for Indian Reserves, 2000 and 2005

Abstract

This report develops estimates of Gross Domestic Product (GDP) for reserves in Canada by estimating total earnings for reserves and multiplying these results by the national share of total earnings in income-based GDP. Two estimation approaches are used in the analysis. The first, which is the focus of this report, is a “top-down approach” based on provincial/territorial full year, full-time and part-year/part-time employment and average earnings data for the on-reserve Aboriginal population from the 2001 and 2006 Census. Estimates are also developed using a second, “bottom-up” approach that employs community-level average earnings and employment data from the 2006 Aboriginal Population Profiles. This second approach results in the development of reserve-specific GDP estimates for those reserves which had the required data available. The most notable finding of this report is that the on-reserve Aboriginal population in Canada, despite accounting for 0.99 per cent of the general Canadian population in 2006, accounted for just 0.30 per cent of national GDP in 2005.

Economic Activity of the On-Reserve Aboriginal Identity Population in Canada: Gross Domestic Product Estimates for Indian Reserves, 2000 and 2005

Executive Summary

This report develops provisional GDP and GDP per capita estimates for Indian reserves in Canada. Estimating GDP per capita for reserves, as well as monitoring this indicator over time, provides a picture, albeit an approximate one, of the economic activity on Indian reserves. Although severely limited by data constraints, this initiative is an important step in developing a better understanding of the economic situation of the on-reserve Aboriginal population in Canada.

Estimates of reserve GDP and GDP per capita are developed using two approaches in this report: the “bottom-up” approach and the “top-down” approach. The focus will be on the “top-down” approach, which generates GDP estimates for the on-reserve Aboriginal population at the provincial/territorial and national level based on 2001 and 2006 Census data. Specifically, this methodology estimates total earnings for both the on-reserve Aboriginal population and the general population by summing full-year, full-time (FYFT) and part-year/part-time (PYPT) total earnings, each respectively estimated as the product of the employment and average earnings recorded for FYFT and PYPT work from the Census. The share of total national earnings in national GDP for the general population is then calculated, and the inverse of this number is multiplied by the total earnings of reserves to estimate the GDP of reserves at the national and provincial/territorial level.

Before developing these GDP estimates, this report examines the current situation of Aboriginal Canadians living on-reserve in terms of the variables that are used to estimate total earnings, GDP and GDP per capita: population, working age population, employment rate and average earnings. In terms of population, the on-reserve Aboriginal population in Canada grew 7.8 per cent from 286,080 in 2001 to 308,490 in 2006, which was faster than the growth rate of the total population of Canada (5.4 per cent over the same five year period). As a result, the Aboriginal population residing on reserves rose from 0.97 to 0.99 per cent of the total Canadian population between 2001 and 2006. The on-reserve Aboriginal working age population also grew from 0.76 per cent of the Canadian working age population in 2001 to 0.80 per cent in 2006. At the national level, approximately 56 per cent of the total registered band population was residing on reserves in 2009.

On-reserve Aboriginal Canadians experienced a decrease between 2000 and 2005 in both their share of total employment in Canada, dropping from 0.60 to 0.54 per cent of the total employed population in Canada, and in their employment rate, which fell 8.6 percentage points from 54.0 to 45.4 per cent. This decrease in the total employment rate was largely due to a substantial decline in PYPT employment. The total employment rate for the general Canadian

population also fell, but not as dramatically, dropping 2.4 percentage points from 68.8 to 66.4 per cent.

On-reserve Aboriginal Canadians also experienced an overall deterioration in their share of total national earnings (a decline from 0.32 per cent in 2000 to 0.30 per cent in 2005), despite growth of 9.7 per cent in average earnings per worker between 2000 and 2005. Aboriginal people residing on reserves in the Northwest Territories enjoyed the highest average earnings per worker in 2005 (\$30,107 in 2005, current dollars). This is well above the national estimate for the on-reserve Aboriginal population (\$21,271 in 2005). In contrast, the lowest provincial/territorial average earnings per worker for on-reserve Aboriginal people (\$16,828), found in Newfoundland and Labrador, was almost half of the estimate obtained for the Northwest Territories.

Differences in the size of the working age population, in employment rates, and in average annual earnings per worker gave rise to substantial differences in total earnings, and therefore GDP, estimates for the on-reserve Aboriginal population across the provinces and territories. At the national level, reserve GDP increased from \$3.9 billion in 2000 to \$4.2 billion in 2005 (constant 2005 dollars). From 2000 to 2005, the real reserve GDP growth rate was estimated to be 7.1 per cent, roughly half of the growth rate of total Canadian GDP (13.4 per cent). Reserves in Canada collectively accounted for a meager 0.30 per cent of Canadian GDP in 2005, down from 0.32 per cent in 2000.

At the provincial/territorial level, several reserve GDP estimates fell well under one per cent of total provincial/territorial GDP in both 2000 and 2005. This partly reflects the relatively small size of the Aboriginal population living on reserves in these provinces. The share of provincial GDP was particularly low for reserves in Newfoundland and Labrador (0.11 per cent) and Ontario (0.13 per cent) in 2005. Moreover, a decrease in this share was found in Ontario, Alberta, British Columbia, Saskatchewan, and Manitoba between 2000 and 2005.

Reserve GDP per capita in Canada was estimated at \$13,503 in 2005, down from \$13,593 in 2000 (constant 2005 dollars), decreasing from 33.3 per cent of Canada's GDP per capita in 2000 to 30.7 per cent in 2005. Reserve GDP per capita in Nova Scotia, Manitoba, Saskatchewan and Alberta fell below the national estimate in both years. In addition, reserve GDP per capita was less than half of overall provincial/territorial GDP per capita in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Nova Scotia, New Brunswick, Newfoundland and Labrador and the Northwest Territories in 2005.

Reserves in the Northwest and Yukon Territories exhibited not only the highest GDP per capita estimates in 2000 and 2005, but also the fastest growth in this indicator. The estimated growth rate of GDP per capita for reserves in Canada was -0.7 per cent from 2000 to 2005, driven by negative growth rates in the reserve GDP per capita of Newfoundland and Labrador, Ontario, Manitoba, and British Columbia.

This report complements the "top-down" estimates by developing GDP estimates using a "bottom-up" approach. In this approach, 2005 GDP per capita estimates are developed for reserves that had the required employment and earnings statistics available from the 2006 Aboriginal Population Profiles. The results for each reserve are then aggregated to estimate

provincial/territorial and national GDP using the share of total earnings (which is estimated from average earnings and employment data taken directly from the Census) in GDP for the general Canadian population at the national level. A comparison of the results from the top-down and bottom-up approaches indicates that, despite significant differences in total earnings due to the lack of available data for many individual reserves, the GDP per capita estimates of these two approaches are remarkably similar.

Finally, in order to examine the sensitivity of these estimates to the assumption that the national share of earnings in GDP is the best reflection of the contribution of total earnings on reserves to income-based reserve GDP, GDP on reserves is also estimated using the provincial/territorial shares of total earnings in total GDP for the general population. There is significant variation in the provincial/territorial shares of total earnings in GDP, which is due to the different economic structures of the provinces and territories, and this results in significant differences in national share-based and provincial/territorial share-based GDP per capita estimates for some provinces. This is particularly true for Newfoundland and Labrador and Northwest Territories. This section therefore provides some empirical evidence in favour of employing the national, rather than the provincial/territorial, share of total earnings in GDP for estimating reserve GDP.

Overall, the most important finding of this research is that, despite accounting for 0.99 per cent of the general population in Canada in 2006, the total on-reserve Aboriginal population accounted for a meager 0.30 per cent of national GDP. To understand this result, the basis of the GDP estimates, total earnings, is decomposed into its three component variables (working age population, employment rate and average earnings). It is found that (i) the on-reserve working age Aboriginal population comprised 0.8 per cent of Canada's population aged 15 years and older in 2006 (ii) the Aboriginal identity employment rate on reserves is just 68 per cent of the general population's employment rate in 2005 and (iii) average earnings per worker of the on-reserve Aboriginal identity population is just over one half (56 per cent) of average earnings per worker of the general population of Canada in 2005. Thus, all three factors are contributing to the low total earnings and GDP per capita estimates, although the low average earnings per worker result is the most significant contributor at the national level. Altogether, this paints a very bleak picture of the state of economic development prevailing in reserves across Canada from 2000 to 2005.

This is particularly worrying because the Aboriginal population is young and growing quickly, accounting for 14.3 per cent of total population growth in Canada from 1996 to 2006. In order to improve the living conditions of Aboriginals and foster the participation of young Aboriginals in the Canadian economy, it is important to have sustained economic development on Indian reserves and settlements. However, persistent barriers to economic progress on Indian reserves and poor labour market outcomes of the on-reserve Aboriginal population have been well documented. It is therefore crucial to continue to measure and monitor key indicators of economic development, such as GDP, in order to understand both the challenges and progress made by the Aboriginal population residing on reserves.

Economic Activity of the On-Reserve Aboriginal Identity Population in Canada: Gross Domestic Product Estimates for Indian Reserves, 2000 and 2005¹

I. Introduction

a) Background and Motivation

This report develops provisional GDP and GDP per capita estimates for Indian reserves in Canada. Estimating GDP per capita for reserves, as well as monitoring this indicator over time, provides a picture, albeit an approximate one, of the economic activity on Indian reserves. Although severely limited by data constraints, this initiative is an important step in developing a better understanding of the economic situation of the on-reserve Aboriginal population in Canada.

This analysis is in part motivated by the rapid growth in the Aboriginal population in Canada in recent years. Between 1996 and 2006, the Aboriginal population in Canada grew by 45 per cent, almost six times faster than the non-Aboriginal population (Statistics Canada, 2006). Just under one half (48 per cent) of the Aboriginal population was 24 years of age and younger in 2006, while this age group represented only 31 per cent of the non-Aboriginal population in the same year (Statistics Canada, 2006). Moreover, the on-reserve Aboriginal population accounted for 14.3 per cent of total Canadian population growth from 1996-2006 (Sharpe et al., 2009). The fact that the Aboriginal population represents a growing share of Canadian youth, and therefore also of the future Canadian labour force, calls for close monitoring of indicators of economic development affecting this segment of the Canadian population, particularly on Indian reserves and settlements.²

Unfortunately, indicators of economic development are relatively limited for the on-reserve Aboriginal population. This report aims to develop earnings-based estimates of GDP per capita for Canadian reserves, and describes some of the methodological issues and data limitations encountered during this process.³ Estimates of reserve GDP and reserve GDP per capita are provided at the provincial/territorial and national level, as well as for a few individual reserves. This report also aims to highlight the main challenges associated with the use of community-level data for analytical purposes.

¹ Evgenia Tsirolnitchenko was an Economist at CSLS at the time of writing and is now an Analyst at the Treasury Board of Canada. Elspeth Hazell is an Economist at CSLS. This report was written under the supervision of Andrew Sharpe. The authors would like to thank Simon Lapointe and Bert Waslander for comments.

² Henceforth, the term “reserves” encompasses both Indian reserves and Indian settlements.

³ Technically, this report is estimating the Gross Domestic Income (GDI) of reserves, because GDI is defined as the sum of compensation of employees, taxes on production and imports, and net operating surplus less subsidies, while GDP is the value of all goods and services produced and sold to final users. However, $GDI=GDP$ in current dollars, so this is not an unreasonable way to estimate GDP. See Ross and Murray (2010) for more information on national accounts income aggregates.

There are six parts to this report. The next section reviews key concepts, provides definitions of variables that are of particular importance to this analysis, and outlines the main issues related to data availability, enumeration, and inter-census comparability. The third section provides an overview of some of the existing economic indicators for the Aboriginal identity population in 2001 and 2006, focusing on changes in the working age population, employment, total earnings, and average earnings per worker for the Aboriginal population residing on reserves. Section four presents estimates of reserve GDP and GDP per capita by province/territory and for Canada, and discusses the changes observed for these estimates between 2000 and 2005 at the national and provincial/territorial level. This section also examines the sensitivity of the GDP estimates to the use of the provincial/territorial, rather than national, share of earnings in GDP, and decomposes total earnings, and therefore GDP, into its determining components. The last section concludes and offers suggestions for future research.

II. Definitions and Data Sources

a) Key Definitions

i. “Reserve” as a Legal Concept

Canada’s Indian Act defines an Indian reserve as a “tract of land, the legal title to which is vested in Her Majesty, that has been set apart by Her Majesty for the use and benefit of a band.” Any given First Nation or Native Band may occupy more than one reserve. Conversely, in some cases, more than one First Nation or Native band reside on a single reserve. This is most commonly observed in Ontario, Alberta and British Columbia. Where reserves are situated on or along provincial/territorial borders, a band originating from one province/territory may reside on a reserve in another province. This phenomenon is most commonly observed along the Ontario/Québec border and the British Columbia/Yukon Territory border.

ii. “Reserve” as a Geographical Concept

‘Census subdivision’ (CSD) is a general term representing municipalities and areas treated as municipal equivalents for statistical purposes including Indian reserves, Indian settlements and unorganized territories. There are eight Census subdivision (CSD) types associated with the “on reserve population,” based on the legal definition of communities affiliated with First Nations or Indian Bands. The three most important⁴ are:

1. Indian reserve – A tract of federally owned land with specific boundaries that is set apart for the use and benefit of an Indian Band and that is governed by Indian and Northern Affairs Canada (INAC⁵).
2. Indian settlement – An area where at least 10 Indian (Aboriginal) persons reside on a fairly permanent basis. Distinguishing itself from Indian reserves, this type of CSD has no official geographic boundaries and is not set apart for the use and benefit of an Indian Band.
3. Indian government district – under the Sechelt Indian Band Self-Government Act, this Census subdivision (CSD) type represents Sechelt reserve lands in British Columbia. The Act recognizes that the Sechelt Band assumes complete responsibility for the management, administration and control of all Sechelt lands, with the district Council as the governing body of the Sechelt Indian Government District.

⁴ The other five CSD types are (i) Terres réservées aux Cris– Areas of land that are designated for the permanent residence of Cree First Nations of Québec. There are eight Terres réservées aux Cris in Québec. (ii) Terres réservées aux Naskapis– Areas of land that are apportioned for the permanent residence of Naskapi First Nations of Québec. Taking into account that the type of CSD for reserves that are not enumerated is not available, there is only one known Terres réservées aux Naskapis in Québec (Kawawachikamach). (iii) Nisga’a village– Areas of land corresponding to the four former Bands of the Nisga’a Nation that became villages with the 1998 Final Land Claims Agreement between the Nisga’a Nation, the Government of Canada and the Government of British Columbia. These four villages are Gingolx, Gitwinksihlkw, Laxgalts’ap and New Aiyansh. (iv) Nisga’a land – Part of the territory whose title has been transferred to the Nisga’a Nation by the 1998 Final Land Claims Agreement between the Nisga’a Nation, the Government of Canada and the Government of British Columbia. (v) Teslin land – An area of land whose title has been transferred to the Teslin Tlingit Council by the 1993 Teslin Tlingit Council Land Claims Agreement between the Teslin Tlingit Council, the Government of Canada and the Government of the Yukon (Statistics Canada, 2007). There are three Teslin Lands in Yukon Territory (Teslin Post 13, Nisutlin 14, and Nisutlin Bay 15).

⁵ Indian and Northern Affairs Canada was renamed Aboriginal Affairs and Northern Development Canada in May 2011.

The “on reserve population” therefore includes all people living in any one of the eight types of CSD which are legally affiliated with First Nations or Indian bands, as well as those people living in selected CSDs in Saskatchewan, the Northwest Territories and the Yukon Territory that have large concentrations of Registered Indians (Statistics Canada, 2007). As per the official definitions, there are no reserves or Indian settlements in Nunavut.

iii. Defining the Aboriginal Population

The Aboriginal population is classified into three groups: North American Indians, Métis, and Inuit. All of these groups are classified as “Aboriginal” in the Canadian Census, which asks individuals to self-identify their Aboriginal heritage or identity (multiple responses are accepted).⁶

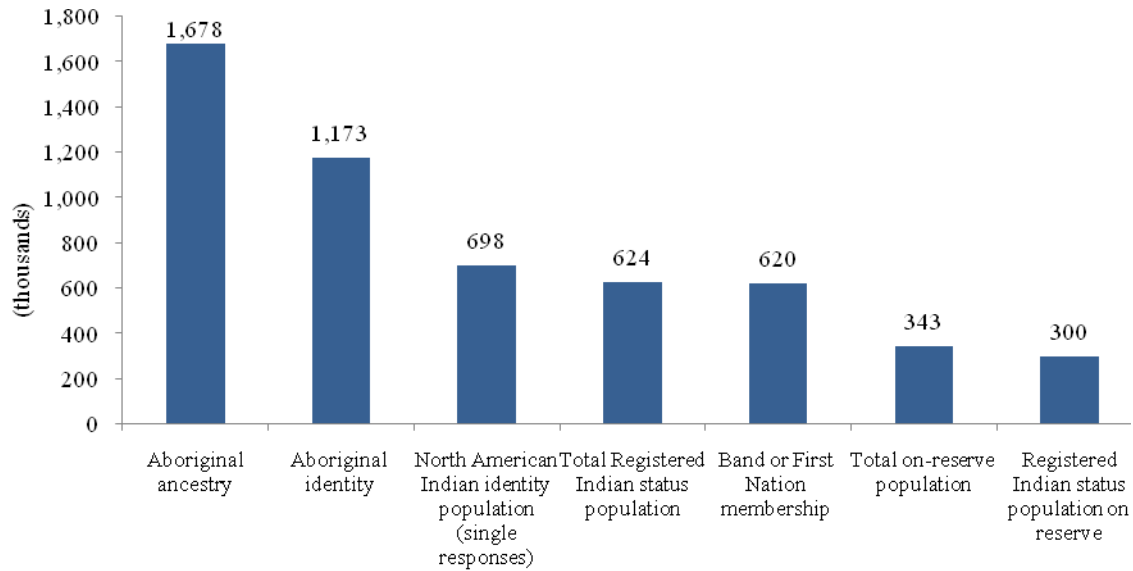
In the Census, four concepts are commonly used to provide a breakdown of the Aboriginal population: (i) Aboriginal ancestry, (ii) Aboriginal identity, (iii) Band or First Nation membership, and (iv) Registered Indian status. “Aboriginal identity” refers to those persons who reported that they self-identify with at least one Aboriginal group (i.e. North American Indian, Métis or Inuit), and/or those who reported being a Treaty Indian or a Registered Indian, and/or those who reported they were members of an Indian band or First Nation.

“Aboriginal ancestry” is a concept that encompasses a larger population, referring to those persons who reported at least one Aboriginal ancestry (North American Indian, Métis or Inuit) to the ethnic origin question in the Census. “Band or First Nation membership” is a much smaller group of people, referring only to those persons who reported being a member of an Indian band or a First Nation of Canada. “Registered Indian” refers to those persons who reported that they are registered under Canada’s *Indian Act*. Finally, “Treaty Indians” are defined by the Census as “persons who are registered under the *Indian Act* and can prove descent from a band that signed a treaty” (Statistics Canada, 2009b).

Out of these census concepts, Aboriginal ancestry (1,678,000 individuals) accounted for the largest proportion of the Canadian population in 2006 (5.4 per cent), followed by the Aboriginal identity population (1,173,000 individuals or 3.8 per cent of Canada’s population) (Chart 1 and Chart 2). The number of individuals with Registered Indian status and membership in a First Nation stood at about 53.2 and 52.9 per cent of the total Aboriginal identity population, respectively. According to Census data, about 87 per cent of the on-reserve population at the national level had Registered Indian status in 2006 (Statistics Canada, 2006).

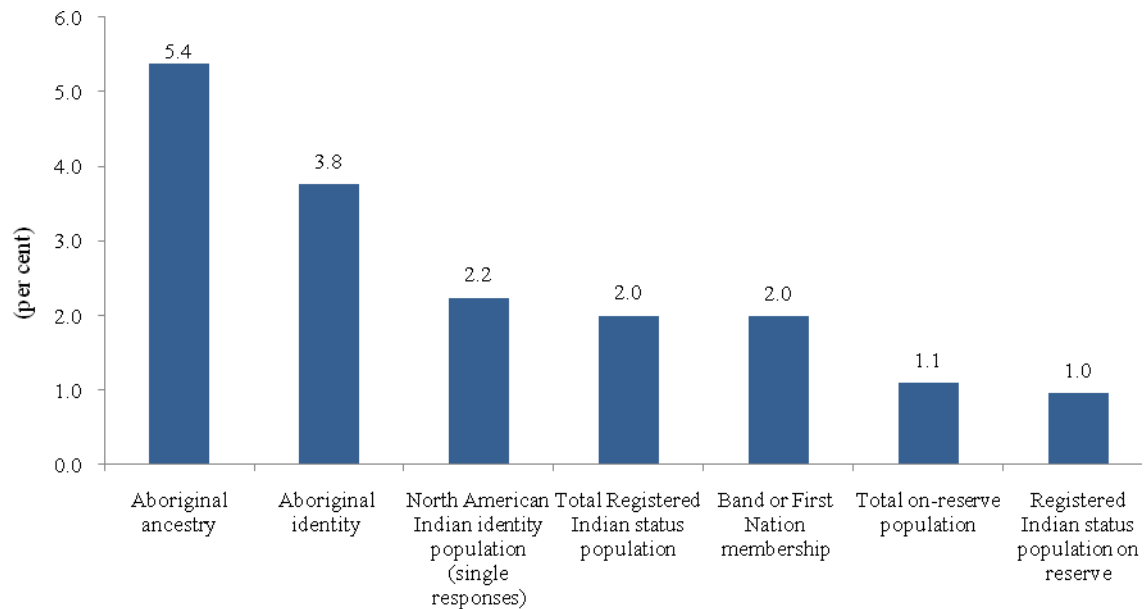
⁶ The Census Aboriginal identity population in the 2006 Census includes the following sub-groups: (i) Total Aboriginal identity population; (ii) North American Indian response only, (iii) Métis response only, (iv) Inuit response only, (v) Multiple Aboriginal responses, and (vi) Aboriginal responses not included elsewhere, a category that includes those who reported themselves as being Registered or Treaty Indians and/or band members without reporting Aboriginal identity. A couple of important considerations arise from this. First, some individuals report that they identify with more than one of the three Aboriginal groups. Second, some individuals do not identify with any of these three Aboriginal groups, even though they report having registered Indian status.

Chart 1: Population Counts by Aboriginal Population Concepts, Canada, 2006



Sources: Statistics Canada Aboriginal Peoples Technical Report, 2006 Census, Catalogue no. 92-569-X.
 Statistics Canada, 2006 Topic-based Tabulations, Cat. No. 97-558-X2006010.
 Statistics Canada, 2006 Topic-based Tabulations, Cat. No. 97-558-X2006006.

Chart 2: Population by Aboriginal Population Concept as a Percentage of National Population, Canada, 2006



Sources: Statistics Canada Aboriginal Peoples Technical Report, 2006 Census, Catalogue no. 92-569-X.
 Statistics Canada, 2006 Topic-based Tabulations, Cat. No. 97-558-X2006010.
 Statistics Canada, 2006 Topic-based Tabulations, Cat. No. 97-558-X2006006.

b) Data Sources and Indicators

Several sources of data were required to obtain estimates of reserve GDP for the Canadian provinces and territories. The analysis presented here utilizes six main sources of data:

1. Statistics Canada (CANSIM), Provincial economic accounts, income-based GDP at market prices (annual)
2. Statistics Canada (CANSIM), Consumer Price Index Series, Canada, All-items;
3. Statistics Canada, Census-based 2001 and 2006 Topic-based tabulations – Aboriginal Peoples;
4. Aboriginal Canada Portal – Connectivity Profiles;
5. Statistics Canada, 2006 Aboriginal Population Profiles;
6. Indian and Northern Affairs Canada – First Nation Profiles.

A complete set of variables that were either retrieved or derived from 2001 and 2006 Census topic-based tabulations are outlined in Appendix Table 8.

This report will present both “top-down” and “bottom-up” GDP estimates for reserves, focusing on the results at the provincial/territorial level. The “top-down” approach GDP estimates, which are the focus of this report, are derived using provincial full-year, full-time (FYFT) and part-year/part-time (PYPT) earnings and employment data for on-reserve Aboriginals. The data for this approach are taken from the 2001 and 2006 Censuses, which provide estimates of population for 2001 and 2006, respectively, but employment and average income indicators for 2000 and 2005.

A “bottom-up” approach, which uses reserve-level data, is also employed. In this approach, reserve-level average earnings and employment data are used to calculate the GDP of individual reserves, and these results are aggregated to obtain estimates for each province or territory. The reserve-level data needed for this approach were only collected for 2005. It follows that reserve-specific GDP estimates were derived for 2005 only. The details of both methodologies will be presented later in the report.

GDP estimates from both methods are presented in the Appendix.⁷ National and provincial/territorial data on population, employment and earnings for reserves from the 2001 and 2006 Census are provided in the next section. GDP estimates for reserves are presented and discussed in Section IV of this report.

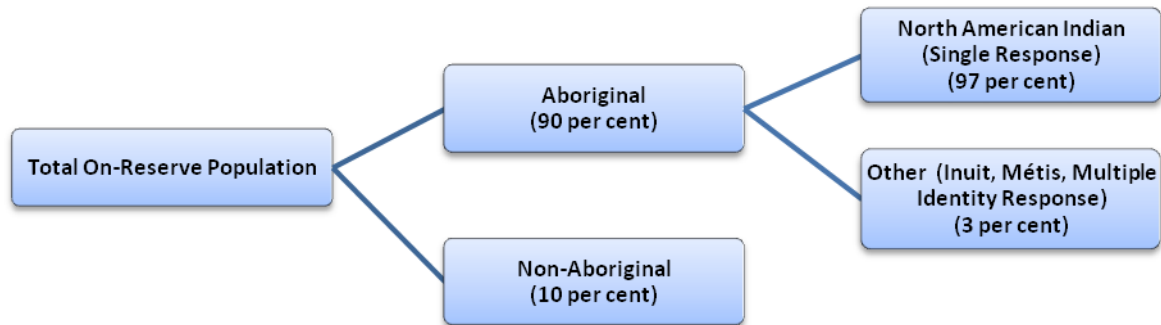
i. Population

Since GDP is a geographical concept, the income-based estimation approach requires that the population considered be clearly defined. In order to obtain detailed information on reserves and the on-reserve population considered in estimating reserve GDP, exhaustive lists of reserves in each province and territory were retrieved from the Aboriginal Canada Portal. This report focuses on Aboriginal identity population living on reserves, a group that forms 90 per cent of

⁷ Two extra appendices with detailed bottom-up approach data for the provinces and individual reserves may be downloaded from the CSLS website at http://www.csls.ca/res_reports.asp

the total on-reserve population at the national level in 2006 (308,490 individuals out of 342,865) (Statistics Canada, 2006). Of the Aboriginal identity population residing on Indian reserves, 97 per cent (or 300,755 individuals) identify themselves as North American Indian in 2006 (single responses).⁸

Exhibit 1: Reserve Population Breakdown



Reserves with zero population in 2001 and 2006 were excluded from the final listings. All remaining reserves were subsequently linked to a band. As not all of the registered band population resides on Indian reserves, data on total registered band population, registered band population residing on reserves, and the overall community-reported band population were retrieved from INAC administrative files.

ii. Employment and Earnings

Under the top-down approach, total employment was derived from the addition of FYFT and PYPT employment. An employment rate for each year is also derived using this number and the working age population. The FYFT and PYPT employment numbers were then multiplied by average earnings data for FYFT and PYPT work, respectively. These total FYFT and total PYPT earnings were then summed to derive total earnings for the Aboriginal identity population residing on reserves.⁹

For the bottom-up approach, the Aboriginal Population Profiles from the 2006 Census provided aggregate employment and average earnings statistics at the reserve level for the on-reserve Aboriginal population for 2005.¹⁰ Average earnings and employment for the general population were taken directly from the census at the provincial/territorial level.

Since there are statistical discrepancies between the employment figures used in each approach, the two approaches will result in slightly different total earnings estimates for the on-reserve Aboriginal population. Thus, these approaches would produce slightly different reserve

⁸ The Aboriginal identity population, except that of Nunavut and Newfoundland and Labrador, predominantly identifies as North American Indian (in single responses) (Statistics Canada, 2006).

⁹ The aggregate employment statistic, which is a count of Aboriginal identity individuals 15 years of age and older with employment income in a given year, was readily available for 2005 but not for 2000.

¹⁰ Since community-level data for 2000 is available, future research is encouraged to apply similar methodology to obtain and analyze reserve-specific GDP estimates for 2000.

GDP estimates in 2005 even if the necessary reserve-level data was available for all reserves in 2005. The top-down and bottom-up estimates of GDP will be compared at the provincial/territorial level later in this report.

c) Data Limitations

i. Enumeration of On-Reserve Aboriginal Population

A number of challenges arise from using community-level data. In general, communities fall into three categories with respect to their population: (i) completely enumerated, (ii) incompletely enumerated, and (iii) not enumerated. Incomplete enumeration arises when “enumeration was not permitted or was interrupted before it could be completed.” A total of twenty-two reserves were incompletely enumerated in the 2006 Census population counts. They are listed in Appendix Table 9. These reserves, among others, were also not enumerated in the 2001 Census. Reserve-level data for the incompletely enumerated reserves and settlements are thus not available and are not included in provincial/territorial tabulations. According to Statistics Canada, the total population on incompletely enumerated reserves in 2006 represents 12 per cent of total on-reserve population in 2006 and 13 per cent of on-reserve Aboriginal identity population in 2006 (40,115 out of 342,865 and 308,490, respectively) (Statistics Canada, 2006).

As a result of incomplete enumeration, caution must be exercised in making comparisons between 2001 and 2006 Census data for the affected geographic areas. While the impact of the missing data in terms of accuracy is very small at the national, provincial/territorial, census metropolitan area and census agglomeration level, it is substantial for smaller geographical areas such as reserves (Statistics Canada, 2008a).

While the population residing on some reserves was not enumerated at all, it is difficult to identify these reserves and separate them from reserves that were enumerated under a broader geographic category (e.g. a Village or a Hamlet), so no community profile specific to such Indian reserve or settlement is provided.

Also, as the lists of reserves retrieved from INAC included dissolved communities with zero population, the official number of reserves significantly overestimates the actual number of reserves in Canada. This is particularly true for the provinces of British Columbia and Saskatchewan, where a substantial percentage of reserves, while officially listed in administrative files, have no information in the 2006 Aboriginal Population Profiles.

ii. Other Data Limitations

The data available for this report are limited by the confidentiality policy of Statistics Canada. This policy affects very small reserves because it suppresses income data and related statistics when the non-institutional population is less than 250 individuals or 40 private households. With British Columbia holding a disproportionate share of sparsely populated reserves, it once again stands as the province most affected by incomplete data. This issue may also potentially affect comparisons over time as many reserve populations hover close to the confidentiality threshold.

Another data issue is that, since the community profile information is based on Census data, the 2006 Aboriginal Population Profiles provide population data for 2006 but employment and earnings data for 2005. This gives rise to a one year gap between total annual earnings estimates and the population counts.

Furthermore, no information on location of work, which may differ from the geographic area of residence, is available for the on-reserve population. As a result, no comparison can be made between the Aboriginal identity population residing and working on-reserve and those working outside their reserve of residence.

Overall, 96 per cent of the total on-reserve population in Canada was captured by the 2006 Census-based Aboriginal Population Profiles (329,677 out of 342,865) (Appendix Table 5). Out of the Aboriginal population on reserves, 79 per cent was captured through the same source (243,070 out of 308,490). Despite the limitations arising from the incomplete enumeration in 2006 Census population counts, 75 per cent of the employed Aboriginal identity population residing on reserves was captured through the 2006 Aboriginal Population Profiles (81,070 out of 107,390) (Appendix Table 6). These form the basis for the 2005 estimates of reserve-specific GDP in the bottom-up approach.

There were 2,879 official First Nations reserves in Canada in 2009, out of which a total of 866 reserves had total population information available from the Census-based 2006 Aboriginal Population Profiles (Appendix Table 3). A total of 328 had data on the resident Aboriginal identity population and non-zero counts for this group, while 44 had zero population. Out of all reserves with positive Aboriginal population counts in 2006, 313 had information on education attainment, labour market participation, employment, unemployment, and average earnings. These reserves represent 78 per cent of the total Aboriginal population residing on reserves in Canada in 2006 (241,325 out of 308,490), and 76 per cent of the total on-reserve population in the same year (260,485, out of 342,865) (Statistics Canada, 2006). Details concerning percentages of the relevant population captured by the Aboriginal Population Profiles for each province and territory are provided in Appendix Table 5.

iii. Population Counts by Aboriginal Population Concept

Based on the information provided in the administrative files of INAC, there were 626 bands in Canada with 687,907 registered band members as of July 2009. Just over a half (55.7 per cent) of these registered band members were residing on reserves (Appendix Table 4). According to the Census data, however, Band or First Nation membership counts stood at 620,340 individuals.

Statistics Canada cautions that changes in the definition of geographic boundaries may take place from one census to another. In order to facilitate comparison, the 2001 Census counts were adjusted by Statistics Canada, as needed, to take into account boundary changes between the 2001 and 2006 Censuses. In some cases, corrections to the 2001 population counts were made in the absence of boundary changes.

III. A Portrait of Aboriginal Identity Population in Canada, 2001 and 2006

Under the standard income-approach to estimating GDP, five sources of private and public income are summed. These are: (i) rents, (ii) interest income, (iii) profits of corporate and unincorporated businesses and dividends, (iv) wages and salaries (and security benefits), (v) corporate income taxes and taxes less subsidies on production and imports. While it is not the only component, employment income is an important element of GDP. In 2005, total earnings of the general population accounted for approximately 48 per cent of national GDP. It follows that key determinants of total earnings play an important role in determining GDP.

The magnitude of the potential total earnings of a given population in a given period of time is determined by the following factors: (i) the size of the working age population, (ii) participation rate, (iii) employment, including the nature of employment (i.e. FYFT or PYPT employment), (iv) human capital of the working age population, and (v) the health of the working age population. The analysis in this report focuses only on the following three variables: (i) the size of the on-reserve Aboriginal identity working age population (the population 15 years of age and older), (ii) the employment rate for the Aboriginal identity population residing on reserves, and (iii) the average earnings of the on-reserve population. This section provides a detailed discussion of these variables across the provinces and territories based on the information provided in the 2001 and 2006 Census. These three indicators are presented in absolute terms and relative to the figures for the general population in a given province/territory and in Canada.

Before undertaking a closer examination of these variables, a mention of closely related indicators that are not part of the forthcoming discussion is in order. They are the following: (i) human capital indicators, such as education attainment and experience or job tenure, (ii) a capital-intensity indicator associated with the main industries of employment by province and territory, (iii) job mobility indicators, (iv) industry of work indicators, (v) distinction between earnings from self-employment and wages and salaries, (vi) sources of income other than earnings, such as government transfers, employment benefits and various tax concessions, (vii) gender-based differences in labour market outcomes of the on-reserve Aboriginal population. Future research is encouraged to pursue these additional lines of inquiry.

a) On-Reserve Population in Canada and the Provinces

This section will review trends observed for the Aboriginal identity population in Canada. One noteworthy trend is the decline in the proportion of the Aboriginal identity population living on reserves. About 26 per cent of the Aboriginal identity population in Canada resided on reserves in 2006, down from 29 per cent in 2001. The faster growth of the Aboriginal identity population residing off-reserve than on-reserve explains this decrease. However, while the population of Canada grew by 5.4 per cent over the course of five years, from 29,639,035 in 2001 to 31,241,030 in 2006, on-reserve Aboriginal identity population grew by a notable 7.8 per cent, from 286,080 in 2001 to 308,490 in 2006 (Table 1).

Table 1: On-Reserve Aboriginal Population and Overall Population, by Province/Territory and for Canada, 2001 and 2006

	Population in 2001				Population in 2006			
	On-Reserve Aboriginals		General Population		On-Reserve Aboriginals		General Population	
	Total	Percentage 15 years and older	Total	Percentage 15 years and older	Total	Percentage 15 years and older	Total	Percentage 15 years and older
Canada	286,080	63.3	29,639,035	80.6	308,490	66.2	31,241,030	82.1
NFL	755	74.8	508,080	82.5	1,435	67.2	500,610	84.4
PEI	375	65.3	133,385	80.0	400	67.5	134,205	82.1
NS	7,370	62.3	897,565	81.6	7,980	64.7	903,090	83.8
NB	6,025	65.5	719,715	81.9	7,005	68.5	719,650	83.6
QC	32,800	64.6	7,125,580	81.9	33,810	66.5	7,435,905	83.2
ON	40,495	65.6	11,285,550	80.2	47,515	67.6	12,028,900	81.6
MB	52,060	60.0	1,103,700	78.8	56,765	62.7	1,133,515	80.1
SK	47,070	58.4	963,155	78.4	49,015	62.3	953,850	80.3
AB	37,490	60.5	2,941,150	78.9	41,275	63.5	3,256,355	80.6
BC	46,380	69.7	3,868,875	81.7	51,055	72.9	4,074,385	83.3
YK	1,955	75.4	28,520	78.8	1,970	77.4	30,190	81.1
NWT	13,285	66.8	37,105	72.6	10,260	69.9	41,055	75.8
NU	n/a	n/a	26,665	62.6	n/a	n/a	29,325	66.0

Source: Appendix Table 1

In 2006, Manitoba contained the largest proportion of the total Canadian on-reserve Aboriginal population (18.4 per cent), followed by British Columbia (16.5 per cent), Saskatchewan (15.9 per cent), and Ontario (15.4 per cent) (Table 3). All provinces/territories experienced an increase in their on-reserve Aboriginal population from 2001 to 2006, with the exception of the Northwest Territories, which lost almost one quarter (22.8 per cent) of its on-reserve Aboriginal population (Table 2).

Table 2: Growth Rate of the On-Reserve Aboriginal Population and the General Population, by Province/Territory and for Canada, 2001-2006

Province/ Territory	Change in the On-Reserve Aboriginal Population from 2001 to 2006 (Per cent)	Change in the General Population from 2001 to 2006 (Per cent)
NFL	90.1	-1.5
PEI	6.7	0.6
NS	8.3	0.6
NB	16.3	0.0
QC	3.1	4.4
ON	17.3	6.6
MB	9.0	2.7
SK	4.1	-1.0
AB	10.1	10.7
BC	10.1	5.3
YK	0.8	5.9
NWT	-22.8	10.6
NU	n/a	10.0
CAN	7.8	5.4

Source: Table 1.

Note: Statistics Canada cautions against comparing the Northwest Territories 2006 Census population counts with counts from the 2001 Census, arising as the estimated 2001 net undercount for the Northwest Territories (8.11 per cent) surpassed the undercount estimate for the nation as a whole (2.99 per cent) by roughly 5 percentage points (Statistics Canada, 2008b).

As indicated by Table 3, there has been a very modest gain (of 0.02 percentage points) in the on-reserve Aboriginal identity population's share in Canada's total population from 2001 to 2006 (0.97 per cent to 0.99 per cent). During the same time period, reserves gained 0.04 percentage points in their share of both Aboriginal working age population (15 and older) and the Aboriginal population aged 0-14. The entire Aboriginal population in Canada grew about four times faster than the entire Canadian population from 2001 to 2006, but the Aboriginal population did not grow as quickly on reserves as it did elsewhere in Canada. Indeed, the First Nations population grew 10.4 per cent on-reserve compared to 18.1 per cent off-reserve between 2001 and 2006 (TD Bank Financial Group, 2009).

Over the same five year period, the Northwest Territories saw the on-reserve Aboriginal population's share of the general provincial population decline significantly (by 10.81 percentage points).¹¹ Yukon Territory, Alberta and Québec also saw declines in this share, but the magnitude was much smaller (declines of 0.33, 0.01 and 0.01 percentage points, respectively). The largest growth in the share of the on-reserve Aboriginal population was in Manitoba, which saw an increase of 0.29 percentage points.

¹¹ The key factor contributing to this decline appears to be a large drop of 12.35 percentage points (from 43.45 per cent in 2001 to 31.10 in 2006) in the on-reserve Aboriginal identity population's share of the territory's total population aged 0-14. A smaller drop in this share occurred for the age group of 15 and older, a decline of 9.88 percentage points from 32.92 per cent in 2001 to 23.04 per cent in 2006. The reverse was true for Yukon Territory, which experienced a loss of 0.14 percentage points in the Aboriginal identity population's share of the 0-14 age group and a loss of 0.33 percentage points in the Aboriginal identity population's share of those 15 years of age and older.

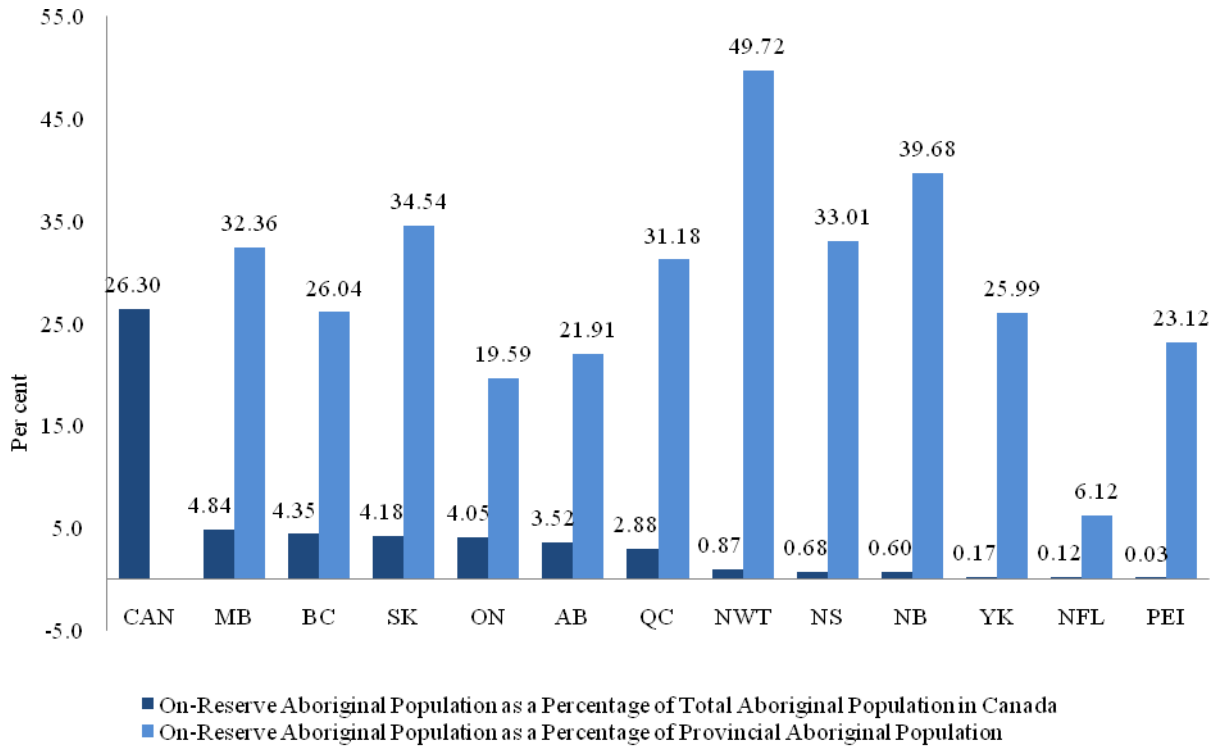
In 2006, the Aboriginal population on Indian reserves represented almost 1 per cent of the total population in Canada and 26 per cent of the total Aboriginal population in Canada. At the provincial/territorial level, the on-reserve Aboriginal population represented by far the largest share of the general population in the Northwest Territories, standing at 24.99 per cent in 2006 (Chart 4). At the same time, reserves in the Northwest Territories contained only 0.87 per cent of the total Aboriginal population in Canada. Aboriginal people residing on reserves in Yukon Territory, Saskatchewan and Manitoba also represented a relatively large share of the general provincial/territorial population (6.53, 5.14, and 5.01 per cent, respectively) (Table 3, Chart 4). The on-reserve Aboriginal population in the remaining provinces and territories did not account for more than 1.3 per cent of the general population in that province or territory in 2006.

Table 3: Share of the On-Reserve Aboriginal Population in the Canadian Population and Distribution by Province, 2001 and 2006

	On-Reserve Aboriginal Population as a Percentage of the General Population in 2001	On-Reserve Aboriginal Population as a Percentage of the General Population in 2006	Percentage Points Change in the Share of the On-Reserve Aboriginal Population	On-Reserve Aboriginal Population as a Percentage of Total Canadian On- Reserve Aboriginal Population in 2001	On-Reserve Aboriginal Population as a Percentage of Total Canadian On- Reserve Aboriginal Population in 2006
NFL	0.15	0.29	0.14	0.3	0.5
PEI	0.28	0.30	0.02	0.1	0.1
NS	0.82	0.88	0.06	2.6	2.6
NB	0.84	0.97	0.14	2.1	2.3
QC	0.46	0.45	-0.01	11.5	11.0
ON	0.36	0.40	0.04	14.2	15.4
MB	4.72	5.01	0.29	18.2	18.4
SK	4.89	5.14	0.25	16.5	15.9
AB	1.27	1.27	-0.01	13.1	13.4
BC	1.20	1.25	0.05	16.2	16.5
YK	6.85	6.53	-0.33	0.7	0.6
NWT	35.80	24.99	-10.81	4.6	3.3
NU	0.00	n/a	n/a	n/a	n/a
Canada	0.97	0.99	0.02	100.0	100.0

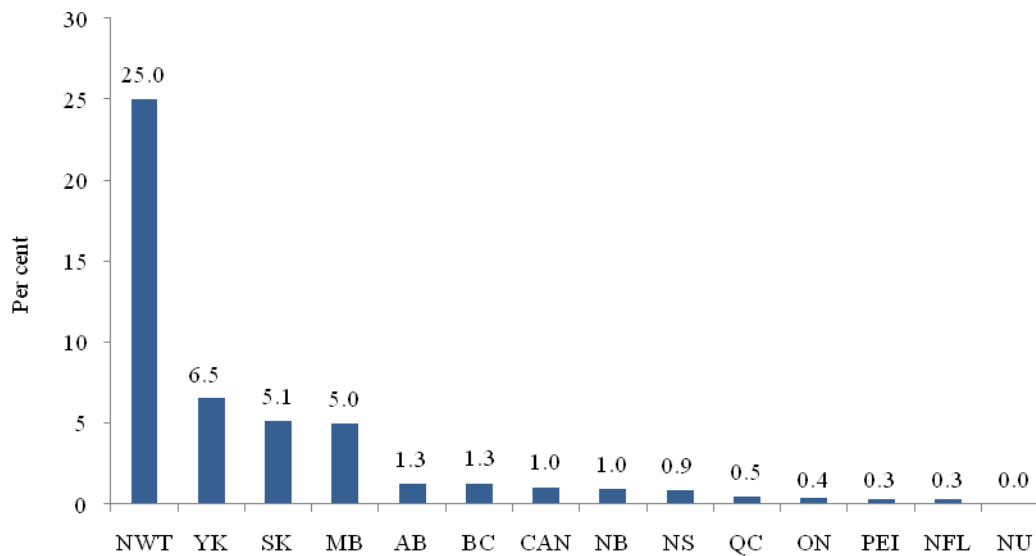
Source: Table 1 and Appendix Table 2

Chart 3: On-Reserve Aboriginal Identity Population as a Percentage of the Aboriginal Population, by Province/Territory, and for Canada, 2006



Source: Statistics Canada 2006 Topic Based Tabulations, Cat. No. 97-564-X2006002 and Cat. No. 97-558-X2006006.

Chart 4: On-Reserve Aboriginal Identity Population as a Percentage of the General Population, by Province/Territory and for Canada, 2006



Source: Statistics Canada 2006 Topic Based Tabulations, Cat. No. 97-564-X2006002 and Cat. No. 97-558-X2006006.

i. Band and Reserve Population

Passed in June 1985, Bill C-31 was a significant amendment to the *Indian Act*, introducing less discriminatory rules on obtaining and maintaining Registered Indian Status, enabling bands to develop their own membership rules (subject to certain restrictions), and providing new by-law powers for bands, which include controlling who lives on-reserve. Since the *Indian Act* makes Registered Indians residing both on and off-reserve eligible for non-insured health benefits and financial assistance for post-secondary education, this Bill led to a surge in the Registered Indian population, particularly off-reserve (Furi and Wherrett, 2003).¹² Thus, the number of registered band members residing on reserves in any given year falls short of the total number of registered band members (as of June, 2009). Indeed, at the national level, just over a half (approximately 56 per cent) of the total registered band population was residing on reserves in 2009.

Despite the surge in the number of registered band members in the late 1980s, most bands in Canada are still relatively small in terms of population size. The majority (58.7 per cent) of the registered bands had populations of 1,000 or less in 2009 (Appendix Table 4). Over three quarters of the registered bands (81.0 per cent) had fewer than 2,000 individuals in the same year. No band in Canada had over 11,000 thousand members as of June, 2009, while 97.3 per cent of bands had 5,000 or fewer registered members.

Only 3 per cent of bands had 100 or fewer registered members in 2009. The majority of these small bands were in British Columbia (12 bands), while the rest were in Ontario (3 bands) and Northwest Territories (1 band). The largest proportion of bands with more than 3,000 members were found in Manitoba (10 bands), followed by Ontario (9 bands), Alberta (8 bands), Québec (7 bands), Saskatchewan (7 bands), British Columbia (3 bands), and Nova Scotia (1 band) (Appendix Table 4).

In 2009, the provinces of British Columbia and Ontario had the largest number of bands (196 and 137 bands, respectively), collectively accounting for 53 per cent of 626 bands in the country (Table 4). In the same year, Saskatchewan contained the largest total registered band population (127,443 registered band members).

¹² The *Indian Act* calls for the provision of certain facilities and services to Indian communities on reserves over and above those available to the Aboriginal population of Canada residing off-reserve. For example, the federal government is to provide funds for housing, elementary and secondary education, health services and social assistance to Registered Indians living on reserves. However, new registrants under Bill C-31 were often restricted or discouraged from living on-reserve by bands concerned about shortage of land, resources, housing, infrastructure, and other facilities on their reserves (Furi and Wherrett, 2003).

Table 4: Reserve and Band Population Sizes, by Province/ Territory and for Canada

Province/ Territory	Average Registered Band Population (Registered Population as of June, 2009)	Total Number of Bands	Number of Bands with Positive 2009 Registered Population Counts	Total Registered Band Population as of June, 2009	Number of Reserves with 2001 and 2006 Population Information	Total Population for Reserves with 2006 Census Population Information	Average Population Size of a Reserve in 2006
NFL	1,573	3	3	4,718	2	1,573	787
PEI	n/a	2	0	n/a	4	445	111
NS	1,125	13	11	12,374	21	8,442	402
NB	930	15	14	13,134	18	7,586	421
QC	1,714	39	36	61,909	30	33,764	1,125
ON	994	137	114	113,305	125	51,176	409
MB	1,997	63	59	117,826	71	57,424	809
SK	1,931	68	66	127,443	105	48,077	458
AB	2,394	46	42	100,533	67	41,680	622
BC	654	196	171	111,806	355	73,029	205
YK	489	18	17	8,317	6	1,172	195
NWT	689	26	24	16,542	16	5,309	332
NU	0	0	0	0	0	0	0
CAN	1,234	626	557	687,907	820	329,677	401

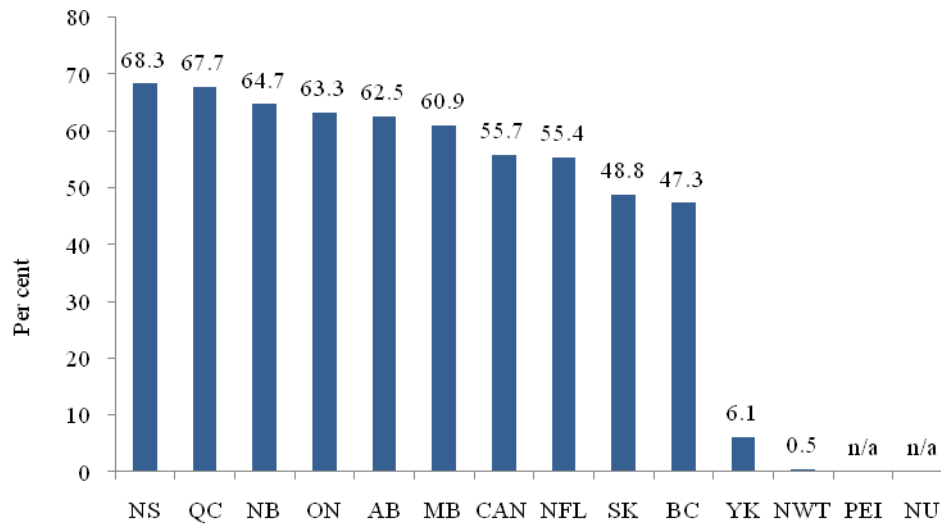
Note: A total of two bands with zero registered population counts as of June, 2009 were found, one for Ontario and another one for the Yukon Territory.

Sources: INAC Administrative Profiles, Aboriginal Canada Portal and Statistics Canada 2006 Aboriginal Population Profiles.

As of June, 2009, Nova Scotia had the largest percentage of registered band members residing on reserves (68.3 per cent), followed closely by Québec (67.7 per cent), New Brunswick (64.7 per cent), Ontario (63.3), Alberta (62.5), and Manitoba (60.9) (Chart 5). All these provinces surpass the figure for Canada as a whole, which stands at 55.7 per cent in 2009. In contrast, the Yukon and Northwest Territories record just 6.1 and 0.5 per cent, respectively, of the registered band population residing on reserves.¹³ While reserves in Saskatchewan and British Columbia were among the most populated in 2009, less than a half of their registered band population (48.8 and 47.3 per cent, respectively) resided on reserves in the same year.

¹³ These figures are based on the population data of reserves that have such data available, as found in INAC Administrative Files. Not all reserves in each province or territory are included.

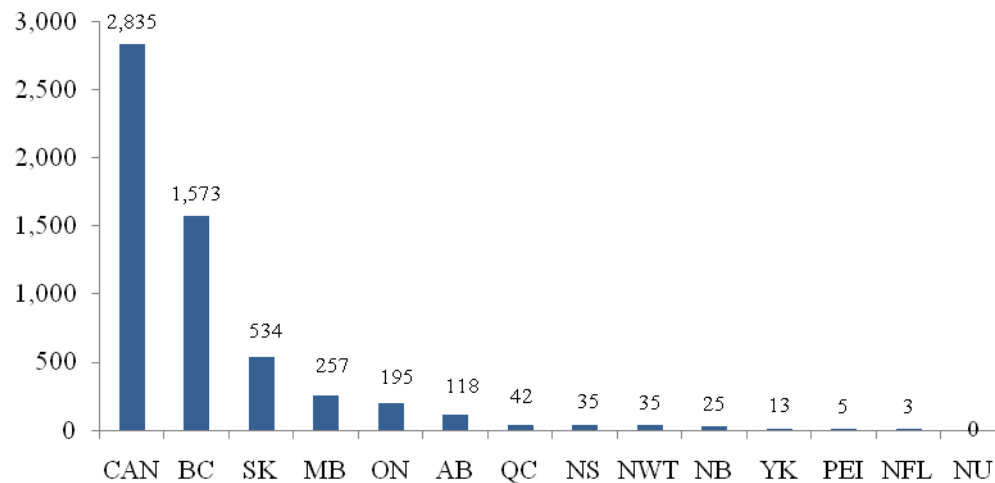
Chart 5: Percentage of the Registered Band Population Residing on Reserves, 2009



Source: Appendix Table 4

There were roughly 2,835 reserves with positive population in Canada in 2006. The majority of them (55.5 per cent) were situated in British Columbia (Chart 6). This province, however, also had the largest proportion (40.8 per cent) of reserves with total population sizes falling within the range of 1-50 individuals, and the majority of reserves in this province contained 100 or fewer residents in 2006 (Appendix 5). This province also housed the largest number of bands, the fourth largest registered band population in 2009, the fifth largest registered band population residing on reserves in 2009, and the second largest size of the on-reserve Aboriginal population (standing at 51,055 persons, and surpassed only by Manitoba at 56,765 persons) in 2006.

Chart 6: Number of Reserves, by Province/Territory and for Canada, 2006



Source: Aboriginal Canada Portal and Statistics Canada 2006 Aboriginal Population Profile.

Saskatchewan had the second largest number of reserves, as well as the third largest number of reserves with populations below 1,000 in 2006. At the same time, its on-reserve Aboriginal identity population ranked as the third largest in 2006 and its total registered band population was the largest in 2009. Its neighbor, Manitoba, had the third largest number of reserves in 2006 and the largest on-reserve Aboriginal identity population in the same year. Manitoba also takes the second and first place in terms of the sizes of its registered band population and registered band population residing on reserves, respectively, in 2009.

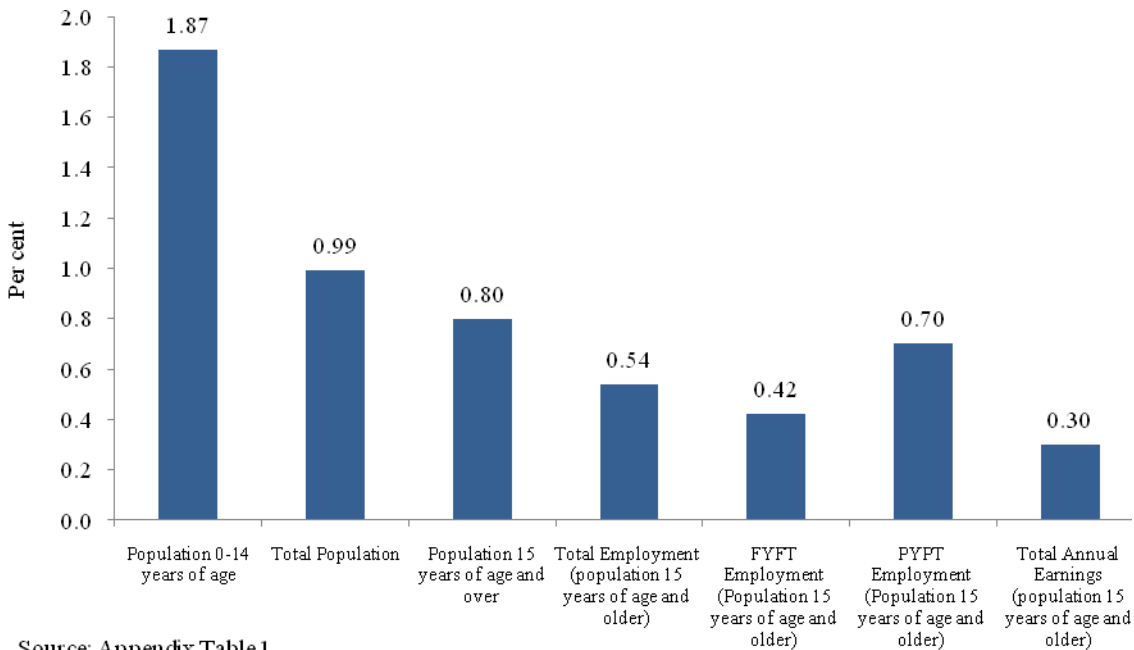
b) On-Reserve Working Age Population and Employment in Canada and the Provinces

Two important elements of total earnings, and therefore the GDP estimates developed later in this report, are the size of the working age population and the proportion of those people that are employed. The Census indicates that the FYFT employed on-reserve Aboriginal population increased as a share of the general FYFT employed population from 0.39 to 0.42 percent between 2001 and 2006 (Chart 7). Moreover, the share of working age on-reserve Aboriginal individuals that had FYFT employment increased slightly from 2001 to 2006. In contrast, there was a substantial drop in the share of the PYPT employed on-reserve Aboriginal population in total PYPT employment in Canada (from 0.84 to 0.70 per cent).¹⁴ This section will examine the Aboriginal working age population and the employment and employment rates of on-reserve Aboriginal people in greater detail.

Before examining these employment-related statistics of the on-reserve Aboriginal population relative to the general population for a given province or territory, however, it is important to note that substantial differences between absolute and relative statistics may well arise due to the geographic distribution of the working age and employed population. For example, the employment rate for the general population of Newfoundland and Labrador was the lowest among all the provinces and territories in 2005, while the employment rate for the on-reserve Aboriginal identity population was highest in this province in the same year. The main factors driving this discrepancy are (i) this province has the smallest share of its working age population residing on reserves and (ii) this province has the second smallest share of its employed population residing on reserves.

¹⁴ To put these statistics in a larger context, the unemployment rate for the on-reserve First Nations population was, in the same period, roughly 11 percentage points greater than the off-reserve unemployment rate of First Nations (TD Bank Financial Group, 2009). Moreover, the median earnings of FYFT First Nations workers (aged 25 to 54) residing on reserves stood at \$29,014 in 2005 (current dollars), well below that of First Nations residing off-reserve, at \$37,447 (TD Bank Financial Group, 2009). In addition, the unemployment rate gap between the on-reserve First Nations population and the non-Aboriginal population narrowed only slightly from 20.9 to 18.7 percentage points between 2001 and 2006 (BBMD Consulting and CSLS, 2011).

Chart 7: Population, Employment and Total Earnings of the On-Reserve Aboriginal Population as a Percentage of the General Population, Employment and Total Earnings for Canada, 2005



i. Working Age Population

The size of the working age population is an important indicator of the magnitude of the potential earnings of a given population. The Canadian working age population (defined here as the population aged 15 years and older) grew by 7.4 per cent over the course of five years, from 23,901,360 in 2001 to 25,664,220 in 2006. Over the same time period, the on-reserve Aboriginal population in the same age category grew by 12.6 per cent from 181,205 to 204,075, while the population aged 0-14 shrank by 0.4 per cent. Overall, the total on-reserve Aboriginal population grew by 7.8 per cent, from 286,080 in 2001 to 308,490 in 2006, exceeding the growth rate of the total Canadian population of 5.4 per cent.

Table 5: Percentage of the Total Population that is of Working Age for the General Population and for the On-Reserve Aboriginal Population, by Province/Territory and for Canada, 2001 and 2006

Province/ Territory	Percentage of the general population that is working age (15 years of age or older) (%)		Percentage of the total on-reserve Aboriginal population that is working age (15 years of age or older) (%)		Change in the Percentage of the general population that is working age (Percentage points) (5)=(2)-(1)	Change in the Percentage of the total on-reserve Aboriginal population that is working age (Percentage points) (6)=(4)-(3)
	2001 (1)	2006 (2)	2001 (3)	2006 (4)		
NFL	82.5	84.4	74.8	67.2	1.9	-7.6
PEI	80.0	82.1	65.3	67.5	2.1	2.2
NS	81.6	83.8	62.3	64.7	2.2	2.4
NB	81.9	83.6	65.5	68.5	1.7	3.0
QC	81.9	83.2	64.6	66.5	1.3	1.9
ON	80.2	81.6	65.6	67.6	1.4	2.0
MB	78.8	80.1	60.0	62.7	1.3	2.7
SK	78.4	80.3	58.4	62.3	1.9	3.9
AB	78.9	80.6	60.5	63.5	1.7	3.0
BC	81.7	83.3	69.7	72.9	1.6	3.2
YK	78.8	81.1	75.4	77.4	2.3	2.0
NWT	72.6	75.8	66.8	69.9	3.2	3.1
NU	62.6	66.0	n/a	n/a	3.4	n/a
CAN	80.6	82.1	63.3	66.2	1.5	2.9

Sources: Appendix Table 1.

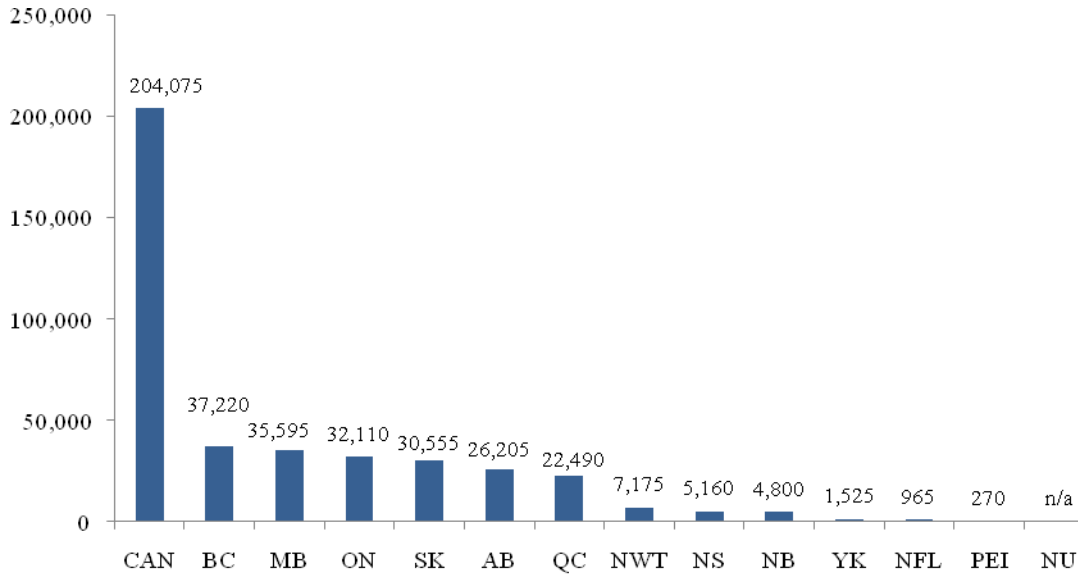
At the national level, the percentage of the total on-reserve Aboriginal population that is 15 years of age or older has increased from 63.3 per cent in 2001 to 66.2 per cent in 2006 (Table 5). Since individuals 15 years of age or older represented a significantly smaller percentage of the total on-reserve Aboriginal population than that of the general population in Canada in 2001, it is not surprising that the increase in the share of the population in this age group was higher for reserves than for Canada as a whole (2.9 percentage points for reserves compared to 1.5 percentage points for Canada) between 2001 and 2006. Of all the provinces and territories that contain Indian reserves, only Newfoundland and Labrador experienced a decline in the share of its total on-reserve Aboriginal population that is 15 years of age or older.

The ranking of provinces and territories based on their on-reserve Aboriginal working age population counts has not changed over the five year period. In 2006, the largest on-reserve working age population was documented in British Columbia (37,220), followed closely by Manitoba (35,595) (Chart 8). Newfoundland and Labrador and Prince Edward Island had the smallest Aboriginal working age population residing on reserves, with 965 and 270 individuals in 2006, respectively. However, these provinces also have small total populations.

Of all the provinces and territories, only the Northwest Territories saw a decrease (-19.1 per cent) in the Aboriginal working age population residing on reserves between 2001 and 2006. Reserves in Newfoundland and Labrador, representing the second smallest on-reserve population count, experienced the largest growth (70.8 per cent) in the on-reserve Aboriginal working age population from 2001 to 2006 (Chart 9). The next greatest growth rate for this population was

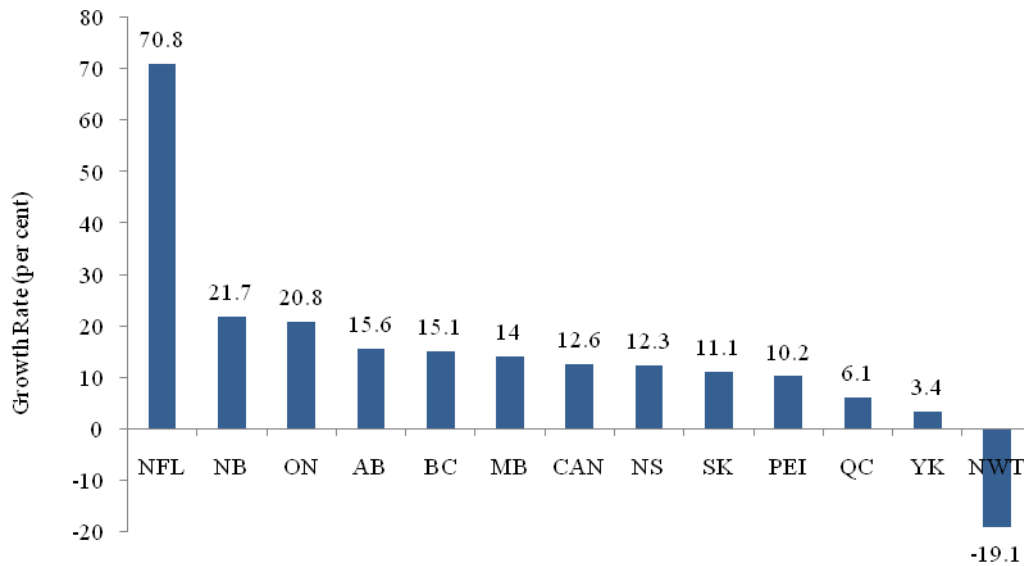
seen on reserves in New Brunswick (21.7 per cent between 2001 and 2006). In contrast, Yukon Territory and Québec saw increases of just 3.4 and 6.1 per cent in their on-reserve Aboriginal working age population, respectively. All the remaining provinces experienced increases ranging from 10 to 16 per cent in their on-reserve Aboriginal working age population (Chart 9).

Chart 8: On-Reserve Aboriginal Working Age Population, by Province/Territory and for Canada, 2006



Source: Statistics Canada 2006 Topic Based Tabulations, Cat. No. 97-564-X2006002.

Chart 9: Growth Rate of the On-Reserve Aboriginal Working Age Population, by Province/Territory and for Canada, 2001-2006



Source: Appendix Table 1.

The share of the on-reserve working age Aboriginal population in the total working age population in Canada increased from 0.76 per cent in 2000 to 0.80 per cent in 2006. At the provincial/territorial level, the Northwest Territories had, by far, the largest on-reserve Aboriginal working age population as a share of total provincial working age population in both years, standing at 23 per cent in 2006 (down from 33 per cent in 2001) (Table 6). This share has also undergone the largest change in the Northwest Territories, declining 9.88 percentage points between 2001 and 2006. The remaining provinces and territories had much smaller shares, ranging between 6.23 per cent for Yukon Territory to 0.23 per cent for Newfoundland and Labrador in 2006.

Table 6: On-Reserve Aboriginal Identity Working Age Population as a Percentage of General Population, by Province/Territory and for Canada, 2006

Province/ Territory	Percentage of the General Population in 2001 (1)	Percentage of the General Population in 2006 (2)	Change (Percentage Points) (3)=(2)-(1)
NFL	0.13	0.23	0.10
PEI	0.23	0.24	0.01
NS	0.63	0.68	0.05
NB	0.67	0.80	0.13
QC	0.36	0.36	0.00
ON	0.29	0.33	0.04
MB	3.59	3.92	0.33
SK	3.64	3.99	0.35
AB	0.98	1.00	0.02
BC	1.02	1.10	0.08
YK	6.56	6.23	-0.33
NWT	32.92	23.04	-9.88
NU	n/a	n/a	n/a
CAN	0.76	0.80	0.04

Sources: Appendix Table 1.

ii. Employment Rate

The magnitude of potential employment, indicated by the total working age population, is more informative when it is supplemented with the actual number of people employed. Dividing the number of employed individuals by the working age population yields the employment rate. In 2005, the employment rate of the on-reserve Aboriginal population in Canada was 45.4 per cent, falling significantly from 54.0 per cent in 2000. Representing 0.80 per cent of the total working age population in 2006, the employed on-reserve Aboriginal population in Canada accounted for only 0.54 per cent of total Canadian employment in 2005, down from 0.60 per cent in 2000. This sub-section takes a closer look at the developments in the employment rate for the on-reserve Aboriginal population from 2000 to 2005.

The on-reserve Aboriginal employment rate was highest in Newfoundland and Labrador, at 72.5 per cent, which is striking because this province also had the lowest employment for the

general population (61.0 per cent in 2000 and 60.9 per cent in 2005). The on-reserve employment rate in this province, although impressive, actually deteriorated from 82.3 per cent in 2000 (Table 7). A decline in the employment rate is also observed for the on-reserve Aboriginal working age population in the other provinces and territories. The largest decrease in the employment rate took place in Nova Scotia (-11.8 percentage points), followed by British Columbia (-11.4 percentage points), Ontario (-10.5 percentage points), and Manitoba (-10.4 percentage points).

Table 7: Employment Rate for the On-Reserve Aboriginal Population, by Province/ Territory and for Canada, 2000 and 2005

Province/ Territory	FYFT Employment Rate (Persons 15 years of age and older with employment income) (%)		PYPT Employment Rate (Persons 15 years of age and older with employment income) (%)		Employment Rate (Persons 15 years of age and older with employment income) (%)		Change in FYFT Employment Rate (Percentage Points)	Change in PYPT Employment Rate (Percentage Points)	Change in Employment Rate (Percentage Points)
	2000 (1)	2005 (2)	2000 (3)	2005 (4)	2000 (5)	2005 (6)			
							(7)=(2)-(1)	(8)=(4)-(3)	(9)=(6)-(5)
NFL	12.4	14.5	69.9	58.0	82.3	72.5	2.1	-11.9	-9.8
PEI	16.3	n/a	55.1	n/a	71.4	n/a	n/a	n/a	n/a
NS	17.6	17.2	38.7	27.4	56.4	44.6	-0.4	-11.3	-11.8
NB	17.5	20.1	42.3	31.0	59.8	51.1	2.6	-11.3	-8.7
QC	22.5	24.4	37.9	31.2	60.4	55.6	1.9	-6.7	-4.8
ON	24.2	24.5	35.8	24.9	60.0	49.5	0.3	-10.9	-10.5
MB	18.0	15.6	29.3	21.3	47.3	36.9	-2.4	-8.0	-10.4
SK	14.0	13.5	29.0	20.4	43.0	33.9	-0.5	-8.6	-9.1
AB	17.1	18.4	29.5	25.1	46.6	43.5	1.3	-4.4	-3.1
BC	16.7	17.3	43.2	31.1	59.8	48.4	0.6	-12.1	-11.4
YK	21.4	23.9	51.2	45.6	72.5	69.5	2.5	-5.6	-3.0
NWT	25.9	25.5	41.1	38.8	67.1	64.3	-0.4	-2.3	-2.8
NU	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CAN	18.8	18.9	35.2	26.5	54.0	45.4	0.1	-8.7	-8.6
CAN: General Population	37.1	36.1	31.7	30.3	68.8	66.4	-1.0	-1.4	-2.4

Source: Appendix Table 1.

Overall, in 2005, employment rates for the general population in Canada exceeded that of the on-reserve Aboriginal population by 21.0 percentage points, up from 14.8 percentage points in 2000 (Table 8). This is largely due to the fact that the general population in all provinces and territories enjoyed higher FYFT employment rates in 2000 and 2005 than did the on-reserve Aboriginal population. The gap in the rate of FYFT employment decreased slightly at the national level, while the gap in the rate of PYPT employment grew from 2000 to 2005.

Table 8: Employment Rate for the General Population Minus the Employment Rate for the On-Reserve Aboriginal Population (Employment Rate Gap), by Province/Territory and for Canada, 2000 and 2005

Province/ Territory	FYFT Employment Rate Gap (Persons 15 years of age and older with employment income) (%)		PYPT Employment Rate Gap (Persons 15 years of age and older with employment income) (%)		Employment Rate Gap (Persons 15 years of age and older with employment income) (%)		Change in the FYFT Employment Rate Gap (Percentage Points) (7)=(2)-(1)	Change in the PYPT Employment Rate Gap (Percentage Points) (8)=(4)-(3)	Change in the Employment Rate Gap (Percentage Points) (9)=(6)-(5)
	2000 (1)	2005 (2)	2000 (3)	2005 (4)	2000 (5)	2005 (6)			
NFL	13.1	11.9	-34.5	-23.5	-21.3	-11.6	-1.2	-11.0	-9.7
PEI	16.3	n/a	-14.2	n/a	2.1	n/a	n/a	n/a	n/a
NS	15.1	16.6	-6.9	2.3	8.1	18.9	1.5	9.2	10.8
NB	15.0	12.9	-8.2	0.5	6.9	13.4	-2.1	8.7	6.5
QC	12.4	10.1	-7.4	-1.6	5.0	8.5	-2.3	5.8	3.5
ON	15.4	13.1	-5.6	4.0	9.8	17.0	-2.3	9.6	7.2
MB	22.0	22.7	1.4	7.5	23.4	30.2	0.7	6.1	6.8
SK	23.8	24.0	3.9	10.0	27.8	34.0	0.2	6.1	6.2
AB	24.3	22.3	5.6	8.5	29.9	30.7	-2.0	2.9	0.8
BC	16.3	15.5	-8.7	1.2	7.6	16.7	-0.8	9.9	9.1
YK	17.5	16.9	-6.6	-6.6	10.8	10.3	-0.6	0.0	-0.5
NWT	17.3	19.0	-3.6	-4.2	13.7	14.8	1.7	-0.6	1.1
NU	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CAN	18.2	17.2	-3.4	3.8	14.8	21.0	-1.0	7.2	6.2

Source: Appendix Table 1

The total employment rate was lower for the on-reserve Aboriginal population than for the general population in every province or territory, with the exception of Newfoundland and Labrador, which had very high PYPT employment rates. Excluding Newfoundland and Labrador, the employment rate gap in 2005 ranged from 34.0 percentage points in Saskatchewan to 8.5 percentage points in Québec.

c) On-Reserve Aboriginal Population Total Earnings

Earnings¹⁵ reflect money earned from employment and provide a proxy for the level of economic activity in a given geographic area. This sub-section provides an overview of the total annual earnings of the employed Aboriginal people living on reserves in absolute and relative terms, based on provincial level FYFT and PYPT employment data, as a prelude to the GDP estimates presented in Section IV of this report.

In the top-down approach, the total earnings of reserves are calculated as the sum of the total FYFT earnings and total PYPT earnings of Aboriginal individuals living on reserve. In 2000, FYFT earnings accounted for 57 per cent of total earnings on reserves, and this proportion increased to 63 per cent in 2005. The comparable figure for Canada as a whole was 73 per cent

¹⁵ The 2006 Census of Population defines earnings (employment income) as including wages and salaries, net income from a non-farm unincorporated business and/or professional practice, and/or net farm self-employment income (Statistics Canada, 2008d).

in both years. This increase in the importance of FYFT earnings on-reserve is partly due to the fact that between 2000 and 2005 at the national level there was a substantial drop in PYPT employment. Indeed, the proportion of the working age population that had PYPT employment fell 8.7 percentage points from 35.2 per cent in 2000 to 26.5 per cent in 2005. In addition, the proportion of the working age population with FYFT employment increased slightly from 18.8 per cent in 2000 to 18.9 per cent in 2005.

From 2000 to 2005, the total annual earnings of the employed Aboriginal population residing on reserves grew 3.8 per cent in real terms, which is quite modest growth in comparison to the 9.9 per cent growth observed in the total annual earnings of the total employed population in Canada. Over the same five-year period, the employed Aboriginal population living on reserves in Newfoundland and Labrador experienced real growth of 58.5 per cent in their annual earnings from 2000 to 2005, the highest growth among all of the provinces (Table 9).

Table 9: Total Earnings of the On-Reserve Aboriginal Population, 2005 constant dollars, by Province/ Territory and for Canada, 2000 and 2005

Province/ Territory	Total Earnings in 2000 (thousands) (1)	Total Earnings in 2005 (thousands) (2)	Growth Rate (%) (3)
NFL	7,431	11,779	58.5
PEI	3,055	n/a	n/a
NS	40,399	45,938	13.7
NB	36,686	46,787	27.5
QC	261,247	292,841	12.1
ON	334,955	339,581	1.4
MB	262,360	252,289	-3.8
SK	197,448	200,536	1.6
AB	207,214	236,640	14.2
BC	361,903	372,185	2.8
YK	22,629	28,418	25.6
NWT	160,387	138,945	-13.4
NU	n/a	n/a	n/a
CAN	1,897,725	1,969,772	3.8

Source: Appendix Table 1.

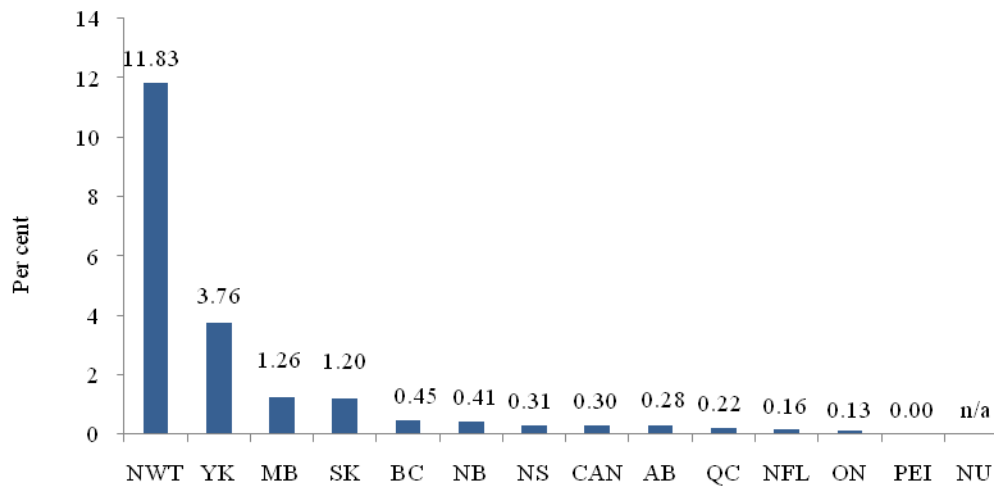
Over the same the five year period, the relatively well-remunerated employed Aboriginal population living on reserves in the Northwest Territories experienced a deterioration of 13.4 per cent in its total annual earnings. The on-reserve Aboriginal population in Manitoba also experienced a decrease, albeit smaller, of 3.8 per cent.

The on-reserve Aboriginal population of the Northwest Territories had the highest share of its province/territory's total earnings in 2005 (11.83 per cent), followed by the on-reserve Aboriginal population of the Yukon Territory (3.76 per cent), Manitoba (1.26 per cent), and Saskatchewan (1.20 per cent). The shares of total earnings accounted for by the on-reserve Aboriginal populations in the remaining provinces were all well under 1 per cent in 2005 (Chart

10). This is in part due to the fact that the Aboriginal population represents a smaller share of the total population in these other provinces.

The share of total provincial/territorial earnings accounted for by the on-reserve Aboriginal population deteriorated in many provinces/territories, but most notably in the Northwest Territories, with a decline of 5.97 percentage points. There was also a slight decline in Manitoba (0.13 percentage points), Saskatchewan (0.06), Alberta (0.04), and British Columbia (0.03). At the national level, there was a slight decline of 0.02 percentage points from 2000 to 2005 (Table 10). In the Yukon Territory, the increase in this share was 0.35 percentage points, the highest of all provinces and territories. New Brunswick (0.08), Newfoundland and Labrador (0.05), Nova Scotia (0.02) and Québec (0.01) also have undergone a small improvement in this relative indicator.

Chart 10: Total Earnings of the Aboriginal Population Relative to the Total Earnings of the General Population, by Province/Territory and for Canada, 2005



Source: Statistics Canada, 2006 Topic Based Tabulations, Cat. No. 97-564-X2006002.

Table 10: Total Earnings of the Aboriginal Population Relative to the Total Earnings of the General Population, by Province/Territory and for Canada, 2000 and 2005

Province/ Territory	Total Earnings of the Aboriginal Population Relative to the Total earnings of the General Population (%)		Change in the Share of Total Earnings (Percentage Points) (3)=(2)-(1)
	2000 (1)	2005 (2)	
NFL	0.11	0.16	0.05
PEI	0.16	n/a	n/a
NS	0.29	0.31	0.02
NB	0.33	0.41	0.08
QC	0.21	0.22	0.01
ON	0.13	0.13	0.00
MB	1.39	1.26	-0.13
SK	1.26	1.20	-0.06
AB	0.32	0.28	-0.04
BC	0.48	0.45	-0.03
YK	3.41	3.76	0.35
NWT	17.80	11.83	-5.97
NU	n/a	n/a	n/a
CAN	0.32	0.30	-0.02

Source: Appendix Table 1.

d) On-Reserve Aboriginal Population Average Earnings per Worker

This subsection examines the estimates of average earnings per worker for the on-reserve Aboriginal population and provides a brief discussion of how this indicator compares to that of the general population across the provinces and territories.

The average earnings per worker of the employed Aboriginal population residing on reserves in Canada grew by 9.7 per cent from 2000 to 2005. This is partly due to a composition effect: the number of PYPT Aboriginal workers living on reserve, which have lower average earnings than their FYFT counterparts, decreased while the number of FYFT workers increased.

Close examination of the average earnings of the employed on-reserve Aboriginal population reveals that this indicator varies substantially across the provinces and territories. Aboriginal people residing on reserves in the Northwest Territories enjoyed the highest average earnings per worker of all on-reserve Aboriginal Canadians in 2005 (\$30,107).¹⁶ The employed

¹⁶ This discussion excludes the on-reserve population of Prince Edward Island and Nunavut, as the required Census information was not available.

on-reserve Aboriginal population in the other provinces received substantially lower annual remuneration on average. Indeed, Newfoundland and Labrador, which had the lowest earnings per worker for on-reserve Aboriginals (\$16,828) in 2005, had 55.9 per cent of the comparable estimate obtained for the Northwest Territories and 79.1 per cent of the national estimate (\$21,271).

Table 11: Average Annual Earnings per Worker of the On-Reserve Aboriginal Population, 2005 constant dollars, by Province/Territory and for Canada, 2000 and 2005

Province/ Territory	FYFT Average Earnings per Worker in 2000 (1)	PYPT Average Earnings per Worker in 2000 (2)	FYFT Average Earnings per Worker in 2005 (3)	PYPT Average Earnings per Worker in 2005 (4)	Average Earnings per Worker in 2000 (5)	Average Earnings per Worker in 2005 (6)	Per cent Change in Average Earnings per Worker (7)=[(6)- (5)]/(5)*100
NFL	41,222	11,508	40,206	10,983	15,981	16,828	5.3
PEI	35,307	12,167	n/a	n/a	17,456	n/a	n/a
NS	29,279	9,372	32,740	11,988	15,598	19,973	28.0
NB	27,622	10,555	30,071	11,925	15,545	19,058	22.6
QC	32,746	13,123	35,715	13,804	20,426	23,427	14.7
ON	32,134	13,463	30,660	12,259	20,994	21,384	1.9
MB	28,658	11,077	28,583	12,288	17,769	19,193	8.0
SK	28,536	11,007	29,394	12,787	16,712	19,385	16.0
AB	30,020	13,575	29,921	14,055	19,604	20,776	6.0
BC	31,333	13,822	32,658	13,956	18,698	20,648	10.4
YK	38,217	14,027	45,221	17,140	21,148	26,809	26.8
NWT	44,269	16,046	49,507	17,360	26,956	30,107	11.7
NU	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CAN	31,644	12,828	32,293	13,403	19,394	21,271	9.7

Note: Annual Earnings per worker calculated by summing PYPT and FYFT earnings and dividing by total employment. Columns (1), (2) and (5) are 2000 annual earnings adjusted for 11.6 per cent CPI inflation between 2000 and 2005.

Source: Appendix Table 1.

After the Northwest Territories, the highest annual earnings per worker estimated for the on-reserve Aboriginal population in 2005 was found in Yukon Territory (\$26,809), Ontario (21,384), and Québec (23,427). These provinces all surpassed the national estimate of this indicator for the on-reserve Aboriginal population (\$21,271) (Table 11).

Breaking average earnings per worker into FYFT and PYPT average earnings per worker reveals that the Northwest Territories and Yukon had the first and second highest average FYFT and PYPT earnings in 2005, respectively (Table 11). It is also noteworthy that despite having the third highest FYFT average earnings in 2005, Newfoundland and Labrador had the lowest PYPT average earnings in that year.

In the five year period examined, the ratio of the average earnings of on-reserve Aboriginal workers to the average earnings of all Canadian workers increased by 1.9 percentage

points. Yet, the average annual remuneration of Aboriginal workers residing on reserves stood at a strikingly low 55.8 per cent of the general employed population's average in 2005 (Table 12).

Separating out PYPT and FYFT average earnings shows that, in 2005, on-reserve Aboriginals working FYFT earned 63 per cent of the FYFT average earnings of the general population, while the comparable figure for on-reserve Aboriginals working PYPT is 60 per cent. This decomposition reveals that although there are significant gaps with other Canadians in terms of FYFT and PYPT earnings, the fact that there are relatively more on-reserve Aboriginals receiving the lower average earnings from PYPT jobs than in the rest of the Canadian population creates the even greater gap in average earnings for all employment types (ratio of 55.8 per cent).

Substantial variation was identified in the ratio of average earnings per worker for the on-reserve Aboriginal population to that of the general population across provinces and territories. In 2005, the average earnings of the employed Aboriginal population living on reserves ranged from 69.3 per cent (Yukon Territory) to 47.2 per cent (Alberta) of the general population's average earnings. This indicates that the high average remuneration of workers in Alberta does not translate into higher earnings for the Aboriginal workers living on reserves in that province.

In addition, Aboriginal workers residing on reserves in Alberta experienced the largest deterioration in their relative average earnings per worker from 2000 to 2005 (-5.9 percentage points) (Table 12). Smaller decreases were observed in Newfoundland and Labrador, Ontario and the Northwest Territories. In contrast, the relative annual earnings per worker improved for on-reserve Aboriginals in Nova Scotia, New Brunswick and Yukon Territory.

Table 12: Ratio of Average Earnings of the Employed Aboriginal Population to the Average Earnings of the Total Employed Population, by Province/Territory and for Canada, 2000 and 2005

Province/ Territory	Relative Earnings per Worker in 2000 (%) (1)	Relative Earnings per Worker in 2005 (%) (2)	Change Percentage Points (3)=(2)-(1)
NFL	58.8	57.9	-0.9
PEI	69.5	n/a	n/a
NS	52.0	64.0	12.0
NB	55.3	64.8	9.5
QC	61.4	68.3	6.9
ON	52.8	51.7	-1.2
MB	57.7	58.5	0.8
SK	57.0	60.2	3.3
AB	53.1	47.2	-5.9
BC	52.4	55.7	3.3
YK	59.8	69.3	9.5
NWT	65.1	63.2	-1.9
NU	n/a	n/a	n/a
CAN	54.0	55.8	1.9

Sources: Appendix Table 1.

IV. Gross Domestic Product Estimates for Reserves

This section develops estimates of GDP and GDP per capita for reserves based on the estimates of total annual earnings developed in the previous section. Part (a) will outline the two methodologies used in developing these estimates. Part (b) will present GDP estimates based on the “top-down” approach, in which total earnings are calculated at the provincial level based on FYFT and PYPT employment data and the national share of earnings in GDP. Part (c) will examine GDP and GDP per capita estimates based on the “bottom-up” approach, which employs reserve-level data. Finally, Part (d) will decompose total earnings, and therefore GDP, into its three key components and part (e) will examine the sensitivity of the GDP estimates to the use of the provincial/territorial share, instead of the national share, of earnings in GDP.

a) Methodology for Estimating Gross Domestic Product for Reserves

As mentioned earlier, this report uses two approaches to estimating the GDP of reserves: the “top-down” approach and the “bottom-up” approach. The first is the focus of the report, but the second will also be examined. Although significantly different data are employed in these two approaches, they are both based on the same fundamental principle. Both assume that the share of total earnings in GDP for the general population at the national level is the same as the share of total reserve earnings in reserve GDP at the national, provincial/territorial and reserve level. The validity of this assumption will be examined later in this report.

It is important to note that this assumption means that a dollar of employment income earned by an average Aboriginal person residing on a reserve is associated with as much economic activity as a dollar earned by an average individual in Canada. Implicit in this assertion is the assumption that a unit of labour generates equal value added anywhere in Canada (e.g. on and off reserve). That is, the population residing on and off reserves is assumed to share equally in the rents and profits from production.

This estimation technique can yield overestimates of reserve GDP in some cases and underestimates in others. For example, differences in government subsidies, support to businesses, and transfer programs specific to private businesses operating on and off reserves would generate either overestimates or underestimates of GDP for reserves. In a province/territory where the Aboriginal identity population residing on reserves tends to work off-reserve, the GDP estimates for reserves in this province/territory would be overestimated, holding all else constant. At the same time, the non-Aboriginal population (approximately 10 per cent of the total reserve population) that is residing and working on reserves generates economic activity that is not included in the GDP estimates. Exclusion of this economic activity results in an underestimation of reserve GDP, holding all else constant. It is also important to note that these considerations can partially offset each other.

The general methodology used to derive GDP estimates in both approaches can be summarized as follows:

1. Total earnings for the on-reserve Aboriginal population were derived or obtained from Census data at the provincial/territorial or reserve level;

2. The share of total earnings in GDP at the national level was then calculated based on total earnings, which are estimated for the general population in the same manner as for the on-reserve Aboriginal population, and Canadian GDP in 2005;
3. Assuming that earnings represent a good proxy for economy wide value-added, total earnings associated with the Aboriginal population residing on reserves in a given geographical area (a reserve, province/territory or Canada) was divided by the share of total earnings in GDP at the national level, in order to obtain reserve GDP at the level of the reserve, province and territory, and for the country as a whole.

i. Top-Down Approach

The “top-down” approach develops total earnings estimates from provincial and territorial FYFT and PYPT employment data for on-reserve Aboriginals and the general population. These total earnings estimates are then used to estimate GDP and GDP per capita in 2000 and 2005 using the national share of total earnings in GDP for the general population, as mentioned above. The trends in the component data used in this analysis are summarized in Table 13 (as discussed in previous sections).

Table 13: Changes in On-Reserve Aboriginal Population and Working Age Aboriginal People Counts, and Changes in the Corresponding Employment Rate, Average Earnings, and Total Earnings, 2000-2005

	Change in On-Reserve Aboriginal Working Age Population (2001-2006) (1)	Percentage Change in On-Reserve Aboriginal Working Age Population (2001-2006) (%) (2)	Change in Rate of On-Reserve Aboriginal Working Age Population (2001-2006) (percentage points) (3)	Change in Average Earnings per Worker (constant 2005 dollars) (4)	Percentage Change in Average Earnings per Worker (%) (5)	Change in Real Total Earnings (constant 2005 dollars, thousands) (6)	Percentage Change in Real Total Earnings (%) (7)	Change in On-Reserve Aboriginal Population from 2001 to 2006 (8)	Percentage Change in On-Reserve Aboriginal Population from 2001 to 2006 (%) (9)
NFL	400	70.8	-9.8	846	5.3	4,348	58.5	680	90.1
PEI	25	10.2	n/a	n/a	n/a	n/a	n/a	25	6.7
NS	565	12.3	-11.8	4,375	28.0	5,539	13.7	610	8.3
NB	855	21.7	-8.7	3,513	22.6	10,100	27.5	980	16.3
QC	1,300	6.1	-4.8	3,001	14.7	31,594	12.1	1,010	3.1
ON	5,530	20.8	-10.5	390	1.9	4,626	1.4	7,020	17.3
MB	4,375	14.0	-10.4	1,424	8.0	-10,071	-3.8	4,705	9.0
SK	3,055	11.1	-9.1	2,673	16.0	3,088	1.6	1,945	4.1
AB	3,540	15.6	-3.1	1,172	6.0	29,426	14.2	3,785	10.1
BC	4,870	15.1	-11.4	1,950	10.4	10,281	2.8	4,675	10.1
YK	50	3.4	-3.0	5,661	26.8	5,789	25.6	15	0.8
NWT	-1,695	-19.1	-2.8	3,152	11.7	-21,442	-13.4	-3,025	-22.8
NU	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CAN	22,870	12.6	-8.6	1,876	9.7	72,047	3.8	22,410	7.8

Sources: Appendix Table 1.

Note: Annual Total CPI Inflation was used to obtain Average and Total Earnings in 2005 constant dollars, Statistics Canada, CANSIM, Consumer Price Index Series, v41693271 Canada; All-items .

iv. Bottom-Up Approach

This approach employs reserve-level data retrieved from the Aboriginal Canada Portal. Reserves with zero population in 2000 and 2005 were excluded from the final, exhaustive list of reserves with data available. Using this list, each reserve was linked to a band. Data on registered band population, registered band population residing on reserves, and overall community-reported band population were retrieved from INAC administrative files available on the Aboriginal Canada Portal. Reserve-level data on a host of other variables were obtained from the Census Aboriginal Population Profiles.

iii. Comparing the Approaches

As mentioned earlier, the top-down approach only provides estimates at the provincial/territorial and national level. The bottom-up approach uses reserve-level data, and thus provides GDP estimates at the reserve level. These reserve-specific GDP estimates for 2005 are then aggregated by province and territory to achieve provincial/territorial and national estimates, which may be compared to the top-down GDP estimates for reserves. The two approaches for estimating GDP for reserves are not expected to provide perfectly aligned estimates based on the following two factors:

1. The bottom-up approach uses the provided average earnings per worker and aggregate employment statistics to derive total earnings, while the top-down approach utilizes the sum of FYFT and PYPT employment and average earnings per worker;
2. Statistics Canada's suppression of earnings data at the community level results in the exclusion of a number of (enumerated) reserves in the aggregation of reserve-specific GDP under the bottom-up approach that are included in the top-down estimates of GDP for reserves.

iv. Caveats

Before proceeding any further, a discussion of broader caveats is in order. In addition to the limitations presented by data availability and the data quality issues discussed earlier in this report, two main analytical caveats arise from this general approach for estimating GDP. These are:

1. The analysis does not control for on-reserve/off-reserve place of work as it relates to the Aboriginal population residing on reserves;
2. Estimates of GDP presented in this report are earnings-based and only account for profits, rents and other elements of the income-based approach to measuring GDP (otherwise known as Gross Domestic Income) by assuming that the share of these components in GDP is identical for all reserves in Canada and equal to the national share of these components in total GDP.

b) Estimation Results from the Top-Down Approach

i. Gross Domestic Product Estimates for Reserves at the National and Provincial/Territorial Levels

This section presents the GDP estimates developed for the on-reserve Aboriginal identity population based on the top-down approach and the national share of total earnings in GDP for the general population.¹⁷ At the national level, GDP estimates for reserves increased from \$3.9 billion in 2000 to \$4.2 billion in 2005 (constant 2005 dollars) capturing 0.3 per cent of total GDP for Canada in 2005 (Table 14). The reserve GDP growth rate from 2000 to 2005 was estimated at 7.1 per cent, while GDP for Canada increased by 13.4 per cent. Over the same five-year period, reserve GDP per capita declined by 0.7 per cent, from \$13,593 in 2000 to \$13,503 (in constant 2005 dollars).¹⁸ This can be explained in part by the 8.6 percentage point decline from 2000 to 2005 in the employment rate of the total on-reserve Aboriginal population in Canada, although the average earnings per worker in the Aboriginal population residing on reserves rose by 9.7 per cent from 2000 to 2005. These two developments taken together resulted in a real increase of 3.8 per cent in the total earnings of the on-reserve Aboriginal population from 2000 to 2005. However, the total Aboriginal population living on reserves increased at a faster rate (7.8 per cent), therefore resulting in a slight decline in GDP per capita at the national level (-0.7 per cent).

¹⁷ Table 17 in the sensitivity analysis section clearly illustrates the steps taken in deriving 2005 estimates of GDP for reserves using the top-down approach with both the national and provincial/territorial shares.

¹⁸ Due to the fact that the growth rate of annual earnings was adjusted for the CPI inflation (All items) of 11.6 per cent and the GDP growth rate was adjusted using the GDP deflator (12.4 per cent), some discrepancy exists between the growth rates of total annual earnings of the on-reserve Aboriginal population (Table 11) and the growth rates of GDP for reserves (Chart 12). Other sources of this discrepancy in the growth rates of total annual earnings and GDP (beyond 1 per cent) include the use of the national share of total annual earnings in GDP, as opposed to the provincial/territorial shares, and the fact that the GDP for Canada was not derived, unlike the total annual earnings of the Canadian population. An additional source of the discrepancy between the growth rate of annual earnings per worker of the on-reserve Aboriginal population (Table 9) and the growth rate of the GDP per capita estimate for reserves (Chart 14) is the discrepancy in the growth rates for the total on-reserve Aboriginal population and for the working-age, employed on-reserve Aboriginal population.

Table 14: GDP Estimates for Reserves, by Province/Territory and for Canada, 2000 and 2005

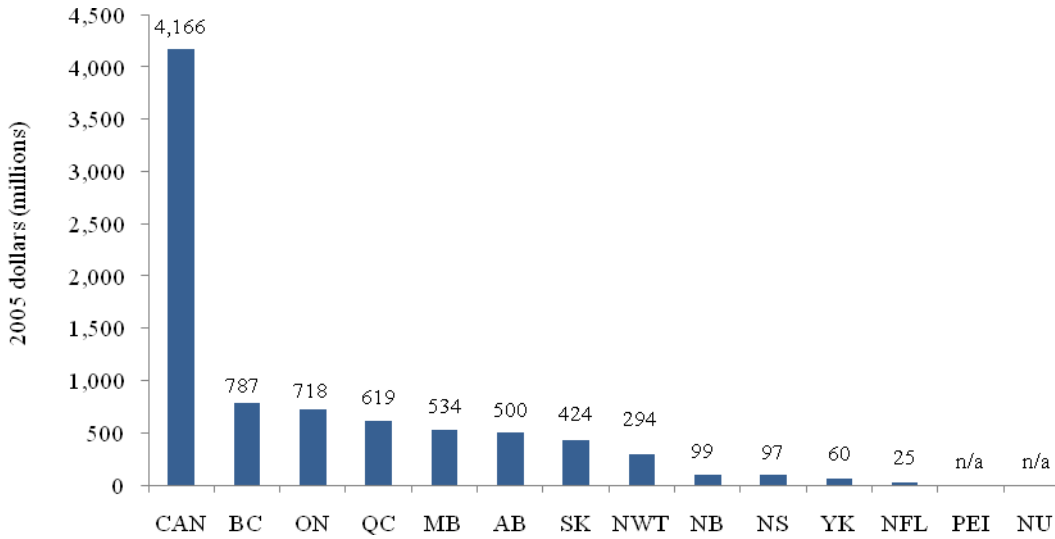
Province/ Territory	2000 (in 2005 dollars)				2005(in 2005 dollars)			
	GDP, income-based, at market prices (millions)	GDP per capita	Estimates of On-Reserve GDP (thousands)	Estimates of Reserve GDP per Capita	GDP, income-based, at market prices (millions)	GDP per capita	Estimates of On-Reserve GDP (thousands)	Estimates of Reserve GDP per Capita
NFL	15,648	30,798	15,228	20,169	21,939	43,825	24,911	17,359
PEI	3,783	28,362	6,260	16,692	4,151	30,930	n/a	n/a
NS	27,716	30,879	82,782	11,232	31,275	34,631	97,149	12,174
NB	22,576	31,368	75,175	12,477	24,748	34,389	98,944	14,125
QC	252,819	35,480	535,331	16,321	271,059	36,453	619,300	18,317
ON	495,413	43,898	686,367	16,949	536,844	44,630	718,144	15,114
MB	38,280	34,683	537,610	10,327	41,517	36,627	533,539	9,399
SK	38,023	39,478	404,597	8,596	44,066	46,198	424,093	8,652
AB	162,743	55,333	424,609	11,326	220,419	67,689	500,445	12,125
BC	147,618	38,155	741,588	15,989	169,308	41,554	787,095	15,417
YK	1,338	46,914	46,370	23,718	1,522	50,414	60,098	30,507
NWT	2,827	76,189	328,655	24,739	4,248	103,471	293,841	28,639
NU	937	35,140	n/a	n/a	1,137	38,772	n/a	n/a
CAN	1,210,073	40,827	3,888,691	13,593	1,372,626	43,937	4,165,665	13,503

Sources: CANSIM, Provincial economic accounts, income-based GDP at market prices (annual); 2001 Census Topic-based Tabulations, Cat. No. 97F0011XCB2001001; 2006 Topic-based Tabulations, Cat. No. 97-564-X2006002.

Note: Annual GDP Deflator was used to obtain GDP estimates in constant 2005 dollars, Statistics Canada CANSIM, v3840593.

In 2005, the on-reserve Aboriginal population in the provinces of British Columbia contributed the most to the national-level GDP estimate for reserves (\$787 million) (Chart 11). This province also had the largest on-reserve Aboriginal working age population (37,220 in 2006), the seventh largest associated employment rate (48.4 per cent in 2005), and the sixth largest average earnings per worker (\$20,648 in 2005, current dollars). Similarly, since Newfoundland and Labrador and Yukon Territory have by far the smallest on-reserve Aboriginal populations in the sample of provinces/territories with total earnings estimates in 2005, it is not surprising that they contributed the least to the national level estimate of reserve GDP.

Chart 11: GDP Estimates for Reserves by Province/Territory and for Canada, 2005



Between 2000 and 2005, the largest growth rate in real GDP for reserves (in constant 2005 dollars) was found in Newfoundland and Labrador (Chart 12). At 63.6 per cent, this strong growth rate was primarily driven by a 70.8 per cent increase in the on-reserve Aboriginal working age population. While the associated employment rate fell by 9.8 percentage points, the real average earnings per worker of on-reserve Aboriginals improved by 5.3 per cent from 2000 to 2005 in this province.

Chart 12: Total Growth Rate of Real GDP for Reserves, by Province/Territory and for Canada, 2000- 2005

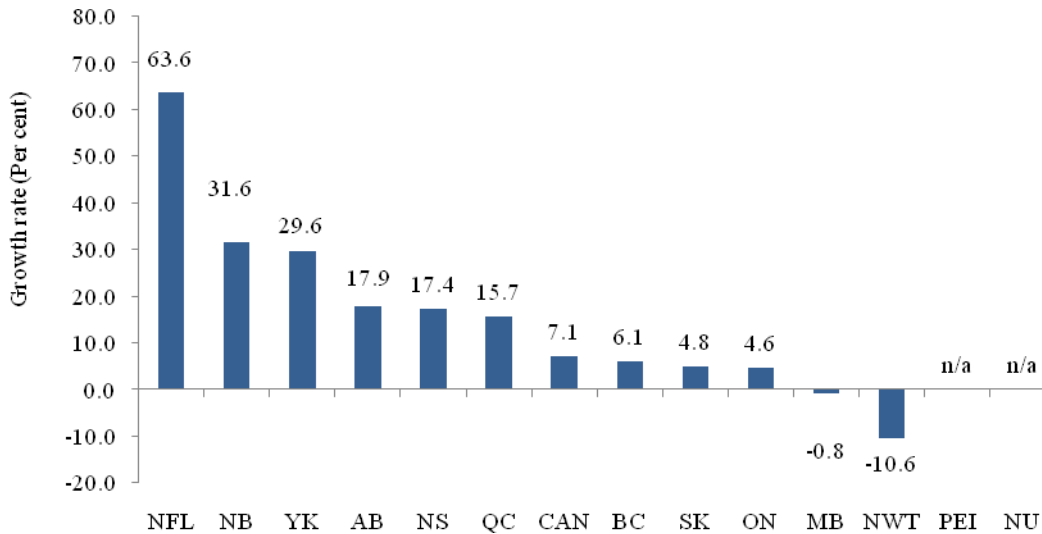
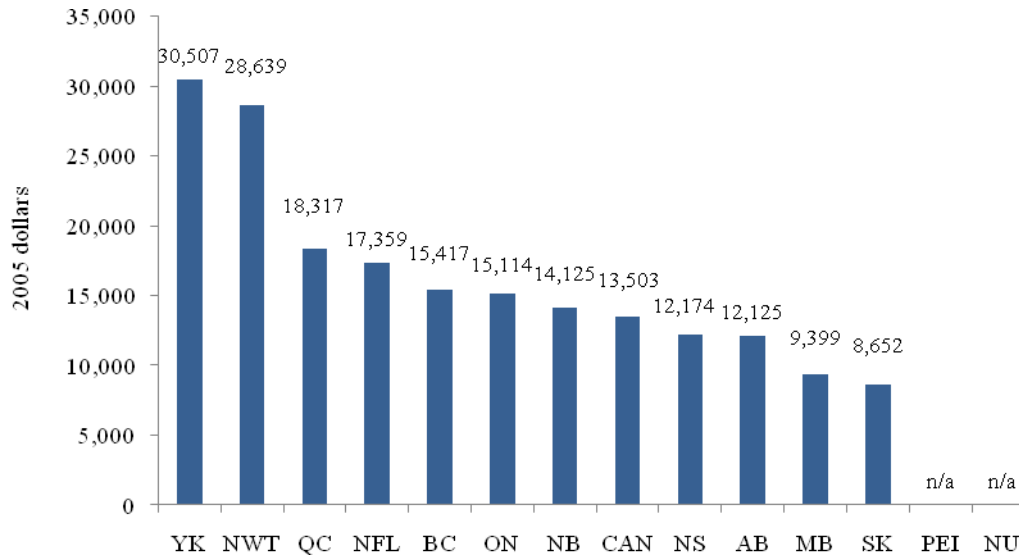


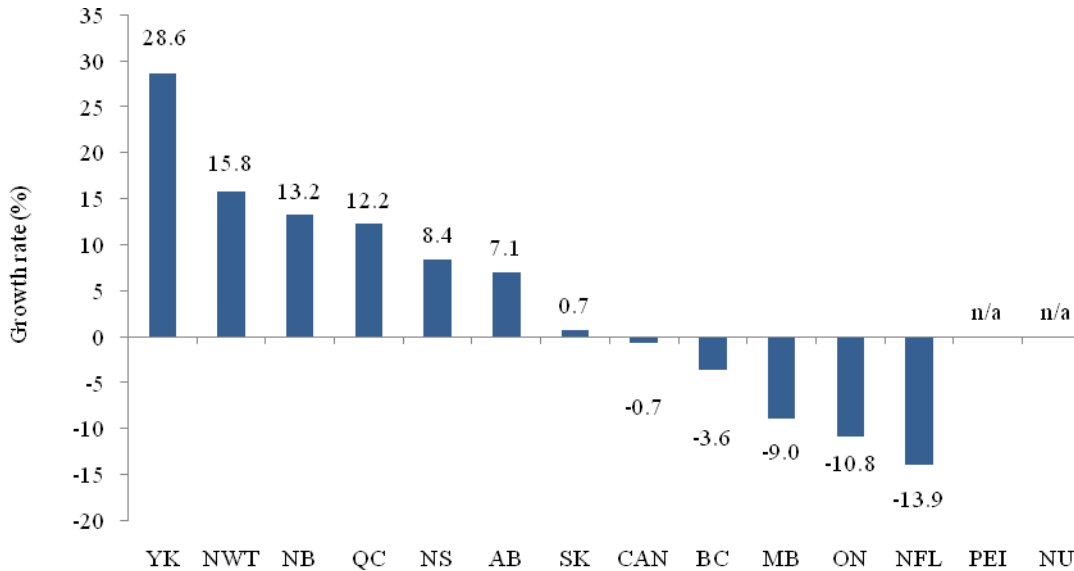
Chart 13: GDP per Capita Estimates for Reserves by Province/Territory and for Canada, 2005



The highest GDP per capita estimate for reserves in 2005 was obtained for the Yukon Territory (\$30,507 in 2005 dollars), followed by the Northwest Territories (\$28,639) (Chart 13). These estimates are 2.3 and 2.1 times greater than the national estimate (\$13,503). In contrast, Manitoba and Saskatchewan, which have the lowest reserve GDP per capita estimates, achieve just 70 and 64 per cent of the national GDP per capita estimate at \$9,399 and \$8,652, respectively. The growth rates of reserve GDP per capita also varied significantly among the provinces/territories, ranging from -13.9 per cent in Newfoundland and Labrador to 28.6 per cent in the Yukon Territory (Chart 14).

The estimated growth rate of real GDP per capita for reserves in Canada was -0.7 per cent from 2000 to 2005. The growth of the on-reserve Aboriginal population in Canada from 2000 to 2005, at 7.8 per cent, played an important role in the deterioration of the reserve GDP per capita at the national level over this five-year period. This national result was driven by negative growth rates in the GDP per capita of reserves in Newfoundland and Labrador, Ontario, Manitoba, and British Columbia.

Chart 14: Total Growth Rate of Real GDP per Capita for Reserves, by Province/Territory and for Canada, 2000-2005



The drivers of the observed growth or decline in GDP per capita vary by province. The rapid growth of the on-reserve Aboriginal working age population in many provinces, such as in Newfoundland and Labrador (70.8 per cent), New Brunswick (21.7 per cent) and Ontario (20.8 per cent), contributed to a deterioration of the employment rate of the Aboriginal on-reserve population in many of the same provinces. Indeed, the employment rate fell 9.8 percentage points in Newfoundland and Labrador, 8.7 percentage points in New Brunswick and 10.5 percentage points in Ontario. Yet, while Newfoundland and Labrador and Ontario experienced declines in real reserve GDP per capita, New Brunswick experienced growth of 8.4 per cent between 2000 and 2005, largely due to strong growth in the average earnings per worker of its on-reserve Aboriginal population (at 22.6 per cent). It is therefore clear that developments in the main determinants of the GDP per capita estimates (employment rate, population, working age population and average earnings) differ significantly by province and territory.

Thus, it is worth examining the drivers of change in reserve GDP per capita at the provincial/territorial level. This report will conduct such an examination for six of the provinces/territories, specifically Newfoundland and Labrador, Yukon Territory, Northwest Territories, British Columbia, Ontario and Manitoba. Table 13 summarizes the data that are employed in this analysis.

In Newfoundland and Labrador, the large decline in reserve GDP per capita was primarily driven by the rapid growth of the on-reserve Aboriginal population from 2001 to 2006 (growth rate of 90.1 per cent), which was not matched by rapid growth in total earnings. Reserves in the Yukon Territory, on the other hand, experienced very little growth (0.8 per cent) in the size of their population over the same five-year period and had one of the strongest growth rates in real average earnings per worker (26.8 per cent growth rate from 2000 to 2005) (Chart 14). Together, these factors led to substantial growth in reserve GDP per capita between 2001

and 2005 for this territory (28.6 per cent), which gave it the highest provincial/territorial reserve GDP per capita in Canada in 2005.

Reserves in the Northwest Territories experienced a 19.1 per cent loss in their on-reserve Aboriginal working age population and a 2.8 percentage point decline in the Aboriginal employment rate from 2000 to 2005. However, real average earnings per worker on reserves in this territory surpassed those of reserves in other provinces and territories and grew by 11.7 per cent from 2000 to 2005. These developments led to a decline of 10.6 per cent in reserve GDP, but an increase of 15.8 per cent in reserve GDP per capita.

For British Columbia, reserve GDP grew by 6.1 per cent due to a 10.4 per cent increase in average earnings per worker from 2000 to 2005. However, a large 11.4 percentage point decrease in the on-reserve Aboriginal employment rate and a 10.1 per cent increase in the on-reserve population resulted in 3.6 per cent decline in reserve GDP per capita.

Ontario also experienced negative growth in real GDP per capita for reserves from 2000 to 2005 (-10.8 per cent). In this province, the Aboriginal working age population on reserves increased by 20.8 per cent, the employment rate fell 10.5 percentage points, and average earnings per worker rose by a meager 1.9 per cent in real terms. Thus, growth in employment and average earnings of the on-reserve Aboriginal population was not able to compensate for the growth in the on-reserve Aboriginal population (17.3 per cent).

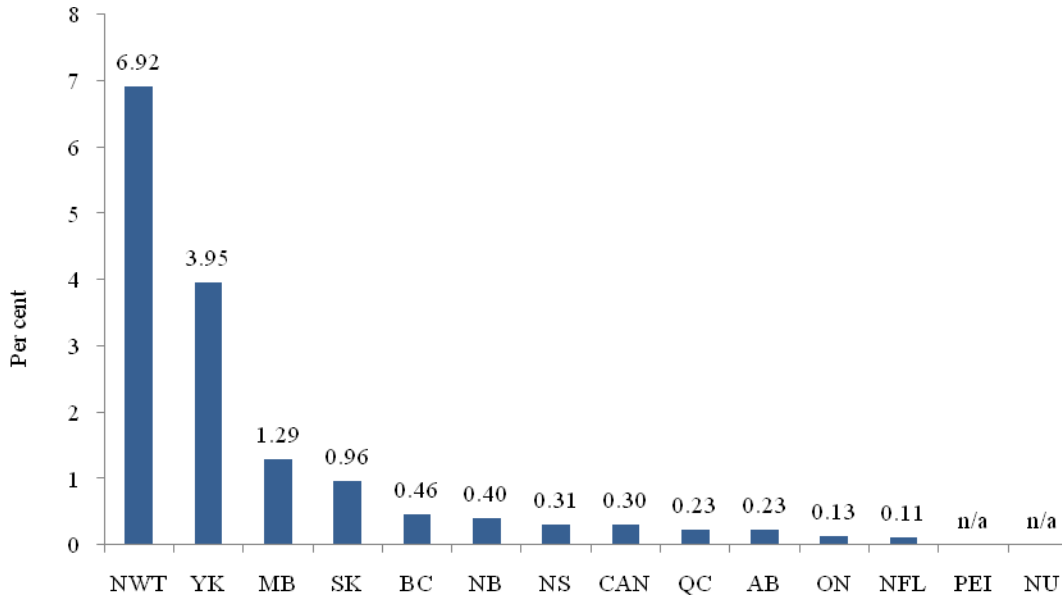
Similarly, Aboriginal people residing on reserves in Manitoba experienced a notable deterioration of 9.0 per cent in real reserve GDP per capita from 2000 to 2005. Despite an increase in working age population (14.0 per cent) and average earnings per worker (8.0 per cent), the large deterioration in the employment rate (10.4 percentage points) and the rapid growth of the on-reserve population (9.0 per cent) resulted in a decline in both reserve GDP and reserve GDP per capita estimates for this province.

ii. Results for Reserves Relative to the General Population in the Province/Territory and Canada

Total reserve GDP in Canada was estimated at 0.30 per cent of national GDP in 2005 (almost unchanged from 0.32 per cent in 2000). At the provincial level, in 2005, the on-reserve GDP for many provinces and territories was well under one per cent of provincial/territorial GDP. Reserves in Ontario and Newfoundland and Labrador had particularly low shares of provincial GDP (0.13 and 0.11 per cent, respectively) (Chart 15).¹⁹

¹⁹ A decrease in this share was estimated for Ontario, Manitoba, Saskatchewan, Alberta and British Columbia between 2000 and 2005. In addition, the Northwest Territories had by far the highest share of its GDP accounted for by the reserves, but this share decreased by 4.7 percentage points from 2000 to 2005 (from 11.6 per cent to 6.9 per cent).

Chart 15: Reserve GDP Estimate as a Percentage of Total GDP, by Province/Territory and for Canada, 2005



Reserve GDP per capita in Canada was estimated at \$13,503 in 2005, down from \$13,593 in 2000 (constant 2005 dollars). In relative terms, GDP per capita for reserves at the national level decreased from 33.3 per cent of Canada's GDP per capita in 2000 to 30.7 per cent in 2005 (Table 15). In 2005, the share of GDP per capita for reserves in many provinces and territories stood well below the national average. Specifically, GDP per capita for reserves in Manitoba, Saskatchewan, Alberta, and the Northwest Territories fell below the national estimate in 2000 and 2005. As can be expected from the methodology used in this report, the ranking of the shares of reserve GDP in provincial/territorial GDP (Chart 15) closely reflects the ranking of the shares of the on-reserve Aboriginal population's total annual earnings in the total earnings of a given province or territory (Chart 10).²⁰

²⁰ The total annual earnings indicator for the general population in a given province or territory was derived, while the GDP of each province and territory was retrieved from the provincial accounts on CANSIM. This gives rise to some discrepancy between the share of total annual earnings and the share of GDP that is accounted for by the on-reserve Aboriginal population in a given province or territory.

Table 15: GDP per Capita for Reserves as a Percentage of GDP per Capita by Province/Territory and Canada, 2000 and 2005

Province/ Territory	Ratio of Reserve to General Population GDP per Capita (%)		Change in the Ratio (Percentage Points) (3)=(2)-(1)
	2000 (1)	2005 (2)	
NFL	65.5	39.6	-25.9
PEI	58.9	n/a	n/a
NS	36.4	35.2	-1.2
NB	39.8	41.1	1.3
QC	46.0	50.2	4.2
ON	38.6	33.9	-4.7
MB	29.8	25.7	-4.1
SK	21.8	18.7	-3.0
AB	20.5	17.9	-2.6
BC	41.9	37.1	-4.8
YK	50.6	60.5	9.9
NWT	32.5	27.7	-4.8
NU	n/a	n/a	n/a
CAN	33.3	30.7	-2.6

Source: Table 14.

The deterioration in the relative GDP per capita of reserves at the national level is also seen for many provinces and territories. Losses in the shares of GDP per capita were found for reserves in Newfoundland and Labrador (25.9 percentage points), Nova Scotia (1.2 percentage points), Ontario (4.7 percentage points), British Columbia (4.8 percentage points), Northwest Territories (4.8 percentage points), Alberta (2.6 percentage points), Manitoba (4.1 percentage points), and Saskatchewan (3.0 percentage points). For some provinces, these losses occurred at the same time as they experienced positive growth in GDP per capita.

c) Estimation Results from the Bottom-Up Approach

In the bottom-up approach, reserve-specific GDP estimates were obtained and tabulated by province and territory. Due to the fact that a large number of reserves are missing employment and earnings data, GDP is estimated only for those reserves that have the required information for 2005 in their Aboriginal Population Profile.

At the national level, 63.9 per cent of the reserves for which the required information was available had their 2005 GDP per capita estimates standing at \$15,000 or less in 2005, while 84.3 per cent stood at \$20,000 or less in the same year. No reserves had a GDP per capita greater than \$40,000. Indeed, close to one third (29.4 per cent) of the 313 reserves for which the required information was available had GDP per capita estimates of \$10,000 or less.

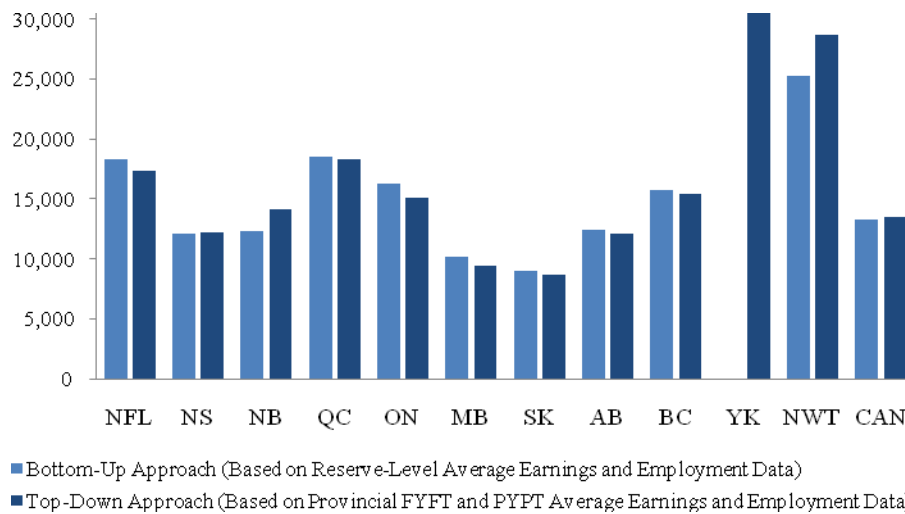
In 2005, the province of Alberta contained the only reserve with GDP per capita between \$35,001 and \$40,000. The provinces/territories with the highest percentages of reserves with GDP per capita estimates falling within the high end range of \$25,001-\$35,000 were the Northwest Territories (50.0 per cent), Quebec (11.5 per cent), Nova Scotia (11.1 per cent), British Columbia (6.8 per cent), and Ontario (5.0 per cent). The province of Saskatchewan contained the highest proportion (66.2 per cent) of reserves with per capita GDP estimated at \$10,000 or less, followed by the reserves in Manitoba (50.9 per cent).

The broadest distribution of GDP per capita estimates for individual reserves was identified in Quebec, which had reserves in all categories from \$5,001 to \$35,000. Distributions that were relatively skewed toward the lower end of the GDP per capita estimates for individual reserves were identified for the provinces of Nova Scotia and Alberta. Reserves in Newfoundland and Labrador, as well as in the Northwest Territories, exhibited the narrowest range in terms of their GDP per capita estimates, with all of their estimates falling within the ranges of \$15,001-\$25,000 and \$20,001-\$30,000, respectively.

Despite the fact that the reserve-level data from the 2006 Aboriginal Population Profiles captured only 75.5 per cent of the employed population, bottom-up and top-down GDP per capita estimates for 2005 aligned fairly well with one another. Indeed, the GDP per capita estimate for the on-reserve Aboriginal population in Canada from the available reserve-level data (bottom-up approach) is \$13,306, 99 per cent of the result from the top-down approach (\$13,503) (Appendix Table 6).²¹ In addition, the relative ranking of the provinces in terms of reserve GDP per capita is very similar to that of the top-down approach. Since there is no data for Yukon Territory from this source, the Northwest Territories had the highest GDP per capita in 2005 at \$25,226 (88 per cent of the top-down approach estimate), and Saskatchewan had the lowest at \$9,046 (105 per cent of the top-down approach estimate) (Chart 16).

²¹ There are another set of estimates that are considered part of the “bottom-up” approach which employ provincial level data. These estimates are considered part of the “bottom-up” approach because they employ average employment income and employment rate data from the Census instead of aggregating based of FYFT and PYPT average earnings and employment (Appendix Table 6, Appendix Table 11). These results also align fairly well with the top-down approach: the GDP per capita estimate for Canada is \$14,083 (104 per cent of the top-down approach result). In addition, the relative ranking of the provinces/territories is almost identical to that of the top-down approach, with Yukon Territory (\$30,149) and Northwest Territories (\$28,478) obtaining the highest GDP per capitass in 2005 (both are 99 per cent of their respective top-down approach estimates), and Saskatchewan obtaining the lowest (\$9,165 -106 per cent of its top-down approach estimate).

Chart 16: Comparing GDP per capita Estimates of the Two Approaches using the National Share of Earnings in GDP, 2005



d) Decomposition of Gross Domestic Product and Total Earnings Top-Down Approach Estimates

One key finding in the preceding analysis is that despite accounting for almost 1 per cent of the Canadian population, Aboriginals living on reserves account for just 0.30 per cent of total annual earnings and GDP in Canada. This subsection will decompose this result using a relatively simple analytical framework to better understand the challenges facing on-reserve Aboriginals. Since the top-down estimates of reserve GDP, which are the focus of this analysis, are calculated by multiplying estimates of total earnings of on-reserve Aboriginals by the national share of total earnings in GDP, the factors that determine total earnings will also have strong effects on the reserve GDP estimates.

Total earnings are determined by average earnings per worker, the employment rate, and the size of the resident working age population. Therefore, the share of total earnings, and therefore GDP, in Canada accounted for by reserves can be decomposed in the following way:

$$\frac{\text{Earnings on reserves}}{\text{Earnings in Canada}} = \frac{\text{working age population on reserves}}{\text{working age population in Canada}} \times \frac{\text{employment rate on reserves}}{\text{employment rate in Canada}} \times \frac{\text{average earnings on reserves}}{\text{average earnings in Canada}}$$

Examining the data presented earlier in this report reveals that, in 2005, the on-reserve Aboriginal working age population is just 0.80 per cent of the total Canadian working age population, while the Aboriginal identity population's employment rate and average earnings on reserves are just 68 per cent and 56 per cent, respectively, of the comparable figures for the entire Canadian population (Table 16). Thus, it is clear that although the relatively small working age population and relatively low employment rate of the on-reserve Aboriginal population contributes to low total earnings, and therefore low GDP estimates for reserves, relatively low average earnings are the most significant problem. As noted earlier, these relatively low average earnings are the result not only of lower earnings for both FYFT and PYPT workers on-reserve

than elsewhere in Canada, but also of a greater proportion of employed on-reserve Aboriginals working PYPT than in the rest of Canada.

Table 16: Ratio of Total Earnings and its Components for Aboriginal Population on Reserves to Total Earnings and its Components for the General Population of Canada, Top-Down-Approach, 2001 and 2006

Province/ Territory	Working Age Population Ratio (per cent) (1)	Employment Rate Ratio (2)	Average Earnings Ratio (3)	Total Earnings Ratio (per cent) (4)= (1)*(2)*(3)	GDP Ratio (based on national shares for reserve GDP) (5)	Total Population Ratio (6)
2006						
NFL	0.23	1.19	0.58	0.16	0.11	0.29
PEI	0.24	n/a	n/a	n/a	n/a	0.30
NS	0.68	0.70	0.64	0.31	0.31	0.88
NB	0.80	0.79	0.65	0.41	0.40	0.97
QC	0.36	0.87	0.68	0.22	0.23	0.45
ON	0.33	0.74	0.52	0.13	0.13	0.40
MB	3.92	0.55	0.59	1.26	1.29	5.01
SK	3.99	0.50	0.60	1.20	0.96	5.14
AB	1.00	0.59	0.47	0.28	0.23	1.27
BC	1.10	0.74	0.56	0.45	0.46	1.25
YK	6.23	0.87	0.69	3.76	3.95	6.53
NWT	23.04	0.81	0.63	11.83	6.92	24.99
CAN	0.80	0.68	0.56	0.30	0.30	0.99
2001						
NFL	0.13	1.35	0.59	0.11	0.10	0.15
PEI	0.23	0.97	0.69	0.16	0.17	0.28
NS	0.63	0.87	0.52	0.29	0.30	0.82
NB	0.67	0.90	0.55	0.33	0.33	0.84
QC	0.36	0.92	0.61	0.21	0.21	0.46
ON	0.29	0.86	0.53	0.13	0.14	0.36
MB	3.59	0.67	0.58	1.39	1.40	4.72
SK	3.64	0.61	0.57	1.26	1.06	4.89
AB	0.98	0.61	0.53	0.32	0.26	1.27
BC	1.02	0.89	0.52	0.48	0.50	1.20
YK	6.56	0.87	0.60	3.41	3.47	6.85
NWT	32.92	0.83	0.65	17.80	11.63	35.80
CAN	0.76	0.78	0.54	0.32	0.32	0.97

Source: Appendix Table 7. Note: Nunavut is not included because there are no Indian reserves in that territory.

The story in 2001 is similar to that in 2005. However, the share of the on-reserve Aboriginal working age population in the Canadian working age population and the ratio

between on-reserve Aboriginals average earnings per worker and the average earnings per worker of the general Canadian population improved between 2001 and 2005. It is therefore the deterioration in the Aboriginal on-reserve employment rate (in both absolute and relative terms) that drove the 0.02 per cent decrease in the proportion of Canadian GDP that on-reserve Aboriginals represent (from 0.32 in 2001 to 0.30 in 2005).

Table 16 also shows that the shares of reserve GDP in total GDP are different from the comparable shares for total earnings in some provinces. This is due to the fact that the national share of earnings in GDP is used to calculate reserve GDP. If the provincial/territorial shares were used to estimate GDP, columns (4) and (5) would be identical. The provinces with significantly different shares are those in which the provincial/territorial share of earnings in GDP differs significantly from the national average. This does not necessarily make using the national share of earnings in GDP a poor assumption for estimating the GDP of reserves, however, because the structure of the economy on reserves may be closer to the national average than the provincial/territorial average. The next section will explore the effect of using provincial/territorial instead of national shares in estimating GDP on reserves.

e) Sensitivity Analysis

In order to examine whether the use of the national share of earnings in GDP is reasonable for estimating reserve GDP at the provincial/territorial level, this subsection will examine the sensitivity of reserve GDP estimates to the use of provincial/territorial shares of total earnings in GDP. This analysis will primarily examine the results from the top-down approach, but the bottom-up approach results will also be considered. Table 17 presents the national and provincial/territorial estimates of GDP from the top-down-approach using both national and provincial/territorial shares of total earnings in GDP for the general population. Table 18 presents the shares of earnings in GDP for the bottom-up and top-down approach.

Table 17: Total Annual Earnings of the On-Reserve Aboriginal Population, and Provincial/Territorial Share-Based GDP, 2005 dollars, by Province/Territory and Canada, 2005

Province/ Territory	Total Earnings of the General population (millions) (1)	GDP, income- based, at market prices, annual (millions) (2)	Share of Total Earnings in GDP (3) =(1)/(2)	Total Earnings of the On- Reserve Aboriginal Population (thousands) (4)	On-Reserve GDP based on provincial/ territorial shares (thousands) (5)=(4)/(3)	On- Reserve GDP per Capita based on provincial/ territorial shares (7)	On-Reserve GDP based on national share (thousands) (6)= (5)*(1/0.473)	On - Reserve GDP per capita based on national share (10)
NFL	7,475	21,939	0.341	11,779	34,574	24,093	24,911	17,359
PEI	2,034	4,151	0.490	n/a	n/a	n/a	n/a	n/a
NS	14,979	31,275	0.479	45,938	95,914	12,019	97,149	12,174
NB	11,423	24,748	0.462	46,787	101,364	14,470	98,944	14,125
QC	136,016	271,059	0.502	292,841	583,586	17,261	619,300	18,317
ON	270,300	536,844	0.503	339,581	674,442	14,194	718,144	15,114
MB	19,988	41,517	0.481	252,289	524,037	9,232	533,539	9,399
SK	16,718	44,066	0.379	200,536	528,587	10,784	424,093	8,652
AB	85,791	220,419	0.389	236,640	607,990	14,730	500,445	12,125
BC	81,897	169,308	0.484	372,185	769,429	15,071	787,095	15,417
YK	756	1,522	0.497	28,418	57,233	29,052	60,098	30,507
NWT	1,174	4,248	0.276	138,945	502,712	48,997	293,841	28,639
NU	507	1,137	0.446	n/a	n/a	n/a	n/a	n/a
CAN	649,059	1,372,626	0.473	1,969,772	4,165,665	13,503	4,165,665	13,503

Note: Total earnings calculated using the "top-down approach" using FYFT and PYPT employment statistics for persons aged 15 and older at the provincial/territorial level.

Source: 2006 Census topic-based tabulations; CANSIM, Provincial economic accounts, income-based GDP at market prices (annual).

Inflation Rate: CANSIM, Consumer Price Index Series, v41693271 Canada; All-items (2002=100).

For the purposes of the sensitivity analysis, the following two comparisons can be made based on the 2005 shares of earnings in GDP presented in Table 18:

1. 2005 provincial/territorial shares of earnings in GDP based on the bottom-up approach can be compared to 2005 provincial/territorial shares based on the top-down approach, and
2. 2005 provincial/territorial shares can be compared to the 2005 national share, with both estimates based on the top-down approach.

Table 18 indicates that, despite the differences between the top-down and bottom-up approaches, their provincial/territorial shares of earnings in GDP are quite similar. Indeed, there was at most a 1 percentage point difference between the shares of earnings in GDP between the two approaches in any given province.

Table 18: Shares of Total Earnings of the General Population in Gross Domestic Product, by Province/Territory and for Canada and the Underlying Discrepancies

Province/ Territory	Total Earnings (Top-Down Approach) as a Percentage of GDP (general population) in 2000 (%) (1)	Total Earnings (Top-Down Approach) as a Percentage of GDP (general population) in 2005 (%) (2)	Total Earnings (Bottom-Up Approach) as a Percentage of GDP (general population) in 2005 (%) (3)	Discrepancy in 2005 Shares Based on Top- Down Approach Versus 2005 Shares Based on Bottom-Up Approach (Percentage Points) (4)=(3)-(2)	Discrepancy between the National and Provincial/ Territorial Shares of Total Earnings (Top-Down Approach) in GDP in 2000 (Percentage Points) (5)	Discrepancy between the National and Provincial/Territorial shares of Total Earnings in GDP (Top-Down Approach) in 2005 (Percentage Points) (6)
NFL	44.4	34.1	34.6	0.5	-4.4	-13.2
PEI	52.1	49.0	49.7	0.7	3.3	1.7
NS	51.1	47.9	48.7	0.8	2.3	0.6
NB	49.0	46.2	46.9	0.7	0.2	-1.1
QC	50.2	50.2	50.9	0.7	1.4	2.9
ON	50.7	50.3	51.3	1.0	1.9	3.0
MB	49.5	48.1	49.1	1.0	0.7	0.8
SK	41.2	37.9	38.7	0.8	-7.6	-9.4
AB	40.3	38.9	39.6	0.7	-8.5	-8.4
BC	51.5	48.4	49.4	1.0	2.7	1.1
YK	49.5	49.7	50.2	0.5	0.7	2.4
NWT	31.9	27.6	27.8	0.2	-16.9	-19.7
NU	41.6	44.6	45.0	0.4	-7.2	-2.7
CAN	48.8	47.3	48.1	0.8	n/a	n/a

Source: Appendix Table 1 and Appendix Table 10.

In terms of the difference between national and provincial shares of earnings in GDP, the range of provincial/territorial shares is wide enough under both approaches that substantial variation from the national average is observed (Table 18). Looking at the top-down approach in 2005, shares of total earnings in GDP for provinces and territories ranged from 27.6 per cent in the Northwest Territories to 50.3 per cent in Ontario. The median share was 47.9 per cent (in Nova Scotia). At the national level, total earnings accounted for 47.3 per cent of GDP for Canada in 2005, which differs only by 0.6 percentage points from the median provincial/territorial share in the same year.

This sensitivity analysis indicates that using the provincial/territorial shares instead of the national share produces substantially different estimates of GDP for reserves in the Northwest Territories. In fact, the top-down reserve GDP estimate for the Northwest Territories in 2005 would have been 71 per cent higher, in constant 2005 dollars, if the provincial share was used (Table 19). The reserve GDP estimate for Newfoundland and Labrador is also very sensitive to the choice of the national as opposed to the provincial share, with its provincial share-based reserve GDP per capita standing at 139 per cent of its national share-based estimate. The same pattern is noted in the bottom-up approach GDP estimates, with provincial share based GDP per

capita 39 per cent higher than the national share based GDP per capita in Newfoundland and Labrador and 73 per cent higher in the Northwest Territories (Appendix Table 11).²²

Table 19: National Share-Based GDP versus Provincial/Territorial Share-Based GDP Estimates for Reserves, 2005

Province/Territory	Discrepancy in reserve GDP per Capita for 2005 due to the difference in the shares used (2005 dollars)	Province/Territory -specific shares for 2005 as a Percentage of the National Share-based estimate for 2005 (%)
NFL	6,734	139
PEI	n/a	n/a
NS	-155	99
NB	345	102
QC	-1,056	94
ON	-920	94
MB	-167	98
SK	2,132	125
AB	2,606	121
BC	-346	98
YK	-1,455	95
NWT	20,358	171
NU	n/a	n/a
CAN	n/a	n/a

Given that there are substantial differences for some provinces and territories when the provincial/territorial shares of earnings in GDP are used in place of the national share, it is important to examine the validity of the assumption that the national share of earnings in GDP is the best approximation of the share of on-reserve earnings in on-reserve GDP. From an analytical perspective, the use of provincial/territorial shares of earnings in GDP has its advantages and disadvantages. The main rationale for the use of provincial shares rests with the fact that different industries predominate and drive the economic activity in each province and territory. For example, the oil and gas industry is the main driver of economic activity in Alberta, but this is not true in Nova Scotia.

In order for the assumption that the rents in production are shared equally by the on-reserve and off-reserve populations to be valid at either the national or provincial/territorial level, the variation in key industries in the general economy needs to be reconciled with the often different range of industries driving economic activity on Indian reserves.²³ In the absence of controls for on-reserve/off-reserve main place of work, at first glance it would appear that using the provincial shares would therefore better reflect the industrial composition, and the

²² The provincial-level data bottom-up approach results are almost identical to the reserve-level data bottom-up approach results in terms of the discrepancy between national share-based and provincial share-based GDP per capita estimates.

²³ This consideration clearly requires controls for on-reserve/off-reserve main place of work. However, for the purposes of this brief discussion, it is assumed that the Aboriginal paid and self-employed workers residing on reserves also work on-reserve.

distribution of rents, than the national shares. However, the unique economic situation of reserves, in terms of not only legislative and policy frameworks but also geographical location and access to resources, means that the average reserve in a given province or territory could have a significantly different industrial structure than that observed for the province as a whole, particularly if the province or territory's economy is strongly tied to one industry, such as oil and gas in Alberta. In this case, the more general average of the national share of earnings in GDP may be a better approximation of the average reserve's share of earnings in GDP.

In order to empirically examine whether the provincial/territorial or national shares are better suited to the analysis at hand, the human capital of Aboriginals on reserves is considered. It is well known that human capital plays a fundamental role in sustaining economic growth and, more broadly, in long-term economic development. It follows that any GDP per capita estimates that are based on labour market earnings will likely reflect indicators of human capital associated with the population residing in the geographical area of interest. If there is a stronger correlation between national share-based reserve GDP per capita and human capital indicators on reserve than between provincial/territorial share-based reserve GDP per capita and these same indicators, it is likely that the national share of earnings in GDP is a better approximation for estimating the GDP of the reserve population than are the provincial/territorial shares.

Therefore, to explore this relationship, correlation coefficients between the top-down estimates of reserve GDP per capita and the educational attainment for the on-reserve Aboriginal identity population by province and territory were calculated. This empirical exercise indicates that the GDP estimates for reserves based on the national shares of earnings in GDP are more strongly (and positively) correlated with this proxy for the human capital of the on-reserve Aboriginal population than are the estimates based on provincial/territorial shares (Table 20). Thus, although the assumption that the share of earnings in GDP is identical across all reserves in Canada and equal to the national share of earnings in GDP for the general population is certainly crude, it is a valid approximation.

Table 20: Correlation Coefficients Estimated for Reserve GDP per Capita and Percentage of On-Reserve Aboriginal Population that Obtained a Certificate, Diploma or Degree

Year	Correlation Coefficient between Reserve GDP per Capita based on Provincial/Territorial Shares and Percentage of On-Reserve Aboriginal Population that Obtained a Certificate, Diploma or Degree	Correlation Coefficient between Reserve GDP per Capita based on the National Share and Percentage of On-Reserve Aboriginal Population that Obtained a Certificate, Diploma or Degree
2000	0.12	0.36
2005	-0.04	0.17

Note: Correlation coefficients for 2000 exclude estimates for Nunavut.
Correlation coefficients for 2005 exclude estimates for Nunavut and Prince Edward Island.

V. Conclusion

The main goal of this report was to develop GDP estimates for reserves at the national, provincial/territorial and reserve levels, based on employment and earnings statistics for the Aboriginal population residing on reserves in Canada. Availability of indicators at the reserve level and challenges associated with using community level data were also examined.

Based on the analysis in the report, on-reserve Aboriginal GDP increased from \$3.9 billion (constant 2005 dollars) in 2000 to \$4.2 billion in 2005. The real reserve GDP growth rate for the five year period was estimated to be 7.1 per cent, while GDP for Canada grew by 13.4 per cent from 2000 to 2005.

Reserve GDP per capita in Canada was estimated at \$13,503 in 2005, down from \$13,593 in 2000 (constant 2005 dollars). Estimates of GDP per capita for reserves in Manitoba and Saskatchewan were well below the national level, while the Yukon and Northwest Territories were well above. Reserve GDP per capita at the national level decreased from 33.3 per cent of Canada's GDP per capita in 2000 to 30.7 per cent in 2005. Reserve GDP per capita for the provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Nova Scotia, New Brunswick and Newfoundland and Labrador were all less than 50 per cent of the overall GDP per capita for these provinces in 2005.

This report also finds that the estimated growth rate of GDP per capita for reserves in Canada was -0.7 per cent from 2000 to 2005. Negative growth rates in GDP per capita were found for reserves in Newfoundland and Labrador, Ontario, Manitoba, and British Columbia. The primary factor underlying these developments was a decline in the employment rate of the on-reserve Aboriginal identity population in these provinces.

The most important finding, however, is that despite accounting for 0.99 per cent of the general population at the national level in 2006, the on-reserve Aboriginal population accounted for just 0.30 per cent of national GDP in 2005. This underrepresentation of on-reserve Aboriginals in the economic activity of Canada paints a very bleak picture of the state of economic development prevailing in reserves across Canada.

This is particularly worrying because the Aboriginal population is young and growing quickly, accounting for 14.3 per cent of total population growth in Canada from 1996 to 2006. In order to improve the living conditions of Aboriginals and foster the participation of this young Aboriginal workforce in the Canadian economy, it is important to have sustained economic development on Indian reserves and settlements. However, persistent barriers to economic progress on Indian reserves and poor labour market outcomes of the on-reserve Aboriginal population have been well documented. It is therefore crucial to continue to measure and monitor key indicators of economic development, such as GDP, in order to understand the challenges faced by the Aboriginal population residing in these areas and to monitor their progress.

There are a number of areas for further research based on the numerous limitations of community-level data and the caveats associated with the estimates of reserve GDP developed in this report. These areas include:

(i) developing indicators of job mobility, and incorporating controls for this indicator into a measure of economic activity for Indian reserves and Settlements;

(ii) incorporating controls for human capital into a measure of economic activity associated with Indian reserves;

(iii) estimating factor-intensity associated with the main industries of employment of the on-reserve Aboriginal population within each province and territory (incorporating capital, energy, and materials);

(iv) eliminating the one year gap between earnings statistics and population statistics in estimating total earnings per capita associated with on-reserve Aboriginal population and on-reserve GDP per capita;

(v) incorporating the participation rate, human capital (including education, experience in the main industry of work or the field of specialization, knowledge of computers) and health of the on-reserve Aboriginal identity population into the analysis of total earnings and its decomposition;

(vi) incorporating controls for self-employment and industry of work into the analysis of total earnings and its decomposition;

(vii) supplementing the analysis of labour market outcomes of the on-reserve Aboriginal population with a quantitative analysis of gender-specific data.

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Appendix: Additional Tables

Appendix Table 1: Population, Total Employment and Earnings (Top-Down Approach Data), by Province/Territory and for Canada

Appendix Table 1A: Population in 2001, Total Employment and Earnings in 2000, by Province/Territory and for Canada								
	Province/ Territory	Population in 2001 (1)	Population 15 years of age and older in 2001 (2)	Population 0-14 years of age in 2001 (3)=(1)-(3)	FYFT Employment in 2000 (Persons 15 years of age and older) (4)	PYPT Employment in 2000 (Persons 15 years of age and older) (5)	Total Employment in 2000 (All persons 15 years of age and older with employment income in 2000) (6)=(4)+(5)	Total 2000 Earnings (All employment types, Population 15 years of age and older with employment income, thousands, current dollars) (7)
Aboriginal Identity Population on Reserves	NFL	755	565	190	70	395	465	6,659
	PEI	375	245	130	40	135	175	2,737
	NS	7,370	4,595	2,775	810	1,780	2,590	36,200
	NB	6,025	3,945	2,080	690	1,670	2,360	32,873
	QC	32,800	21,190	11,610	4,760	8,030	12,790	234,093
	ON	40,495	26,580	13,915	6,435	9,520	15,955	300,139
	MB	52,060	31,220	20,840	5,620	9,145	14,765	235,089
	SK	47,070	27,500	19,570	3,845	7,970	11,815	176,925
	AB	37,490	22,665	14,825	3,875	6,695	10,570	185,676
	BC	46,380	32,350	14,030	5,390	13,965	19,355	324,286
	YK	1,955	1,475	480	315	755	1,070	20,277
	NWT	13,285	8,870	4,415	2,300	3,650	5,950	143,716
	NU	n/a	n/a	n/a	n/a	0	0	n/a
CAN	286,080	181,205	104,875	34,145	63,705	97,850	1,700,471	
General Population	NFL	508,080	419,015	89,065	106,905	148,540	255,445	6,222,344
	PEI	133,385	106,690	26,695	34,775	43,650	78,425	1,765,882
	NS	897,565	732,365	165,200	239,525	232,850	472,375	12,696,765
	NB	719,715	589,370	130,345	191,690	201,305	392,995	9,902,400
	QC	7,125,580	5,832,345	1,293,235	2,035,000	1,778,085	3,813,085	113,693,339
	ON	11,285,550	9,048,040	2,237,510	3,585,735	2,733,690	6,319,425	225,049,114
	MB	1,103,700	869,315	234,385	347,930	266,900	614,830	16,972,387
	SK	963,155	755,525	207,630	285,690	248,770	534,460	14,042,513
	AB	2,941,150	2,322,020	619,130	960,755	815,470	1,776,225	58,795,589
	BC	3,868,875	3,160,565	708,310	1,042,410	1,089,755	2,132,165	68,127,187
	YK	28,520	22,485	6,035	8,730	10,015	18,745	593,938
	NWT	37,105	26,945	10,160	11,640	10,115	21,755	807,542
	NU	26,665	16,680	9,985	5,105	6,910	12,015	349,579
CAN	29,639,035	23,901,360	5,737,675	8,855,900	7,586,050	16,441,950	529,148,021	

Source: 2001 Census topic-based tabulations.
Columns 1-3: Aboriginal Identity (8), Age Groups (11B), Sex (3) and Area of Residence (7) for Population, for Canada, Provinces and Territories, 2001 Census - 20% Sample Data - Cat. No. 97F0011XCB2001001.
Columns 4-7: Selected Labour Force Characteristics (50), Aboriginal Identity (8), Age Groups (5A), Sex (3) and Area of Residence (7) for Population 15 Years and Over, for Canada, Provinces and Territories, 2001 Census - 20% Sample Data, 97F0011XCB2001044.

Appendix Table 1B: Population in 2006, Total Employment and Earnings in 2005, by Province/Territory and for Canada

	Province/ Territory	Population in 2006 (1)	Population 15 years of age and older in 2006 (2)	Population 0-14 years of age in 2006 (3)=(1)-(2)	FYFT Employment in 2005 (Population 15 years of age and older) (4)	PYPT Employment in 2005 (Population 15 years of age and older) (5)	Total Employment in 2005 (All persons 15 years of age and older with employment income in 2005) (6)=(4)+(5)	Total 2005 Earnings (Sum of PYPT and FYFT Earnings) (Population 15 years of age and older with employment income, thousands) (2005 dollars) (7)
Aboriginal Identity Population on Reserves	NFL	1,435	965	470	140	560	700	11,779
	PEI	400	270	130	n/a	n/a	n/a	n/a
	NS	7,980	5,160	2,820	885	1,415	2,300	45,938
	NB	7,005	4,800	2,205	965	1,490	2,455	46,787
	QC	33,810	22,490	11,320	5,490	7,010	12,500	292,841
	ON	47,515	32,110	15,405	7,875	8,005	15,880	339,581
	MB	56,765	35,595	21,170	5,570	7,575	13,145	252,289
	SK	49,015	30,555	18,460	4,110	6,235	10,345	200,536
	AB	41,275	26,205	15,070	4,825	6,565	11,390	236,640
	BC	51,055	37,220	13,835	6,450	11,575	18,025	372,185
	YK	1,970	1,525	445	365	695	1,060	28,418
	NWT	10,260	7,175	3,085	1,830	2,785	4,615	138,945
	NU	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	CAN	308,490	204,075	104,415	38,570	54,035	92,605	1,969,772
General Population	NFL	500,610	422,385	78,225	111,585	145,655	257,240	7,474,568
	PEI	134,205	110,205	24,000	36,135	41,285	77,420	2,033,852
	NS	903,090	756,595	146,495	255,050	224,900	479,950	14,979,147
	NB	719,650	601,425	118,225	198,770	189,455	388,225	11,423,022
	QC	7,435,905	6,184,490	1,251,415	2,136,700	1,828,120	3,964,820	136,016,401
	ON	12,028,900	9,819,420	2,209,480	3,690,670	2,839,180	6,529,850	270,300,236
	MB	1,133,515	908,450	225,065	348,340	261,065	609,405	19,987,679
	SK	953,850	766,235	187,615	286,895	232,710	519,605	16,717,843
	AB	3,256,355	2,625,145	631,210	1,067,895	879,640	1,947,535	85,790,803
	BC	4,074,385	3,394,910	679,475	1,113,370	1,097,260	2,210,630	81,896,913
	YK	30,190	24,490	5,700	9,995	9,545	19,540	755,725
	NWT	41,055	31,135	9,920	13,845	10,790	24,635	1,174,111
	NU	29,325	19,340	9,985	6,520	6,470	12,990	507,091
	CAN	31,241,030	25,664,220	5,576,810	9,275,765	7,766,075	17,041,840	649,058,507

Source: 2006 Census topic-based tabulations

Columns 1-3: Aboriginal Identity (8), Area of Residence (6), Age Groups (12) and Sex (3) for the Population, Cat. No. 97-558-X2006006.

Columns 4-7: Aboriginal Identity (8), Age Groups (8), Area of Residence (6), Sex (3) and Selected Demographic, Cultural, Labour Force, Educational and Income Characteristics (233), for the Total Population, Cat. No. 97-564-X2006002.

Appendix Table 2: Changes in the On-Reserve Aboriginal Population (Top-Down Approach Data), 2001-2006

Province/ Territory	Total On- Reserve Aboriginal Population in 2001 (1)	Total On- Reserve Aboriginal Population in 2006 (2)	Change in On-Reserve Aboriginal Population (3)=(2)-(1)	Change in the General Population of Province/ Territory and Canada (4)	Percentage Change in the General Population of Province/ Territory and Canada (%) (5)	On- Reserve Aboriginal Population as a Percentage of General Population in Province/ Territory in 2001 (%) (6)	On- Reserve Aboriginal Population as a Percentage of General Population in Province/ Territory in 2006 (%) (7)	Percentage Point Change in the Share of On- Reserve Aboriginal Population in the General Population (8)=(7)-(6)	On- Reserve Aboriginal Population as a Percentage of General Population in Canada in 2001 (%) (9)	On-Reserve Aboriginal Population as a Percentage of General Population in Canada in 2006 (%) (10)
NFL	755	1,435	680	-7,470	-1.47	0.15	0.29	0.14	0.00	0.00
PEI	375	400	25	820	0.61	0.28	0.30	0.02	0.00	0.00
NS	7,370	7,980	610	5,525	0.62	0.82	0.88	0.06	0.02	0.03
NB	6,025	7,005	980	-65	-0.01	0.84	0.97	0.14	0.02	0.02
QC	32,800	33,810	1,010	310,325	4.36	0.46	0.45	-0.01	0.11	0.11
ON	40,495	47,515	7,020	743,350	6.59	0.36	0.40	0.04	0.14	0.15
MB	52,060	56,765	4,705	29,815	2.70	4.72	5.01	0.29	0.18	0.18
SK	47,070	49,015	1,945	-9,305	-0.97	4.89	5.14	0.25	0.16	0.16
AB	37,490	41,275	3,785	315,205	10.72	1.27	1.27	-0.01	0.13	0.13
BC	46,380	51,055	4,675	205,510	5.31	1.20	1.25	0.05	0.16	0.16
YK	1,955	1,970	15	1,670	5.86	6.85	6.53	-0.33	0.01	0.01
NWT	13,285	10,260	-3,025	3,950	10.65	35.80	24.99	-10.81	0.04	0.03
NU	n/a	n/a	n/a	2,660	9.98	0.00	n/a	n/a	0.00	n/a
CAN	286,080	308,490	22,410	1,601,995	5.41	0.97	0.99	0.02	0.97	0.99

Sources: Statistics Canada, 2006 Census Topic-based Tabulations, Cat. No. 97-564-X2006002;
Statistics Canada, 2001 Census Topic-based Tabulations, Cat. No. 97F0011XCB2001001.

**Appendix Table 3: Administrative Information on Band Population and 2006 Aboriginal Population Profiles Coverage
(Bottom-Up Approach Reserve-Level Data)**

	Number of Bands (1)	Number of Bands with 2006 Community-Reported Population Counts (2)	Community-Reported 2006 Band Population (3)	Number of Bands with Positive* 2009 Registered Population Counts (4)	Number of Reserves (5)	Number of Reserves with 2006 Population Information (6)	Total Population for Reserves with 2006 Census Population Information (7)	Number of Reserves with 2006 Aboriginal Identity Population Information (8)	Total Aboriginal Identity Population for Reserves with 2006 Census Population Information (9)	Number of Reserves with 2005 Employment and Average Earnings Information ** (10)	Total Employed Aboriginal Identity Population Captured in 2006 GDP Estimates (11)
NFL	3	3	3,480	3	3	2	1,573	2	1,435	2	765
PEI	2	2	1,031	0	5	4	445	0	0	0	0
NS	13	13	12,519	11	36	22	8,442	14	7,765	9	2,480
NB	15	15	11,769	14	25	18	7,586	14	6,620	8	2,220
QC	39	39	65,410	36	42	30	33,764	28	32,170	26	13,310
ON	137	133	141,922	114	197	127	51,176	61	35,940	60	14,545
MB	63	62	109,427	59	257	71	57,424	53	52,350	53	14,875
SK	68	68	111,213	66	543	114	48,077	65	42,120	65	10,430
AB	46	44	87,530	42	122	71	41,680	38	36,890	38	11,480
BC	196	194	112,107	171	1,598	382	73,029	44	23,240	44	8,985
YK	18	18	8,574	17	16	9	1,172	1	0	0	0
NWT	26	26	15,105	24	35	16	5,309	8	4,540	8	1,980
NU	0	0	0	0	0	0	0	0	0	0	0
CAN	626	617	680,087	557	2,879	866	329,677	328	243,070	313	81,070

* A total of two bands with zero registered population counts as of June, 2009 were found, one for Ontario and another one for the Yukon Territory.

** For Aboriginal identity population 15 years of age and older.

Sources:

Column 1-5: Aboriginal Canada Portal and INAC Administrative Profiles,

Columns 6-11: Statistics Canada, 2006 Aboriginal Population Profiles.

Total Registered Band Population by Province/Territory as a Percentage of Total Registered Band Population in Canada (excluding PEI) (%) (5) = [(3)/687,915]*100	0.7	n/a	1.8	1.9	9.0	16.5	17.1	18.5	14.6	16.3	1.2	2.4	100.0
% 1-50	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.00	0.00	2.92	0.00	0.00	1.08
% 51-100	0.00	0.00	0.00	0.00	0.00	1.75	0.00	0.00	0.00	4.09	0.00	4.17	1.80
% 101-250	0.00	0.00	18.18	28.57	2.78	7.89	8.47	1.52	2.38	29.82	29.41	20.83	15.08
% 251-500	0.00	0.00	0.00	0.00	8.33	19.30	1.69	6.06	9.52	18.71	17.65	16.67	13.11
% 501-1,000	33.33	0.00	45.45	42.86	33.33	32.46	20.34	12.12	19.05	28.07	47.06	37.50	27.65
% 1,001-1,500	33.33	0.00	18.18	7.14	8.33	10.53	20.34	25.76	9.52	4.09	5.88	16.67	11.49
% 1,501-2,000	0.00	0.00	0.00	14.29	13.89	7.89	13.56	21.21	19.05	8.19	0.00	0.00	10.77
% 2,001-3,000	33.33	0.00	9.09	7.14	13.89	11.40	18.64	22.73	21.43	2.34	0.00	4.17	10.95
% 3,001-4,000	0.00	0.00	9.09	0.00	13.89	3.51	5.08	6.06	4.76	1.17	0.00	0.00	3.77
% 4,001-5,000	0.00	0.00	0.00	0.00	5.56	1.75	3.39	1.52	2.38	0.58	0.00	0.00	1.62
% 5,001-6,000	0.00	0.00	0.00	0.00	0.00	0.88	3.39	0.00	0.00	0.00	0.00	0.00	0.54
% 6,001-7,000	0.00	0.00	0.00	0.00	0.00	0.00	1.69	0.00	2.38	0.00	0.00	0.00	0.36
% 7,001-8,000	0.00	0.00	0.00	0.00	0.00	0.88	1.69	0.00	4.76	0.00	0.00	0.00	0.72
% 8,001-9,000	0.00	0.00	0.00	0.00	0.00	0.00	1.69	3.03	0.00	0.00	0.00	0.00	0.54
% 9,001-10,000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.38	0.00	0.00	0.00	0.18
% 10,001-11,000	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.00	2.38	0.00	0.00	0.00	0.36

* Figures based on the available population information (information on band population for Prince Edward Island is excluded).

Source: Rows (1)-(5): INAC First Nation Profiles.

Appendix Table 5: Number of Reserves by Total On-Reserve Population Size (Bottom-Up Approach Data), by Province/Territory and for Canada, 2006

Population	NFL	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YK	NWT	CAN
0	0	0	1	0	0	2	0	9	4	25	3	0	44
1-50	0	2	6	3	1	10	2	19	8	145	2	0	198
51-100	0	0	2	3	0	18	6	5	5	57	0	3	99
101-250	0	1	4	2	3	29	7	12	15	84	2	5	164
251-500	0	1	4	5	3	35	16	28	14	33	1	5	145
501-1,000	2	0	3	3	8	24	21	32	11	22	1	2	129
1,001-1,500	0	0	1	1	8	4	7	7	9	6	0	0	43
1,501-2,000	0	0	0	1	4	3	5	2	1	5	0	1	22
2,001-3,000	0	0	1	0	2	2	6	0	2	2	0	0	15
3,001-4,000	0	0	0	0	1	0	0	0	1	0	0	0	2
4,001-5,000	0	0	0	0	0	0	1	0	1	0	0	0	2
5,001-6,000	0	0	0	0	0	0	0	0	0	1	0	0	1
TOTAL- Number of Reserves with Information in Community Profiles and Positive Population in 2001 and 2006 (1)	2	4	21	18	30	125	71	105	67	355	6	16	820
% 1-50	0.00	50.00	28.57	16.67	3.33	8.00	2.82	18.10	11.94	40.85	33.33	0.00	24.15
% 51-100	0.00	0.00	9.52	16.67	0.00	14.40	8.45	4.76	7.46	16.06	0.00	18.75	12.07
% 101-250	0.00	25.00	19.05	11.11	10.00	23.20	9.86	11.43	22.39	23.66	33.33	31.25	20.00
% 251-500	0.00	25.00	19.05	27.78	10.00	28.00	22.54	26.67	20.90	9.30	16.67	31.25	17.68
% 501-1,000	100.00	0.00	14.29	16.67	26.67	19.20	29.58	30.48	16.42	6.20	16.67	12.50	15.73
% 1,001-1,500	0.00	0.00	4.76	5.56	26.67	3.20	9.86	6.67	13.43	1.69	0.00	0.00	5.24
% 1,501-2,000	0.00	0.00	0.00	5.56	13.33	2.40	7.04	1.90	1.49	1.41	0.00	6.25	2.68
% 2,001-3,000	0.00	0.00	4.76	0.00	6.67	1.60	8.45	0.00	2.99	0.56	0.00	0.00	1.83
% 3,001-4,000	0.00	0.00	0.00	0.00	3.33	0.00	0.00	0.00	1.49	0.00	0.00	0.00	0.24
% 4,001-5,000	0.00	0.00	0.00	0.00	0.00	0.00	1.41	0.00	1.49	0.00	0.00	0.00	0.24
% 5,001-6,000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.12
Total On-Reserve Population Covered by the Aboriginal Population Profiles in 2006 (Reserve-Level Data) (2)	1,573	445	8,442	7,586	33,764	51,176	57,424	48,077	41,680	73,029	1,172	5,309	329,677
Total On-Reserve Population (Provincial-Level Data)(3)	1,575	440	8,455	7,590	35,155	50,375	57,465	50,085	41,885	74,780	3,025	12,035	342,865
Percentage of Total On-Reserve Population Captured in Aboriginal Community Profiles (%) (4)	99.9	101.1	99.8	99.9	96	101.6	99.9	96.0	99.5	97.7	38.7	44.1	96.2

Sources: Row (1)-(2): Statistics Canada, 2006 Aboriginal Population Profiles;
Row (3): Statistics Canada, 2006 Topic-based Tabulations, Cat. No. 97-558-X2006006.

Appendix Table 6: Top-Down and Bottom-Up 2005 National Share-Based GDP per Capita Estimates for Reserves and Percentages of the Relevant Top-Down Approach Population that Form the Basis of the Bottom-Up Estimates

GDP per Capita for Reserves in 2005 (2005 dollars)	NFL	PEI	NS	NB	QC	ON	MB	SK	AB	BC	YK	NWT	CAN
1-5,000	0	n/a	0	0	0	0	3	3	0	1	n/a	0	7
5,001-10,000	0	n/a	2	1	2	4	24	40	8	4	n/a	0	85
10,001-15,000	0	n/a	5	2	8	20	22	18	17	16	n/a	0	108
15,001-20,000	1	n/a	1	4	7	21	4	4	10	12	n/a	0	64
20,001-25,000	1	n/a	0	1	6	12	0	0	2	8	n/a	4	34
25,001-30,000	0	n/a	1	0	1	2	0	0	0	3	n/a	4	11
30,001-35,000	0	n/a	0	0	2	1	0	0	0	0	n/a	0	3
35,001- 40,000	0	n/a	0	0	0	0	0	0	1	0	n/a	0	1
40,001-45,000	0	n/a	0	0	0	0	0	0	0	0	n/a	0	0
45,001- 50,000	0	n/a	0	0	0	0	0	0	0	0	n/a	0	0
TOTAL- Number of Reserves with Employment and Earnings Information in Community Profiles in 2006 (1)	2	0	9	8	26	60	53	65	38	44	0	8	313
% 1-5,000	0.00	n/a	0.00	0.00	0.00	0.00	5.66	4.62	0.00	2.27	n/a	0.00	2.24
% 5,001-10,000	0.00	n/a	22.22	12.50	7.69	6.67	45.28	61.54	21.05	9.09	n/a	0.00	27.16
% 10,001-15,000	0.00	n/a	55.56	25.00	30.77	33.33	41.51	27.69	44.74	36.36	n/a	0.00	34.50
% 15,001-20,000	50.00	n/a	11.11	50.00	26.92	35.00	7.55	6.15	26.32	27.27	n/a	0.00	20.45
% 20,001-25,000	50.00	n/a	0.00	12.50	23.08	20.00	0.00	0.00	5.26	18.18	n/a	50.00	10.86
% 25,001-30,000	0.00	n/a	11.11	0.00	3.85	3.33	0.00	0.00	0.00	6.82	n/a	50.00	3.51
% 30,001-35,000	0.00	n/a	0.00	0.00	7.69	1.67	0.00	0.00	0.00	0.00	n/a	0.00	0.96
% 35,001- 40,000	0.00	n/a	0.00	0.00	0.00	0.00	0.00	0.00	2.63	0.00	n/a	0.00	0.32
% 40,001-45,000	0.00	n/a	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/a	0.00	0.00
% 45,001- 50,000	0.00	n/a	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	n/a	0.00	0.00
Reserve GDP per Capita in 2005 (2005 dollars) - Bottom-Up Approach, Derived from Reserve-Level Data(1)	18,332	n/a	12,120	12,356	18,539	16,253	10,128	9,046	12,470	15,742	n/a	25,226	13,306
Reserve GDP per Capita in 2005 (2005 dollars) - Bottom-Up Approach, Derived from Provincial-Level Data*(2)	18,215	n/a	12,768	14,459	18,774	15,785	10,271	9,165	12,770	15,938	30,149	28,478	14,083
Reserve GDP per Capita in 2005 (2005 dollars) - Top -Down Approach (3)	17,359	n/a	12,174	14,125	18,317	15,114	9,399	8,652	12,125	15,417	30,507	28,639	13,503

Reserve-Level Bottom-up GDP per Capita Estimate as a Percentage of Top-Down Estimate (%) (4)	105.6	n/a	99.6	87.5	101.2	107.5	107.8	104.6	102.8	102.1	n/a	88.1	98.5
Provincial-Level Bottom-up GDP per Capita Estimate as a Percentage of Top-Down Estimate (%) (5)	104.9	n/a	104.9	102.4	102.5	104.4	109.3	105.9	105.3	103.4	98.8	99.4	104.3
Total Employment in 2005 for Reserves with Labour Market Information in 2005 Community Profiles (Reserve-Level Bottom-Up Approach) (6)	765	n/a	2,480	2,220	13,310	14,545	14,875	10,430	11,480	8,985	n/a	1,980	81,070
Total Employment in 2005 for Reserves with Labour Market Information (Provincial-Level Bottom-Up Approach) (7)	760	200	2,715	2,725	14,240	18,570	16,335	12,315	13,170	20,450	1,080	4,830	107,390
Total Employment of On-Reserve, Aboriginal Working Age Population in 2005 (Top-Down Approach)(8)	700	n/a	2,300	2,455	12,500	15,880	13,145	10,345	11,390	18,025	1,060	4,615	92,605
Percentage of the Relevant On-Reserve Aboriginal Population that Formed the Basis of Row (1) Estimates Relative to Provincial-Level Data (%) (9)=[(6)/(7)]*100	100.7	n/a	91.3	81.5	93.5	78.3	91.1	84.7	87.2	43.9	n/a	41.0	75.5
*Although these data are obtained at the provincial level for on-reserve Aboriginals, these numbers are part of the "bottom-up" approach in that they take the average employment income and employment rate data directly from the source instead of aggregating based of FYFT and PYPT average earnings and employment.													
Sources: Row (1), (3), (4), (6), (8), (9): Statistics Canada, 2006 Topic-based Tabulations, Cat. No. 97-564-X2006002. Row (2), (5), (7), (10): Statistics Canada, 2006 Aboriginal Population Profiles.													

Appendix Table 7: Decomposition of the On-Reserve Aboriginal Identity Population's Share of the General Canadian Population's Total Earnings (Top-Down Approach)

	Working Age Population (Persons aged 15+)			Employment Rate of those Persons 15 +			Average Earnings of those Persons 15+ with Employment Income			Total Earnings of Persons 15+		
	Aboriginal Population on Reserves (1)	General Population (2)	Ratio (per cent) (3) = (1)/(2)*100	Aboriginal Population on Reserves (4)	General Population (5)	Ratio (6) = (4)/(5)	Aboriginal Population on Reserves (7)	General Population (8)	Ratio (9) = (7)/(8)	Aboriginal Population on Reserve (10)	General Population (11)	Ratio (per cent) (12) = (10)/(11) = (3)*(6)*(9)
2005/2006												
NFL	965	422,385	0.23	72.5	60.9	1.19	16,828	29,057	0.58	11,779,320	7,474,568,615	0.16
PEI	270	110,205	0.24	n/a	70.3	n/a	n/a	26,270	n/a	n/a	2,033,851,640	n/a
NS	5,160	756,595	0.68	44.6	63.4	0.70	19,973	31,210	0.64	45,937,920	14,979,146,950	0.31
NB	4,800	601,425	0.80	51.1	64.6	0.79	19,058	29,424	0.65	46,786,765	11,423,022,170	0.41
QC	22,490	6,184,490	0.36	55.6	64.1	0.87	23,427	34,306	0.68	292,841,390	136,016,400,660	0.22
ON	32,110	9,819,420	0.33	49.5	66.5	0.74	21,384	41,395	0.52	339,580,795	270,300,235,520	0.13
MB	35,595	908,450	3.92	36.9	67.1	0.55	19,193	32,799	0.59	252,288,910	19,987,678,840	1.26
SK	30,555	766,235	3.99	33.9	67.8	0.50	19,385	32,174	0.60	200,536,285	16,717,842,740	1.20
AB	26,205	2,625,145	1.00	43.5	74.2	0.59	20,776	44,051	0.47	236,639,900	85,790,803,055	0.28
BC	37,220	3,394,910	1.10	48.4	65.1	0.74	20,648	37,047	0.56	372,184,800	81,896,912,710	0.45
YK	1,525	24,490	6.23	69.5	79.8	0.87	26,809	38,676	0.69	28,417,965	755,724,645	3.76
NWT	7,175	31,135	23.04	64.3	79.1	0.81	30,107	47,660	0.63	138,945,410	1,174,111,055	11.83
NU	n/a	19,340	n/a	n/a	n/a	n/a	n/a	39,037	n/a	n/a	507,090,900	n/a
CAN	204,075	25,664,220	0.80	45.4	66.4	0.68	21,271	38,086	0.56	1,969,772,115	649,058,506,915	0.30
2000/2001												
NFL	565	419,015	0.13	82.3	61.0	1.35	14,320	24,359	0.59	6,658,830	6,222,343,790	0.11
PEI	245	106,690	0.23	71.4	73.5	0.97	15,641	22,517	0.69	2,737,250	1,765,881,725	0.16
NS	4,595	732,365	0.63	56.4	64.5	0.87	13,977	26,879	0.52	36,199,600	12,696,765,300	0.29
NB	3,945	589,370	0.67	59.8	66.7	0.90	13,929	25,197	0.55	32,873,050	9,902,400,265	0.33
QC	21,190	5,832,345	0.36	60.4	65.4	0.92	18,303	29,817	0.61	234,092,690	113,693,338,930	0.21
ON	26,580	9,048,040	0.29	60.0	69.8	0.86	18,812	35,612	0.53	300,138,670	225,049,114,035	0.13
MB	31,220	869,315	3.59	47.3	70.7	0.67	15,922	27,605	0.58	235,089,250	16,972,386,870	1.39
SK	27,500	755,525	3.64	43.0	70.7	0.61	14,975	26,274	0.57	176,924,760	14,042,512,570	1.26
AB	22,665	2,322,020	0.98	46.6	76.5	0.61	17,566	33,101	0.53	185,675,480	58,795,588,910	0.32
BC	32,350	3,160,565	1.02	59.8	67.5	0.89	16,755	31,952	0.52	324,286,165	68,127,187,040	0.48
YK	1,475	22,485	6.56	72.5	83.4	0.87	18,950	31,685	0.60	20,276,770	593,937,995	3.41
NWT	8,870	26,945	32.92	67.1	80.7	0.83	24,154	37,120	0.65	143,716,100	807,542,065	17.80
NU	n/a	16,680	n/a	n/a	72.0	n/a	n/a	29,095	n/a	n/a	349,578,800	n/a
CAN	181,205	23,901,360	0.76	54.0	68.8	0.78	17,378	32,183	0.54	1,700,470,450	529,148,020,550	0.32

Source: 2001 Census Topic-based Tabulations, Cat. No. 97F0011XCB2001001; 2006 Topic-based Tabulations, Cat. No. 97-564-X2006002.

Appendix Table 8: Variables Subject to the Analysis and Corresponding Data Sources

No.	Variable	Retrieved(R)/ Derived(D)	Data Source/Derivation
I. Variables for general and Aboriginal identity population, by province/territory/Canada			
1	Population in 2001 and 2006	R	<ul style="list-style-type: none"> Statistics Canada, Census-based 2001 Topic-based tabulation, Cat. No. 97F0011XCB2001001. Statistics Canada, Census-based 2006 Topic-based tabulation, Cat. No. 97-558-X2006006.
2	Population 15 years of age and older in 2001 and 2006	R	<ul style="list-style-type: none"> Statistics Canada, Census-based 2001 Topic-based tabulation, Cat. No. 97F0011XCB2001044. Statistics Canada, Census-based 2006 Topic-based tabulation, Cat. No. 97-564-X2006002.
3	Population 0-14 years of age and older in 2001 and 2006	D	(3)=(1)-(2)
4	Total population 15 years and over with employment income in 2005	R	<ul style="list-style-type: none"> Statistics Canada, Census-based 2006 Topic-based tabulation, Cat. No. 97-564-X2006002.
5	2005 Employment rate based on total population with earnings (counts)	D	(5)=[(4)/(2)]*100
6	Average employment income or earnings in 2005, including wages and salaries, net income from a non-farm unincorporated business and/or professional practice, and/or net farm self-employment income	R	<ul style="list-style-type: none"> Statistics Canada, Census-based 2006 Topic-based tabulation, Cat. No. 97-564-X2006002.
7	Median employment income or earnings in 2005, including wages and salaries, net income from a non-farm unincorporated business and/or professional practice, and/or net farm self-employment income	R	<ul style="list-style-type: none"> Statistics Canada, Census-based 2006 Topic-based tabulation, Cat. No. 97-564-X2006002.
8	Total income received by persons 15 years of age and over during calendar year 2005	D	(8)=(4)*(6)

9	FYFT employment - Aboriginal identity population 15 years of age and older with employment income in 2000 and 2005	R	<ul style="list-style-type: none"> Statistics Canada, Census-based 2001 Topic-based tabulation, Cat. No. 97F0011XCB2001044.
10	Part-year or part-time employment - Aboriginal identity population 15 years of age and older with employment income in 2000 and 2005	R	<ul style="list-style-type: none"> Statistics Canada, Census-based 2006 Topic-based tabulation, Cat. No. 97-564-X2006002.
11	FYFT average earnings- Aboriginal identity population 15 years of age and older with employment income in 2000 and 2005	R	
12	Part-year and/or part-time average earnings- Aboriginal identity population 15 years of age and older with employment income in 2000 and 2005	R	
13	Employment based on FYFT and part-year or part-time employment in 2000 and 2005	D	(13)=(9)+(10)
14	Employment rate based on FYFT and part-year or part-time employment in 2000 and 2005	D	(14)=[(13)/(2)]*100
15	FYFT employment rate	D	(15)=[(9)/(2)]*100
16	Average earnings - Aboriginal identity population 15 years of age and older with employment income in a given year in 2000 and 2005	D	(16)=[(9)*(11)+(10)*(12)]/(13)
17	Total Earnings - Aboriginal identity population 15 years of age and older with employment income in 2000 and 2005	D	(17)= (9)*(11)+(10)*(12)
II. Variables for on-reserve total and Aboriginal identity population, by province/territory/Canada			
18	On-reserve population, by province and territory in 2001 and 2006	R	<ul style="list-style-type: none"> Statistics Canada, Census-based 2001 Topic-based tabulation, Cat. No. 97F0011XCB2001001. Statistics Canada, Census-based 2006 Topic-based tabulation, Cat. No. 97-558-X2006006.
19	On-reserve population 15 years of age and older in 2001 and 2006	R	
20	On-reserve population 0-14 years of age and older in 2001 and 2006	D	(20)=(18)-(19)
21	Total population 15 years and over with employment income in 2005	R	<ul style="list-style-type: none"> Statistics Canada, Census-based 2006 Topic-based tabulation, Cat. No. 97-564-X2006002.
22	2005 Employment rate based on total	D	

	population with earnings (counts)		(22)=[(21)/(19)]*100
23	Average employment income or earnings in 2005, including wages and salaries, net income from a non-farm unincorporated business and/or professional practice, and/or net farm self-employment income	R	<ul style="list-style-type: none"> Statistics Canada, Census-based 2006 Topic-based tabulation, Cat. No. 97-564-X2006002.
24	Median employment income or earnings in 2005, including wages and salaries, net income from a non-farm unincorporated business and/or professional practice, and/or net farm self-employment income	R	<ul style="list-style-type: none"> Statistics Canada, Census-based 2006 Topic-based tabulation, Cat. No. 97-564-X2006002.
25	Total income received by persons 15 years of age and over during calendar year 2005	D	(25)=(21)*(23)
26	On-reserve FYFT employment (Aboriginal population 15 years of age and older with employment income in 2000 and 2005)	R	<ul style="list-style-type: none"> Statistics Canada, Census-based 2001 Topic-based tabulation, Cat. No. 97F0011XCB2001044.
27	On-reserve part-year or part-time employment (Aboriginal population 15 years of age and older with employment income in 2000 and 2005)	R	<ul style="list-style-type: none"> Statistics Canada, Census-based 2006 Topic-based tabulation, Cat. No. 97-564-X2006002.
28	On-reserve FYFT average earnings- Aboriginal identity population 15 years of age and older with employment income in 2000 and 2005	R	
29	On-reserve part-year or part-time average earnings- Aboriginal identity population 15 years of age and older with employment income in 2000 and 2005	R	
30	On-reserve employment (population 15 years of age and older with employment income in 2000 and 2005)	D	(30)=(26)+(27)
31	On-reserve employment rate - Aboriginal identity population 15 years of age and older in 2000 and 2005	D	(31)=[(30)/(19)]*100
32	Average earnings - Aboriginal identity population 15 years of age and older, residing on a reserve, with employment income in a given year in 2000 and 2005	D	(32)=[(26)*(28)+(27)*(29)]/(30)
33	Total Earnings - Aboriginal identity population 15 years of age and older, residing on a reserve, with employment income in a given year in 2000 and 2005	D	(33)=(26)*(28)+(27)*(29)
III. Reserve-specific indicators based on 2006 Census community-level information, by province and territory			
34	On-reserve population, by province and territory in 2006	R	<ul style="list-style-type: none"> Statistics Canada, 2006 Aboriginal Population Profiles
35	On-reserve Aboriginal identity population in 2006	R	<ul style="list-style-type: none"> Statistics Canada, 2006 Community Profiles
36	On-reserve Aboriginal identity population 15 years of age and older in 2006	R	

37	On-reserve Aboriginal identity population 0-14 years of age and older in 2006	D	(37)=(35)-(36)
39	Reserve employment in 2005 - Aboriginal identity population 15 years of age and older with employment income in 2005	R	<ul style="list-style-type: none"> • Statistics Canada, 2006 Aboriginal Population Profiles
40	Reserve employment rate in 2006 census reference week - Aboriginal identity population 15 years of age and older in 2005	R	
41	Average earnings - Aboriginal identity population 15 years of age and older, residing on a given reserve, with employment income in 2005	R	
42	Total Earnings - Aboriginal identity population 15 years of age and older, residing on a given reserve, with employment income in 2005	R	

Appendix Table 9: Incompletely Enumerated Indian Reserves and Indian Settlements in 2006 Population Counts

Province	Indian Reserve/ Settlement (1)	2001 Population Count (2)	2006 Population Count (3)	Population Estimates for 2006 (4)	Band(s) on Reserve (5)	Band Population (Community- Reported Data in 2006) (6)	Total Registered Population (Registered Population as of June, 2009) (7)	Registered Population on a Reserve (Registered Population as of June, 2009) (8)
QC	Akwesasne (formerly Akwesasne 15)	n/a	n/a	16,600	Mohawks of Akwesasne	9,771	10,939	8,843
	Doncaster	n/a	n/a		Kahnawake, Mohawks of Kanesatake	-	-	-
	Gesgapegiag	488	n/a		Micmacs of Gesgapegiag	1,158	1,298	599
	Kahnawake	n/a	n/a		Kahnawake	9,092	n/a	n/a
	Kanesatake	n/a	n/a		Mohawks of Kanesatake	1,990	2,036	1,344
	Lac-Rapide	n/a	n/a		Algonquins of Barriere Lake	584	663	201
	Wendake	1,555	n/a		Nation Huronne Wendat	2953	3029	1330
ON	Akwesasne (Part) 59	n/a	n/a	15,392	Mohawks of Akwesasne	9,771	10,939	8,843
	Attawapiskat 91A	1,293	n/a		Attawapiskat	2,680	3,041	1641
	Bear Island 1	n/a/	n/a		Temagami First Nation	608	680	233
	Factory Island 1	1,430	n/a		Moose Cree First Nation	3,397	n/a	n/a
	Fort Severn 89	401	n/a		Fort Seven	567	638	504
	Oneida 41	n/a	n/a		Oneida Nation of the Thames	4,930	n/a	n/a
	Six Nations (Part) 40	n/a	n/a		Bands*	-	-	-
	Six Nations (Part) 40	n/a	n/a					
	Tyendinaga Mohawk Territory	n/a	n/a		Mohawks of the Bay of Quinte	7,270	7,891	2,132
Wahta Mohawk Territory	n/a	n/a	Wahta Mohawk	659	681	167		
SK	Big Island Lake Cree Territory	n/a	n/a	739	Big Island Lake Cree Nation	814	993	792
AB	Little Buffalo	n/a	n/a	7,271	Lubicon Lake	386	n/a	n/a
	Saddle Lake 125	n/a	n/a		Saddle Lake	7,941	9,033	5,951

	Tsuu T'ina Nation 145 (Sarcee 145)	n/a	n/a		Tsuu T'Ina Nation	1,432	1,710	1,426
BC	Esquimalt	n/a	n/a	113	Esquimalt	219	257	168
TOTALS (excluding n/a entries)			5,167	40,115		66,222	53,828	34,174

* The bands in the Six Nations (Part) 40 are: Bay of Quinte Mohawk, Bearfoot Onondaga, Delaware, Konadaha Seneca, Lower Cayuga, Lower Mohawk, Niharondasa Seneca, Oneida, Onondaga Clear Sky, Six Nations of the Grand River, Tuscarora, Upper Cayuga, Upper Mohawk, and Walker Mohawk.

Sources:

Columns 1-3: Statistics Canada "Aboriginal Peoples Technical Report, 2006 Census", Statistics Canada, Aboriginal Peoples – Cat. No. 92-569-X.

Column 4: Statistics Canada (2008). 2006 Census: Reference Material. Incompletely enumerated Indian reserves and Indian settlements. Retrieved 06 25, 2009, from Statistics Canada - 2006 Census:

<http://www12.statcan.ca/census-recensement/2006/ref/notes/aboriginal-autochtones-eng.cfm#app3>

Column 5-8: Indian and Northern Affairs Canada – First Nation Profiles.

Appendix Table 10: Population in 2006, Aggregate Employment and Earnings (Bottom-Up Approach) in 2005, by Province/Territory and for Canada

Population Totals	Province/Territory	Population (1)	Population 15 years of age and older (2)	Population 0-14 years of age (3)=(1)-(2)	Total Employment in 2005 (Population 15 years of age and older) (4)	Employment Rate in 2005 (Population 15 years of age and older) (5)	Average 2005 Earnings based on Bottom-Up Approach (Population 15+ with employment income) (2005 constant dollars) (6)	Total 2005 Earnings based on Bottom-Up Approach (Population 15+ with employment income) (2005 constant dollars, thousands) (7)	Excess of Total 2005 Earnings Estimated Using Bottom-Up Approach Relative to Earnings Estimated Using Top-Down Approach (per cent) (8)	
Aboriginal Identity Population on Reserves: Results from Reserve-Level Data	NFL	1,435	965	470	765	79.3	16,553	12,663	7.5	
	PEI	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	NS	7,765	4,790	2,975	2,480	51.8	18,266	45,300	-1.4	
	NB	6,620	4,080	2,540	2,220	54.4	17,736	39,373	-15.8	
	QC	32,170	21,190	10,980	13,310	62.8	21,569	287,085	-2.0	
	ON	35,940	18,350	17,590	14,545	79.3	19,331	281,178	-17.2	
	MB	52,350	32,725	19,625	14,875	45.5	17,158	255,219	1.2	
	SK	42,120	26,245	15,875	10,430	39.7	17,585	183,410	-8.5	
	AB	36,890	23,370	13,520	11,480	49.1	19,289	221,440	-6.4	
	BC	23,240	16,840	6,400	8,985	53.4	19,600	176,103	-52.7	
	YK	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	NWT	4,540	3,115	1,425	1,980	63.6	27,843	55,129	-60.3	
	NU	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CAN	243,070	151,670	91,400	81,070	53.5	19,204	1,556,898	-21.0		
Aboriginal Identity Population on Reserves: Results from Provincial-Level Data*	NFL	1,435	965	470	760	78.8	16,555	12,582	6.8	
	PEI	400	270	130	200	74.1	n/a	n/a	n/a	
	NS	7,980	5,160	2,820	2,715	52.6	18,064	49,044	6.8	
	NB	7,005	4,800	2,205	2,725	56.8	17,892	48,756	4.2	
	QC	33,810	22,490	11,320	14,240	63.3	21,456	305,533	4.3	
	ON	47,515	32,110	15,405	18,570	57.8	19,441	361,019	6.3	
	MB	56,765	35,595	21,170	16,335	45.9	17,180	280,635	11.2	
	SK	49,015	30,555	18,460	12,315	40.3	17,559	216,239	7.8	
	AB	41,275	26,205	15,070	13,170	50.3	19,264	253,707	7.2	
	BC	51,055	37,220	13,835	20,450	54.9	19,154	391,699	5.2	
	YK	1,970	1,525	445	1,080	70.8	26,472	28,590	0.6	
	NWT	10,260	7,175	3,085	4,830	67.3	29,119	140,645	1.2	
	NU	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CAN	308,490	204,075	104,415	107,190	52.6	19,484	2,091,967	6.2		
General Population	NFL	500,610	422,385	78,225	271,250	64.2	28,002	7,595,543	1.6	
	PEI	134,205	110,205	24,000	80,675	73.2	25,574	2,063,182	1.4	
	NS	903,090	756,595	146,495	508,300	67.2	29,958	15,227,651	1.7	
	NB	719,650	601,425	118,225	409,085	68.0	28,353	11,598,787	1.5	
	QC	7,435,905	6,184,490	1,251,415	4,225,875	68.3	32,639	137,928,334	1.4	
	ON	12,028,900	9,819,420	2,209,480	6,991,670	71.2	39,386	275,373,915	1.9	
	MB	1,133,515	908,450	225,065	650,410	71.6	31,318	20,369,540	1.9	
	SK	953,850	766,235	187,615	553,655	72.3	30,773	17,037,625	1.9	
AB	3,256,355	2,625,145	631,210	2,058,650	78.4	42,439	87,367,047	1.8		

BC	4,074,385	3,394,910	679,475	2,392,805	70.5	34,978	83,695,533	2.2
YK	30,190	24,490	5,700	20,155	82.3	37,908	764,036	1.1
NWT	41,055	31,135	9,920	25,255	81.1	46,750	1,180,671	0.6
NU	29,325	19,340	9,985	13,470	69.6	37,997	511,820	0.9
CAN	31,241,030	25,664,220	5,576,810	18,201,265	70.9	36,301	660,724,121	1.8

*Although these data are obtained at the provincial level for on-reserve Aboriginals, these numbers are part of the “bottom-up” approach in that they take the average employment income and employment rate data directly from the source instead of aggregating based of FYFT and PYPT average earnings and employment.

Source: 2006 Topic-based tabulations: Column 1: Aboriginal Identity (8), Area of Residence (6), Age Groups (12) and Sex (3) for the Population, Cat. No. 97-558-X2006006. Columns 2-8: Aboriginal Identity (8), Age Groups (8), Area of Residence (6), Sex (3) and Selected Demographic, Cultural, Labour Force, Educational and Income Characteristics (233), for the Total Population, Cat. No. 97-564-X2006002.

Appendix Table 11: Total Earnings and GDP using the Bottom-Up Approach in 2005 and Population in 2006, by Province/Territory and Canada

Province/ Territory	Total 2005 Earnings of the General Population (Persons 15 years of age and older with employment income in 2005) (2005 dollars, thousands) (1)	2005 Gross Domestic Product (GDP), Income-based, at market prices, annual (2005 dollars, thousands) (2)	Share of Total Earnings in GDP in 2005* (3) =(1)/(2)	2005 Total Earnings of the On- Reserve Aboriginal Identity Population (2005 dollars) (4)	Estimates of 2005 On- Reserve GDP Based on Provincial/ Territorial Shares (2005 dollars) (5)=(4)/(3)	Estimates of 2005 On- Reserve GDP Based on National Share (2005 dollars) (6)=(4)/0.481	Estimates of 2005 On- Reserve GDP per Capita Based on Provincial/ Territorial Shares (2005 dollars) (8)	Estimates of 2005 On- Reserve GDP per Capita Based on National Share (9)
Bottom-Up Results from Reserve-Level Data								
NFL	7,595,542	21,939,000	0.346	12,662,925	36,575,653	26,306,683	25,488	18,332
PEI	2,063,182	4,151,000	0.497	n/a	n/a	n/a	n/a	n/a
NS	15,227,651	31,275,000	0.487	45,300,430	93,039,363	94,109,699	11,982	12,120
NB	11,598,787	24,748,000	0.469	39,372,990	84,009,022	81,795,697	12,690	12,356
QC	137,928,334	271,059,000	0.509	287,084,775	564,183,658	596,406,297	17,538	18,539
ON	275,373,915	536,844,000	0.513	281,175,875	548,154,975	584,130,811	15,252	16,253
MB	20,369,540	41,517,000	0.491	255,218,720	520,184,334	530,205,936	9,937	10,128
SK	17,037,625	44,066,000	0.387	183,410,250	474,371,051	381,026,922	11,262	9,046
AB	87,367,047	220,419,000	0.396	221,439,995	558,672,680	460,032,084	15,144	12,470
BC	83,695,533	169,308,000	0.494	176,103,285	356,239,980	365,847,015	15,329	15,742
YK	764,036	1,522,000	0.502	n/a	n/a	n/a	n/a	n/a
NWT	1,180,671	4,248,000	0.278	55,128,750	198,350,709	114,527,612	43,690	25,226
NU	511,820	1,137,000	0.450	n/a	n/a	n/a	n/a	n/a
CAN	660,724,121	1,372,626,000	0.481	1,556,897,995	3,234,388,755	3,234,388,755	13,306	13,306
Bottom-Up Results from Provincial-Level Data**								
NFL	7,595,542	21,939,000	0.346	12,581,800	36,341,332	26,138,149	25,325	18,215
PEI	2,063,182	4,151,000	0.497	n/a	n/a	n/a	n/a	n/a
NS	15,227,651	31,275,000	0.487	49,043,760	100,727,607	101,886,306	12,623	12,768
NB	11,598,787	24,748,000	0.469	48,755,700	104,028,642	101,287,874	14,851	14,459
QC	137,928,334	271,059,000	0.509	305,533,440	600,439,195	634,732,607	17,759	18,774
ON	275,373,915	536,844,000	0.513	361,019,370	703,810,667	750,002,245	14,812	15,785
MB	20,369,540	41,517,000	0.491	280,635,300	571,988,162	583,007,790	10,076	10,271
SK	17,037,625	44,066,000	0.387	216,239,085	559,279,370	449,227,417	11,410	9,165
AB	87,367,047	220,419,000	0.396	253,706,880	640,079,104	527,065,153	15,508	12,770
BC	83,695,533	169,308,000	0.494	391,699,300	792,369,947	813,738,482	15,520	15,938
YK	764,036	1,522,000	0.502	28,589,760	56,952,389	59,393,999	28,910	30,149
NWT	1,180,671	4,248,000	0.278	140,644,770	506,033,527	292,183,473	49,321	28,478
NU	511,820	1,137,000	0.450	n/a	n/a	n/a	n/a	n/a
CAN	660,724,121	1,372,626,000	0.481	2,088,449,165	4,338,663,775	4,338,663,775	14,083	14,083

* Based on provincial-level bottom-up approach data because total earnings can only be estimated for the general population at the provincial level.
**Although these data are obtained at the provincial level for on-reserve Aboriginals, these numbers are part of the "bottom-up" approach in that they take the average employment income and employment rate data directly from the source instead of aggregating based of FYFT and PYPT average earnings and employment.
Note: Column 5 and 9 are not subject to the rounding up of Column. 3

Source: Columns (1), (4), (7): 2006 Census topic-based tabulations, contains data presented in Summary Table 3.
Column (2): CANSIM, Provincial economic accounts, income-based GDP at market prices (annual).

Appendix Table 12: GDP Estimates, Population, Employment Rate, and Earnings of the On-Reserve Aboriginal Population and the General Population of Canada for the National Share-Based Top-Down Approach, 2000 and 2005

Totals for all Reserves in Canada and the General Population at the National Level	Population 15 years of age and older in Census Year (1)	Total Employment Rate in Census Year (%) (2)	Average 2005 Earnings (current dollars) (3)	Total Earnings in 2005 (current dollars, thousands) (4)=[(2)/100*(1)]* (3)	GDP (current dollars, thousands) (5)=(4)/ (0.488 for 2000 and 0.473 in 2005)	GDP (2005 dollars, thousands) (6)	Population (7)	GDP per Capita (2005 dollars) (8)=(6)/(7)
Canada 2000								
Reserves (Aboriginal Population)	181,205	54.0	17,378	1,700,470	3,484,491	3,888,691	286,080	13,593
Canada (General Population)	23,901,360	68.8	32,183	529,148,021	1,084,294,803	1,210,073,000	29,639,035	40,827
Totals for Reserves as a Percentage of Totals for Canada (%)	0.76	78.5	54.0	0.32	0.32	0.32	0.97	33.3
Canada 2005								
Reserves (Aboriginal Population)	204,075	45.4	21,271	1,969,772	4,165,665	4,165,665	308,490	13,503
Canada (General Population)	25,664,220	66.4	38,086	649,058,507	1,372,626,000	1,372,626,000	31,241,030	43,937
Totals for Reserves as a Percentage of Totals for Canada (%)	0.80	68.37	55.85	0.30	0.30	0.30	0.99	30.73
Sources: Statistics Canada, 2006 Census Topic-based Tabulations, Cat. No. 97-564-X2006002; Statistics Canada, 2001 Census Topic-based Tabulations, Cat. No. 97-559-X2006008.								