

# **An Exploration of Economic Self-Reliance of First Nation Communities**

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# **An Exploration of Economic Self-Reliance of First Nation communities**

**Prepared for Indian and Northern Affairs Canada**

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**Final Text**

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## Executive Summary

The purpose of this paper is to draw attention to the economic plight of many First Nation communities. It shows that many First Nation communities, in particular those that have no strong connection to an urban centre, have a very low level of economic development compared to other Canadian communities. The paper shows that well-being, as measured by the Community Well-being Index (CWB)<sup>1</sup>, varies among communities in more or less the same way as the level of economic development. And it proposes measures of economic self-reliance (ESR), i.e., a minimum level of economic development, as an analytical and policy tool, and provides some empirical findings for simplified versions of these measures.

There are 615 First Nations in Canada that own some 2,800 parcels of land of various sizes. The 2001 census enumerated 328 separate First Nation territories with a population of 250 or more. The average population of these communities numbers 478 people, and the largest has 5,022 residents. The communities are very small, and most are not close to a large urban centre.

In this study we compare these First Nation communities with other local economies in Canada. To avoid comparing apples and oranges, we limit the population size of other communities to the same range as that of First Nations, i.e. fewer than 5,500 residents. There are some 3,000 non-First-Nation communities in Canada with such small populations.

We subdivide communities (Census Subdivisions or CSDs) according to their economic links to an urban centre, and examining economic performance indicators for these groups of communities. We rely on Statistics Canada’s Statistical Area Classification (SAC) system to group communities. In this system the economic link is measured by the share of the work force of the community that is employed in the urban centre. The classification distinguishes seven types of communities, from those that are completely integrated with a large metropolitan area to those that have no connection at all. Communities north of sixty form a separate eighth category. Table 1 gives the number of communities in each SAC category.

**Table 1: Census subdivisions with a population of 250 to 5,500, by SAC type and reserve status**

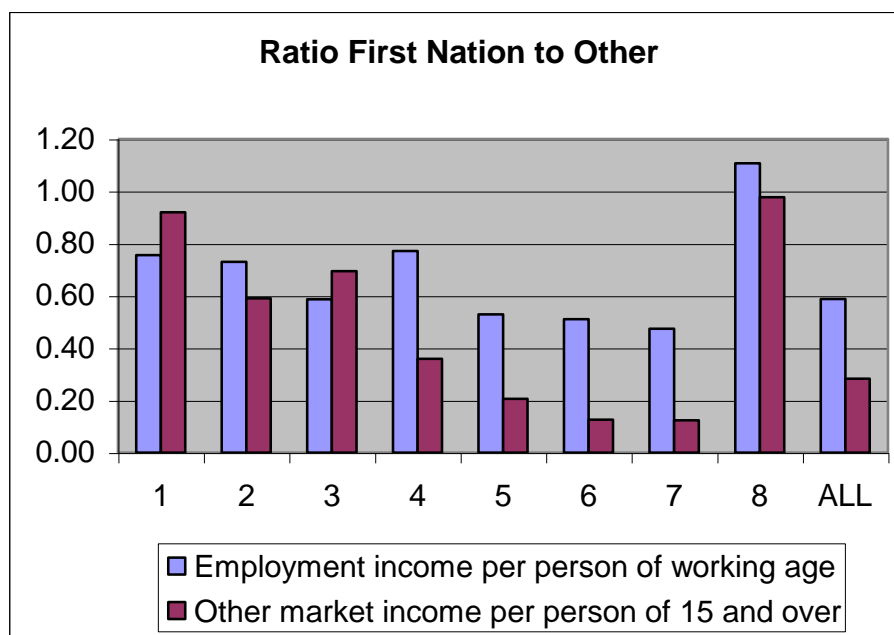
			Number of CSDs		Share of total	
			First Nation	Other	First Nation	Other
CSD is part of CMA or CA	1	Metropolitan	16	153	5%	5%
	2	Large urban	10	31	3%	1%
	3	Small urban	26	167	8%	6%
Influence of CMA or CA	4	Strong	7	428	2%	14%
	5	Moderate	55	1,113	17%	37%
	6	Weak	78	782	24%	26%
	7	None	115	298	35%	10%
	8	North	21	32	6%	1%
Total			328	3,004	100%	100%

<sup>1</sup> The Community Well-Being Index was developed in research papers for Indian and Northern Affairs Canada. The index consists of four equally weighted component indexes for education, the labour force, income and housing.

Note to Table 1: In the table, the term “urban” refers to census agglomerations and does not correspond to Statistics Canada’s definition of an urban area.

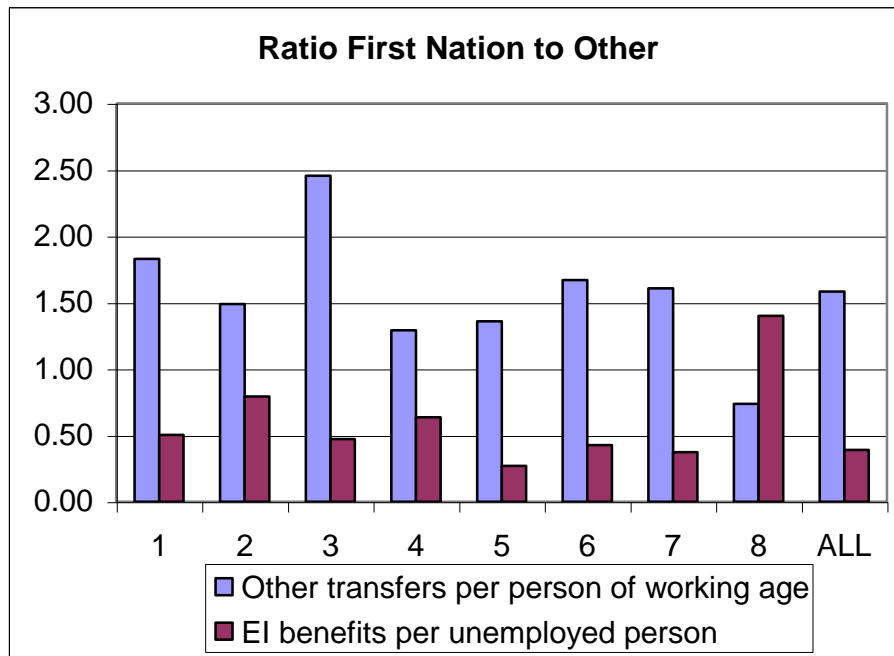
When communities are grouped according to their connection to the economy of an urban centre, one finds that employment as a share of the population of working age is fairly constant among different categories of non-First Nation communities. For First Nation communities, the level of employment is closely associated with a community’s ties to an urban centre. Given these employment patterns, the level of income of either type of community is higher the stronger the connection to an urban centre. Employment income per person of working age reflects both the level of employment and the level of earnings of residents of a community, and it varies in a major way according to the strength of the economic link with an urban centre. The relative level in First Nation communities compared to other communities also is lower the weaker the link to an urban centre (Figure 3). This reflects the concentration of better jobs in urban centres and the lack of private-sector jobs in and near rural and remote First Nation communities. The relative level of other market income varies even more sharply with the economic link to an urban centre.

**Figure 3: Employment income and other market income, small CSDs**



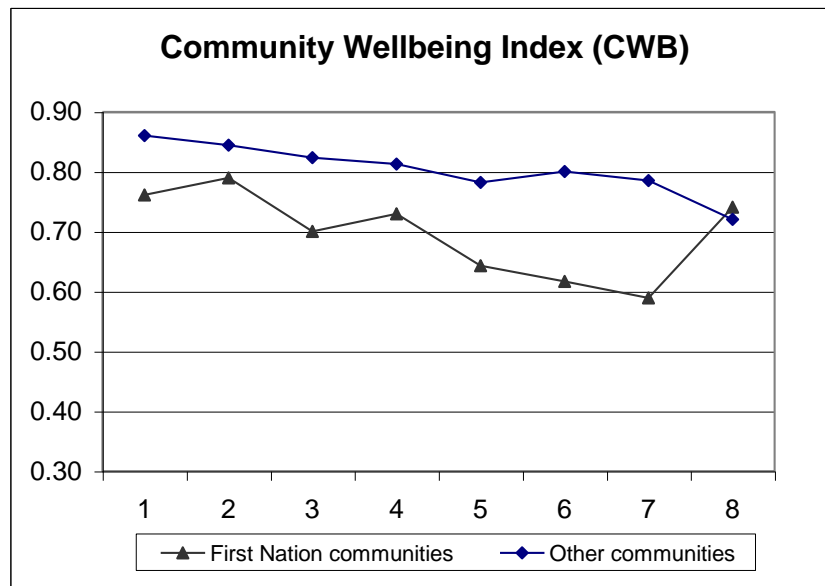
First Nation communities are more dependent than other communities on transfers from government to persons of working age (Figure 6). They receive less in EI benefits, because there is a lack of employment for people to qualify for such benefits. And they receive more in other transfers from government, reflecting mainly higher social assistance payments but also other transfers that compensate for lack of earned income. This pattern of transfer payments reflects the weakness of the First Nation economies seen in Figure 3.

**Figure 6: Other transfer payments and Employment Insurance benefits, small CSDs**



Turning now to the Community Well-being Index (CWB), it also varies in a systematic way over the different categories of communities. By and large, the CWB is higher the stronger the economic connection of the community to an urban centre, and this is so both for First Nation and other CSDs (Figure 8). As well, with one exception, the index is always lower for First Nations than it is for other communities, and the gap is wider the more remote the communities are from an urban centre. As with employment and income, the North, where First Nation communities are compared with Inuit communities, forms an exception to the general pattern.

**Figure 8: The Community Well-Being Index, small CSDs**



We propose measures of economic self-reliance (ESR) for communities. We believe that such measures may be useful for analysis and economic development policy. We would suggest that the economic development of small, remote First Nations that lack an economic base requires sustained attention and financial support and creative approaches. We hope that measures that identify these communities will contribute to a sharper focus on communities facing the greatest economic development challenges.

By economic self-reliance of a community, we mean a certain level of economic activity and capacity that makes such activity a major part of the community's normal activities and sense of itself. We measure the degree of economic self-reliance of a community by the number of families that are economically self-reliant. Broadly speaking, economic self-reliance means earning a living that provides an adequate standard of living for oneself and one's family. We can focus on each aspect of this definition to develop a standard. This leads to a standard reflecting an adequate income, one reflecting sufficient employment to generate such an income, and one that draws a distinction between earnings and transfer payments. In each case we have to consider the situation of the family as the basic social unit that shares income. This is the approach we take.

As an employment-based standard for economic self-reliance of families of working age we propose:

**ESR1: Employment**

An unattached person (family of one) is ESR1 if

- the person attended school full-time;
- the person worked 40 weeks or more and worked mostly full-time;
- if the person worked 40 weeks or more and worked mostly part-time, or 20 to 40 weeks and mostly full-time.

An economic family is ESR1 if all members of 15-59 years of age meet the ESR standard for unattached persons. Other cases:

- The family consists of a couple (legally married or common-law) and one or more children of 6 years or less. The family is ESR1 if both adults meet the standard or if one worked full-time.
- The family comprises three or four persons of working age. One person does not have to meet the ESR1 standard for unattached individuals.
- The family comprises five or more persons of working age. Two persons do not have to meet the ESR1 standard for unattached individuals.

As a standard based on transfer payment income we choose:

**ESR2: Transfer income**

An economic family is self-sufficient if the sum of Employment Insurance benefits and other transfers from government is less than one-half of the family's earnings from paid employment and from self-employment (net farm income plus net non-farm income from professional practice, unincorporated business etc.)

And as a standard reflecting an adequate income we propose:

**ESR3: LICO-based income standard**

A person or family is ESR3 if income is more than 1.25 times the 2000 pre-tax LICO (Low-Income Cut-Off) for that family.

or

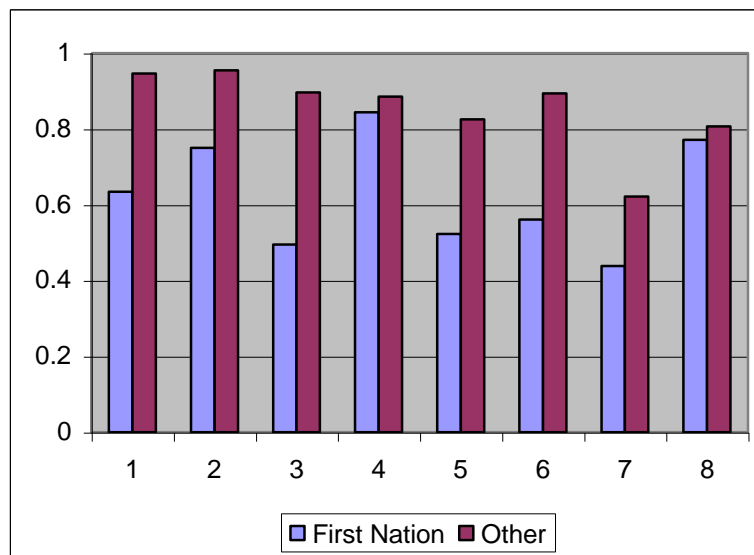
**ESR4: MBM-based income standard**

A family is ESR4 if its income is equal to or greater than

- X times the MBM (Market Basket Measure) for that family, where X is a number between 1 and 2 that still needs to be determined, or
- an adjusted basket of goods and services reflecting the needs of a working family.

We were not able to apply these standards to the 2001 census. Instead, we developed pseudo-ESR measures based on aggregate census data that are in the public domain. We set a standard for each measure that represents the level above which a community is considered economically self-reliant. We combine the resulting indicators into a single measure, the “aggregate ESR standard”, using even weights, and examine what share of communities is economically self-reliant, using the same framework for grouping the communities as earlier in the study. For non-First Nation communities, a stark contrast emerges between the one in ten communities that has no connection to an urban centre and all other communities (Figure 14). Only just over 60% of remote communities without a connection to an urban centre (category 7) meets the aggregate ESR standard; of all other groups of non-First-Nation communities at least 80% are self-reliant by this measure.

**Figure 14: Composite aggregate ESR measure, small CSDs**



For First Nations the pattern is more erratic. The highest rates of ESR are found in category 4, strong connection to an urban centre, the North, and category 2, communities in large urban agglomerations. More than 60% of First Nations in metropolitan areas and in the North are ESR.



Only about one-half of First Nation communities in each of the other four categories reach the minimum level of economic self-reliance, and the share of communities that are ESR does not vary systematically with the strength of the connection to an urban centre.

The economies of First Nation communities do not generate the same levels of employment and income as those of other communities. This is due, in large part, to the small size and remoteness of many First Nation communities, which makes it very difficult for them to participate in the dynamic economic activity of urban centres. We also find that the economic disparities between First Nation and other communities increase as one moves from communities connected to an urban centre to those that are not. The pattern of community well-being, as measured by the Community Well-Being Index, is very similar to this pattern of economic performance. When we classify communities by whether they are economically self-reliant according to several new measures we propose, we find somewhat different patterns than with the standard indicators of employment and income. We suggest that these different patterns are worth exploring further.

First Nations that lack a connection to an urban centre, and are otherwise not advantaged by proximity to an exploitable natural resource or some other significant economic asset, face special economic development challenges. In a recent report, the Senate Committee on Aboriginal Affairs discussed these challenges.<sup>2</sup> The committee points in three directions:

- Small communities should work together to pursue common economic development objectives.
- Remote First Nations should have an urban strategy.
- Many communities need better basic infrastructure.

Of these directions, the notion of an urban strategy for First Nations fits well with the perspective taken and the facts shown in this paper. Working together to overcome size limitations and investing in infrastructure are constructive ideas, and improving the level of education also is a way to make progress, as it has been so often in so many places. We hope that this paper and further analysis of economic self-reliance will contribute to a sharper focus on the challenge of economic development of small, remote First Nations and more and sustained action to meet that challenge.

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<sup>2</sup> “Part VII: Location, Size and Infrastructure”, in *Sharing Canada’s Prosperity – A Hand Up not A Hand Out*, Senate Standing Committee on Aboriginal Affairs, March 2006.

# An Exploration of Economic Self-Reliance of First Nation Communities

## 1 Introduction

The purpose of this paper is to draw attention to the economic plight of many First Nation communities. It shows that many First Nation communities, in particular those that have no strong connection to an urban centre, have a very low level of economic development compared to other Canadian communities. The paper shows that well-being, as measured by the Community Well-Being Index (CWB)<sup>3</sup>, varies among communities in more or less the same way as the level of economic development. And it proposes measures of economic self-reliance, i.e., a minimum level of economic development, as an analytical and policy tool.

In Chapter 2 we review the main facts about the economies of First Nations using well-known measures of labour market activity and the level and composition of income. We group First Nation communities and other communities of similar size according to the strength of their economic connection to an urban centre, using a framework developed by Statistics Canada. Striking patterns emerge, with large differences between the two extremes –communities that are part of an urban centre, and communities that have no connection at all to an urban centre. The main conclusion is that many First Nation communities lack an economic base.

The Appendix gives the rationale for the way in which we group communities. It gives a summary of the literature on regional and local economic development in which connection to an urban centre is identified as a most important factor for economic development of small communities.

Chapter 3 offers a similar review of well-being. We show that measured well-being has more or less the same patterns as economic activity and incomes when communities are subdivided by the strength of their connection to an urban centre. We also explore the connection between well-being and income transfers to people of working age.

In Chapter 4 we propose new measures of economic self-reliance of communities, to make the idea of presence or absence of an economic base operational. The measures require detailed information from the census about individuals and families, and this information was not available for this study. We therefore developed similar, simpler aggregate measures that draw on Statistics Canada's Community Profiles, also based on the 2001 census. These preliminary measures reveal patterns that suggest the proposed measures of economic self-reliance are worth exploring further and may be a useful tool for economic development policy. We offer some suggestions for further analysis.

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<sup>3</sup> The Community Well-Being Index was developed in research papers for Indian and Northern Affairs Canada. The index consists of four equally weighted component indexes for education, the labour force, income and housing. The index is described more fully in Section 3.1.2.

In the Conclusion, finally, we draw attention to a recent senate committee report that presented some ideas for economic development of small, isolated First Nation communities.

In discussing economic self-reliance of people and communities, we risk being seen to make value judgements. While we admittedly regard economic self-reliance as a positive thing, we do not wish to imply that those who are not are somehow at fault. In our view, many of the reasons why persons and communities may not be economically self-reliant are not fully under their control. Our reason for calling attention to lack of economic self-reliance is to ask for more attention to those reasons and for efforts to change things.

## 2 The main facts about First Nation economies

This chapter presents the main economic statistics about the economies of First Nations. A framework for this is presented in section 2.1. The main facts are presented by means of charts in section 2.2. Section 2.3 describes some interesting other studies.

### 2.1 A link to an urban centre

There are 615 First Nations in Canada<sup>4</sup> that own some 2,800 parcels of land of various sizes. The 2001 census enumerated 581 separate First Nation territories with a population of 40 or more. The average population of these communities numbers 478 people, and the largest has 5,022 residents. The communities are very small, and most are not close to a large urban centre.

In this study we compare these First Nation communities with other local economies in Canada. To avoid comparing apples and oranges, we limit the population size of other communities to the same range as that of First Nations, i.e. fewer than 5,500 residents. There are some 3,000 non-First-Nation communities in Canada with such small populations.

These days, economic growth takes place mainly in larger metropolitan and urban centres. These centres can be very dynamic and generate many new businesses and jobs. Self-generated economic growth on a scale to provide good jobs for a growing population is much less common for small communities. Economic ties to larger urban centres, therefore, are very important for the economic development and performance of smaller communities. Readers interested in further exploring this may want to consult section 7.1 in the Appendix, where some recent literature on the subject is reviewed.

We subdivide communities according to their economic links to an urban centre, and examine economic performance indicators for these groups of communities. We rely on Statistics Canada's Statistical Area Classification (SAC) system to group communities. The SAC system is described in a text box on the next page. It defines seven types of communities, from those that are completely integrated with a large metropolitan area to those that have no connection at all. Communities north of sixty form a separate eighth category.

First Nation and other communities are distributed over the eight SAC categories in different ways (Table 1). Three in five First Nation communities but only one in three other communities have only a weak or no connection to urban agglomerations. Within these two groups the majority of First Nation communities has no connection to an agglomeration, whereas the majority of other communities does have such a connection, albeit a weak one. By contrast, only one in six First Nation communities have a moderate connection to an agglomeration, compared to one in three other communities. As we will see, the large group of rural and remote First Nation communities is greatly lacking in economic development.

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<sup>4</sup> This is the number of the First Nation Profiles listed on the web site of Indian and Northern Affairs Canada.

**Table 1: Census subdivisions with a population of 250 to 5,500, by SAC type and reserve status**

			Number of CSDs		Share of total	
			First Nation	Other	First Nation	Other
<b>CSD is part of CMA or CA</b>	<b>1</b>	Metropolitan	16	153	5%	5%
	<b>2</b>	Large urban	10	31	3%	1%
	<b>3</b>	Small urban	26	167	8%	6%
<b>Influence of CMA or CA</b>	<b>4</b>	Strong	7	428	2%	14%
	<b>5</b>	Moderate	55	1,113	17%	37%
	<b>6</b>	Weak	78	782	24%	26%
	<b>7</b>	None	115	298	35%	10%
	<b>8</b>	North	21	32	6%	1%
Total			328	3,004	100%	100%

Note to Table 1: In the table, the term “urban” refers to census agglomerations and does not correspond to Statistics Canada’s definition of an urban area.

Finally, we note that there are only seven First Nation communities in category 4, “strong connection to an urban centre”. If a group has many communities, the group average is likely to represent the features typical of the group, and the unique features of each individual community cannot be seen in the group average because there are too many other communities with other unique features. In small groups this is not always the case.

**SAC**

Statistics Canada’s Statistical Area Classification (SAC has three categories of communities that are part of an urban centre:

1. a census metropolitan area (CMA), and urban centre of with a population of more than 100,000
2. a “tracted” census agglomeration (CA), an urban centre with a population of 50,000 to 100,000
3. a non-tracted census agglomeration, having a population of 10,000 to 50,000.

Generally, a community is considered part of the urban centre if more than one-half of the employed labour force of the community works in the urban centre.

There are four categories for communities in the provinces that are not part of an urban centre, according to the share of the employed labour force of the community that works in the urban core of the agglomeration, as follows:

4. Strong influence: 30% to 50% of the employed labour force commutes to jobs in the urban centre
5. Moderate influence: 5% to 30% commutes
6. Weak influence: less than 5% commutes
7. No influence: no commuting from the CSD to the urban core of the agglomeration.

Communities north of sixty make up category 8, the North.

Each small community considered in this study is a Census Subdivision (CSD), a concept developed by Statistics Canada for the population census that is held every five years. Municipalities as well as populated Indian reserves are CSDs. A First Nation may have more than one CSD. In this study, a community is always a CSD and a First Nation community is most often, but not always, the single populated territory of a First Nation.

## 2.2 The main facts according to the 2001 census

All statistics in this section pertain to CSDs with a population between 250 and 5,500. Statistics Canada does not release income data for smaller communities, and the upper range reflects the size of the most populous First Nation community.

The story is told with the aid of graphs. The numbers behind the graphs can be found in Tables A1 and A2 in the Appendix. In each figure, communities are arranged by their connection to an urban centre as defined in Table 1, from category 1 (part of a metropolitan area) to category 7 (no connection to an urban centre) and 8 (north of 60).

### 2.2.1 *The labour market and income*

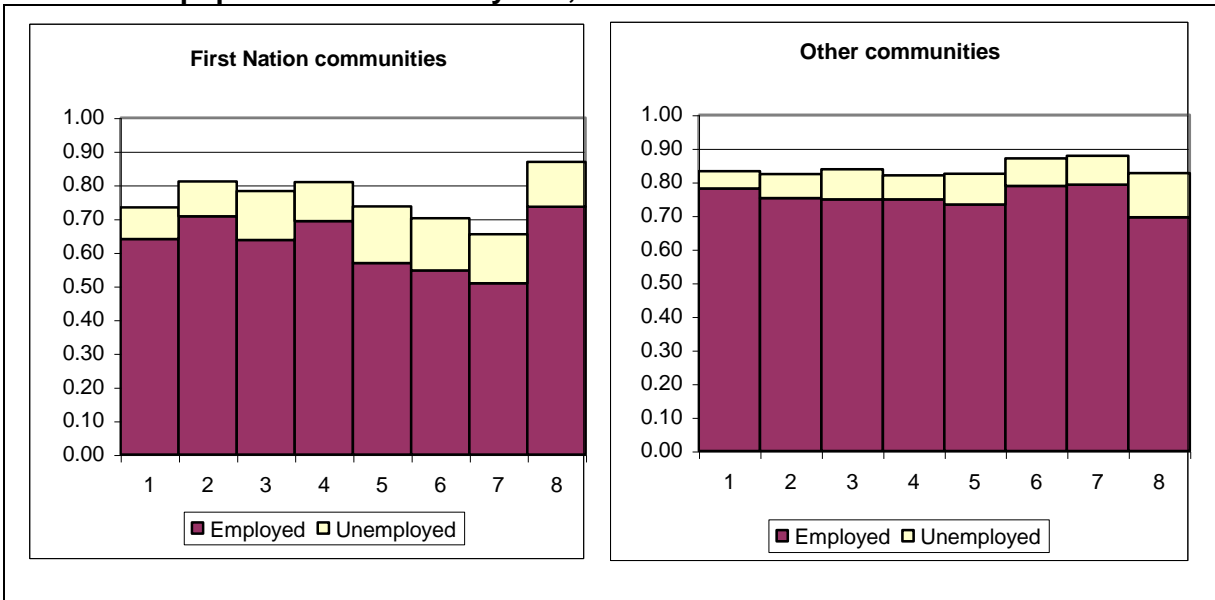
The labour force consists of persons who are employed and persons who are unemployed and looking for work. The labour force as a share of the population of working age (15 to 64 years) is smaller in First Nation communities than in other communities (Figure 1). The labour force participation rate in First Nation communities declines as connection to an urban centre becomes weaker, and quite sharply so, while for other communities, there is no clear gradient in the labour force participation rate among the eight categories.

The share of the working-age population that is employed shows even starker contrasts. The overall average is 57% in First Nations and 76% in other communities (See Appendix Tables A1 and A2 for the numbers behind Figure 1). Among the eight groups of First Nation communities, the average employment ratio ranges from between 63% and 70% in communities that are part of or have a strong connection to a large urban centre to an average level as low as 51% in communities that have no connection to an urban centre. In other communities, the employment ratio averages between 73% and 79% for each type of CSD, a much narrower range of values.

Clearly, for First Nations much more than for other communities, connection to an urban centre is strongly associated with employment. This probably reflects the different origins and population dynamics of the two types of communities. Generally, small communities have an economic reason for their existence, and as discussed in Chapter 2, in Canada that economic reason generally has been access to natural resources. When employment in such communities becomes less plentiful, people move away, and sometimes communities disappear.

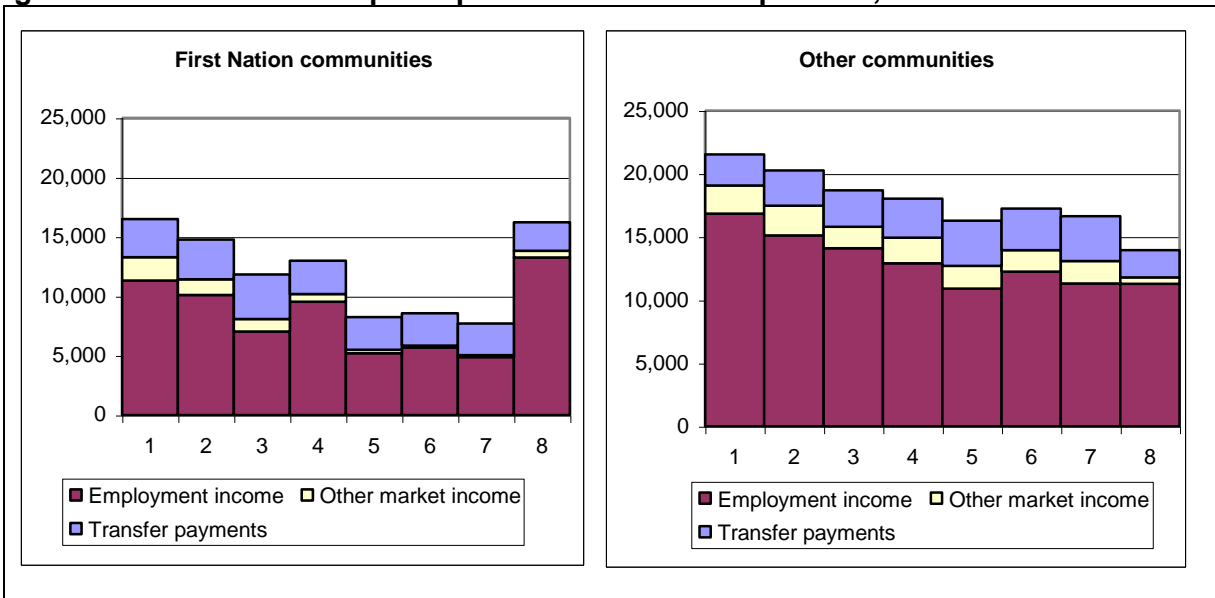
By contrast, First Nation communities are located in the traditional territories, where they lived before the advent of market-driven resource exploitation, and frequently at some distance from such activity, as European settlers claimed this for themselves while First Nations aimed to maintain their way of life. In many of these places there has been little opportunity for other market activity except local consumer services. Some First Nation people have opted to live in the cities, but the option of moving to the cities has been a challenging one for First Nation people.

**Figure 1: The labour force – the employed and the unemployed - as a share of the population of 15 to 64 years, small CSDs**



The north is an exception to the general pattern. In the North, most of the small communities other than First Nations are Inuit communities. Labour force participation and employment are somewhat higher in First Nation communities than Inuit communities in the territories. Interestingly, employment is high in the northern First Nation CSDs compared to other First Nation CSDs.

**Figure 2: Total income per capita and its three components, small CSDs**



Income per capita is much lower in First Nation communities (\$9,634) than in other communities (\$17,228). The difference in average income per person (a gap of 44%) is much greater than the gap in the employment ratio (25%).

In First Nation communities there is quite a steep gradient from urban to rural and remote, with much lower average income in the latter category (Figure 2 and Tables A1 and A2). In part this reflects the difference in employment patterns observed in Figure 1, but income per employed person also is lower in rural and remote First Nations than in urban First Nations.

For other communities as well, income is more unevenly distributed among the different types of communities than is employment. Income from employment and other income are substantially lower in towns and villages that have little or no connection to an urban centre than in CSDs that are part of those centres. The better-paying jobs tend to be in the urban centres where one finds more head offices and employment of highly qualified people in the public and business services sectors and a better-educated labour force. First Nations that are located in or near cities may participate in the high-wage economies of those cities, and they do to varying degrees.

Typically, First Nation communities have more public sector employment than their counterparts, jobs in public administration including community infrastructure (roads, water and utilities and security), education and health care and social services, in part because there are many children but mainly because of self-government. Although these are not necessarily high-paying jobs, they do generate income in the community that other communities lack. The much lower average income in rural and remote First Nation communities than in those that participate in urban economies and in their non-First Nation counterparts thus testifies to the dearth of well-paying private sector jobs.

In Figure 2 as well as Figure 1, the North is an exception to the general pattern for First Nation communities.<sup>5</sup>

To remove the influence of differences in population structure and put differences between sets of communities in stark relief, Figure 3 shows the ratio of employment income per person of working age between First Nation and other CSDs. Employment income per person of working age in First Nation communities is at only 60% of the level found in other small communities. In metropolitan centres First Nation communities reach 75% of the average of other communities, but in rural and remote areas employment income is at only 50% of that of non-First Nation communities, indicating a lack of jobs and of jobs that pay well.

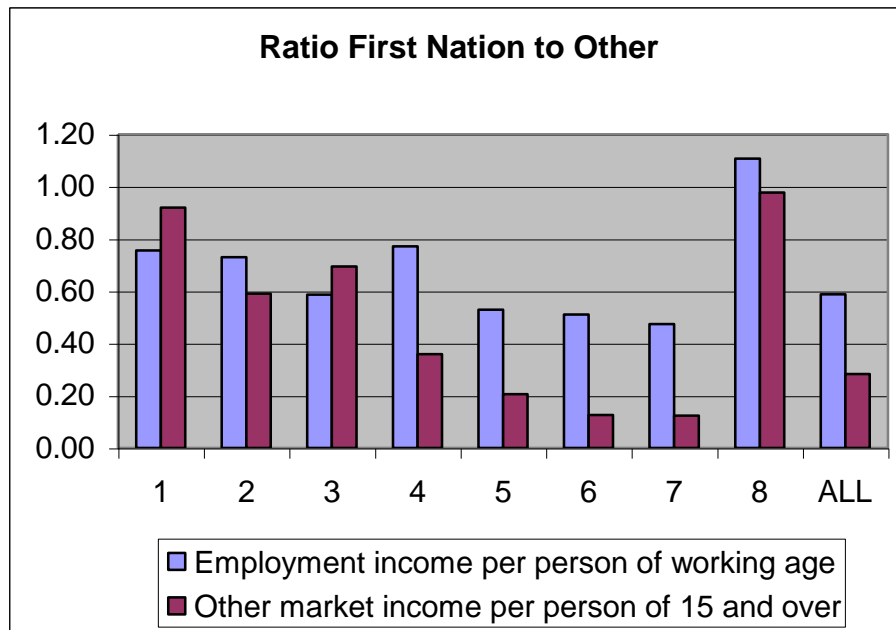
Other market income (investment and pension income) in First Nation communities is only 30% of that in other small villages and towns, a ratio that is even lower than the ratio for income from employment. Residents of rural and remote First Nation CSDs have very little other market income, i.e., less than 10% of that of their counterparts in other small CSDs.

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<sup>5</sup> It would be interesting to explore the reasons for the relatively high employment in northern First Nations. Higher incomes may have to do with the high cost of living.



**Figure 3: Employment income and other market income\*, small CSDs**



\* Other market income consists of investment income and pension income.

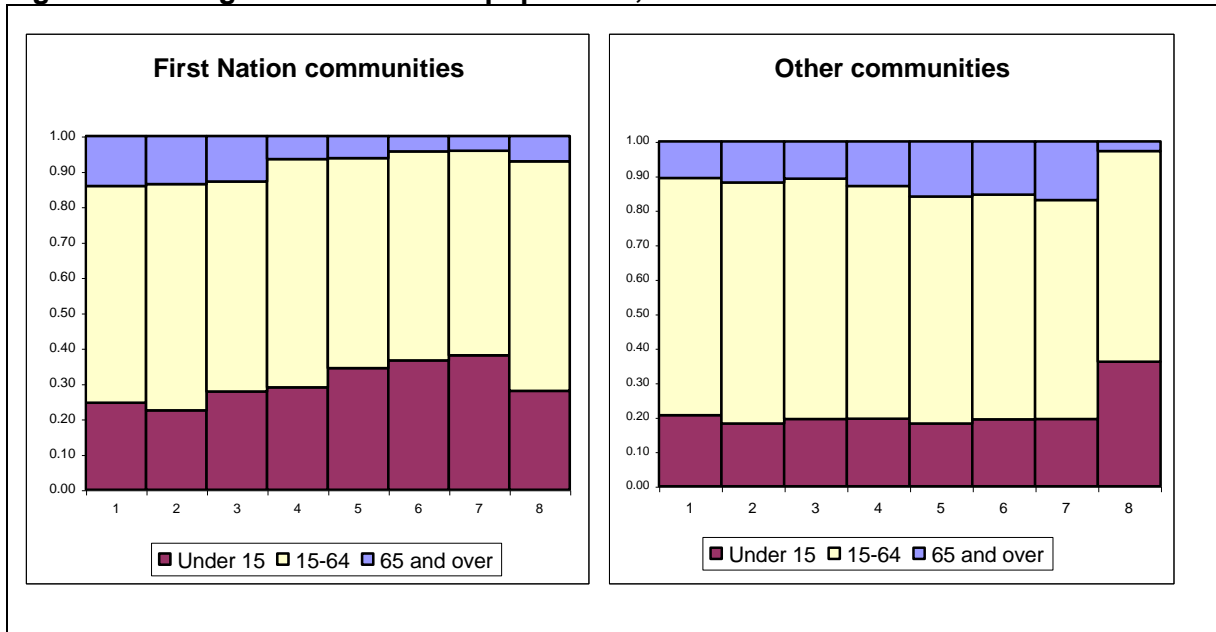
To sum up, when communities are grouped according to their connection to the economy of an urban centre, one finds that employment as a share of the population of working age is fairly constant among different categories of non-First Nation communities. For First Nation communities, the level of employment is closely associated with a community’s ties to an urban centre. Given these employment patterns, the level of income of either type of community is higher the stronger the connection to an urban centre. This reflects the concentration of better jobs in urban centres and the lack of private-sector jobs in and near rural and remote First Nation communities.

**2.2.2 The age structure of the population and transfer payments**

First Nation communities have a much younger, faster-growing population than other communities, with children accounting for a larger share and seniors a smaller share (Figure 4). The population of working age accounts for 60% of the population, compared to 65% in other communities.

Among First Nation communities, there are relatively more children in rural and remote communities than in urban communities, and fewer seniors. The age structure of these rural and remote communities reflects their high birth rate and rapid population growth. In non-First-Nation communities the share of children is rather constant across the different groups of villages and small towns, while rural and remote communities have substantially more seniors than urban communities. In both First Nation and other communities, the population of working age is a smaller share of the total in rural and remote than in urban communities.

**Figure 4: Age structure of the population, small CSDs**



Transfer payment income per capita clearly reflects the age structure of the population, particularly with respect to child benefits (the bottom layer in Figure 5) and seniors’ benefits (the top two layers in Figure 5). Among First Nation communities, total transfer income per capita is high in urban centres and low in rural and remote communities, both absolutely and relative to other communities, where the opposite pattern is found. This is due largely to differences in the size of the population of seniors, as benefits to seniors are relatively large.

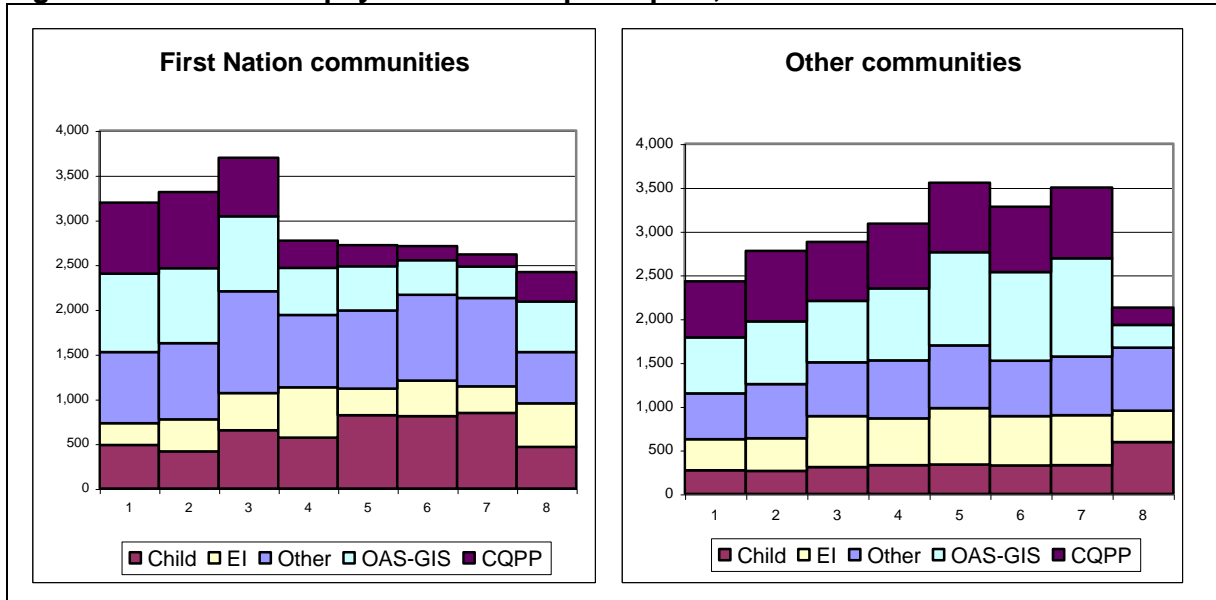
The other two categories of transfer payments shown in Figure 5, Employment Insurance (EI) benefits and “Other government transfers” (OGT) which includes social assistance benefits, are directed not to children and seniors but to families with members of working age. The level of these transfers varies according to labour market conditions and earned income.

First Nation communities have lower EI benefit income and higher OGT than other communities. In the previous section we showed that unemployment is relatively high in First Nation communities, so one might expect to see higher EI benefits. Lower EI benefits indicate that First Nation labour markets are weaker to the point that fewer people qualify for these benefits, or that the unemployed receive low benefits because of low qualifying earnings.

That among First Nations EI benefits are lower in rural and remote communities than in urban communities also reflects a lack of employment and earnings in the rural and remote communities. Non-First-Nation communities show the opposite pattern, with higher EI benefits in rural and remote places than in urban centres. This probably reflects the lower qualification requirements for EI benefits in rural areas that have relatively high unemployment and more seasonal employment. The easier access to EI benefits is also available in many First Nation communities.

Other government transfers include social assistance payments and a variety of other transfers which tend to be associated with low income from other sources. Hence, Other government transfers may be regarded as a measure of economic dependence. It is known from other sources (INAC transfers to First Nations) that social assistance payments are relatively high on reserve. Other government transfers appear to be somewhat higher in rural and remote than in urban places both in First Nation and other communities.

**Figure 5: Transfer payment income per capita\*, small CSDs**



\* Other transfer payment income includes social assistance benefits and a variety of other transfers that tend to be associated with low income from other sources.

**Figure 6: Other transfer payments and Employment Insurance benefits, small CSDs**

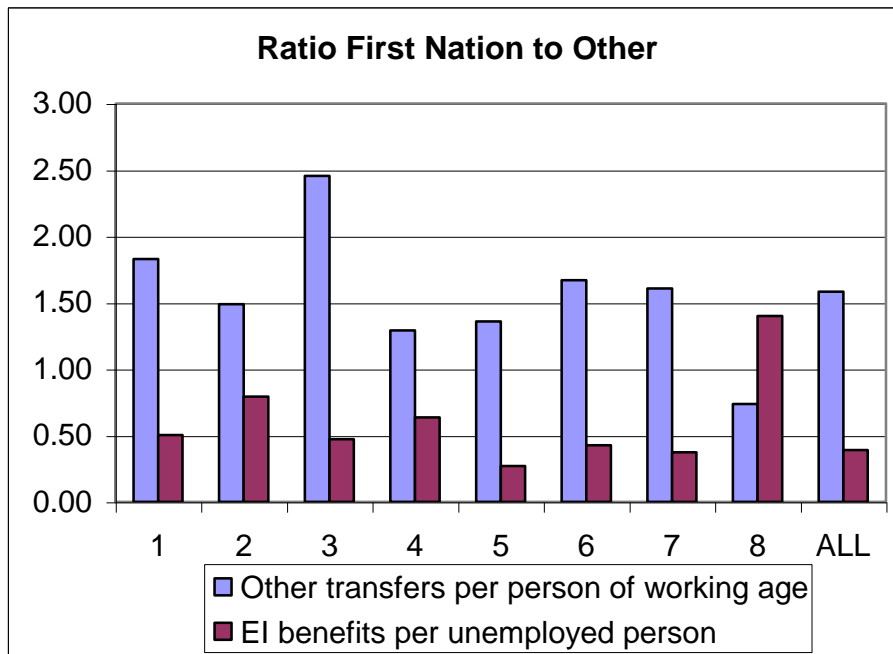


Figure 6 shows the relative levels of transfer payments to people of working age. Other government transfers are relatively high in First Nation communities, probably due to a large extent to high social assistance benefits. By contrast, EI benefits per unemployed person are less than one-half as large in First Nation communities than in other communities. This strongly suggests residents of First Nation communities do not have sufficient employment to qualify for EI benefits, particularly so in rural and remote communities.

To sum up, First Nation communities are more dependent than other communities on transfers from government to persons of working age. They receive less in EI benefits, because there is a lack of employment for people to qualify for such benefits. And they receive more in other transfers from government, reflecting mainly higher social assistance payments but also other transfers that compensate for lack of earned income. This pattern of transfer payments reflects the weakness of the First Nation economies seen in Section 2.2.1.

## 2.3 Earlier studies

We now briefly describe four studies. Two of these probe the extent of underperformance of Aboriginal and First Nation economies. Two other studies explore the nature, opportunities and potential for economic development. All four studies are consistent with and provide further evidence supporting the facts presented in this chapter.

### 2.3.1 INAC's comparable communities study

In line with what has been presented up to this point, some part of the economic disparities between Canadians generally and those living on Indian reserves can be attributed to the size and location of the reserves. In order to estimate this component, Indian and Northern Affairs Canada (INAC) examined a number of economic indicators, drawn from several censuses, for reserves and carefully selected “comparable communities” (INAC 1997). The disparities between the Canadian average and the comparable communities are taken as a measure of the contribution of small size and rural/remote location to the disparities between Canada and Indian reserves.

Using this method, the INAC study found that size and location of communities explains:

- 23% of the male and 38% of the female participation rate gap between Canada and First Nation communities, but no part of the unemployment rate.
- 42% of the gap in average individual total income, and also of the income of those who report employment income as the main source;
- 69% of the difference in the proportion of persons of 15 and over who have attended university, and
- 38% of the difference in the proportion of persons of 15 and over who did not attend high school;
- no part of the gap in self-employment activity and the gap in overcrowding.

Thus, this study found that population size and location explain part of the economic disparities between First Nation communities and the rest of Canada. This part is non-trivial but smaller than one-half, and the larger part of the disparities therefore has other causes.

### 2.3.2 *The Royal Commission's cost of the status quo*

The Royal Commission on Aboriginal Peoples (RCAP) did something entirely different with the standard economic indicators, while also taking account of the geographic features of First Nation economies. RCAP estimated the output gap facing Aboriginal people, i.e., the extent to which production by Aboriginal people falls below Canadian standards, and put it at 0.7% of Canadian GDP in its final report (RCAP 1996).

Based on the 1991 census, RCAP determined that Aboriginal people earned \$4.2 billion from employment in the year 1990, while an equivalent number of Canadians earned \$7.8 billion. The difference derives from three factors: less participation in the labour force, higher unemployment, and lower earnings per employed person. The commission took the Canadian average GDP per capita as the norm for urban and off-reserve Aboriginal people. However, as a measure of the economic potential of First Nation and Inuit communities, the commission took output per capita in non-Aboriginal communities that are similar in size and location to First Nation and Inuit communities. This measure is lower than the Canadian average. Thus, RCAP put potential earnings of Aboriginal people at \$6.9 billion and not \$7.8 billion, and the earnings gap at \$2.7 billion.

RCAP then updated the gap to 1996 and assumed a similar disparity in other income. It concluded that, under the right conditions, Aboriginal people could and would participate more fully in the Canadian economy and produce and earn \$5.8 billion more per year, i.e., 0.7% of GDP at that time. First Nation communities alone, with about 1% of the Canadian population, could contribute 0.3% of GDP more to the Canadian economy if they had employment and income comparable to that of similar non-Aboriginal communities.<sup>6</sup>

RCAP considered the shortfall of economic output a “cost of the status quo”, and argued that better performance was possible if the relationship between Canada and the Aboriginal people in the country would be put on a sound basis. The total cost of the status quo as estimated by RCAP also included extra government expenditures to deal with social and health problems among Aboriginal people and in Aboriginal communities. The total cost of the status quo, according to RCAP, was one per cent of GDP, a cost borne by all Canadians but with the larger part borne by Aboriginal people.

### 2.3.3 *Economic development studies*

For many years, First Nation and other communities have tried to understand the economic challenges and opportunities they face. Some studies take a more analytical, comparative perspective, such as the works referenced in Chapter 1 and the “New Rural Economy” project (Reimer and Trott 1997).

The report entitled *"First Nation Economies: A Comparative Perspective: A Socio-Economic Baseline Study Between Cities and First Nation Communities"* (CMHC 2004b) tries to sort communities by more than the level of the main economic indicators income and employment. It

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<sup>6</sup> INAC also estimated the potential additional contribution of Aboriginal people to economic output (INAC 1990). It's estimate is three times as large, 2.3% of GDP. We regard the RCAP estimate as the best available estimate. A comparison of the two estimates is given in the Appendix.

presents a framework for analysing local economic development consisting of five factors: strength of the connection to larger urban areas, the economic base (number and types of jobs, industrial structure), local capacity, housing, and recent growth. A number of indicators representing these five factors are selected, and cluster analysis is performed on these indicators for some 500 communities (CSDs), one-half of them First Nations, and the other half other communities similar in population size and location. The characteristics of each of ten clusters are then highlighted, and the distributions of First Nation and other communities over the ten clusters is examined.

This study builds on studies of economic and social disparities by Armstrong (2001) and Armstrong and Rogers (1996), but the set of variables is somewhat different and grouping into ten clusters allows for more variety among the clusters than in the earlier work. Thus, clusters are not just defined by the size of disparities. The largest cluster, containing 23 First Nation and 61 mainstream communities, is characterised by integration into an urban environment, with the majority of jobs being outside the community. Another cluster consists mainly of First Nation communities that have links to an urban centre but even so have a weak economic base. Yet another cluster comprises mainstream communities with a weak and declining employment base. The study also draws attention to the fact that in some of the most economically developed First Nation communities the population is predominantly of non-Aboriginal descent.

This approach goes beyond measuring economic disparities toward trying to identify reasons for weak or strong economic development. While only suggestive at this stage of the analysis and data availability, this approach may produce useful insights in future.

#### **2.3.4 Community capacity**

Maxim, White and Beavon (2003) took yet another tack by proposing a Community Capacity Index (CCI). Conceived in the context of a move to greater First Nation control of programs and services, this index is intended to measure the capacity of a community to implement and maintain government programs and services.

Based on their reading of the development literature, the authors propose that the index should measure two dimensions of capacity: human capital and social capital. They develop the human capital component but do not indicate how social capital should be measured. The human capital index of the CCI is the sum of points for four different aspects:

- Population size: 0 points for less than 500, 1 point for 500-999, 2 points for 999-1,999, and 3 points for 2000 and over.
- Age-dependency ratio (population of less than 15 years and of 65 and over divided by the population of 15 to 64): 0 points if 75% or greater, 1 point for 51%-74%, 2 points for 26 to 50, and 3 points for 25 or less.
- Share of the population of 15 to 64 that has post-secondary education: 0 points if less than one-half, 1 point if 50%-64%, 2 points if 65%-74%, and 3 points if 75% or more.
- Occupational diversity (evenness of the distribution of the workforce across occupations): 0 points if the index is less than 70%; 1 point for 70% to 74%, 2 points for 75% to 84%, 3 points for 85% or more.

While designed to measure capacity for program transfer, each of the four elements of the CCI also speaks to the capacity for economic and social development. The standard economic performance indicators are absent from this index, and so it clearly provides a different perspective on communities.

The authors calculate the CCI for First Nation communities, and find that it corresponds to differences in patterns of well-being as measured by Armstrong (2001), with communities in the prairies and the north having both lower capacity and well-being. They also find some correlation between the level of capacity and the financial management status of First Nation communities as determined by INAC from time to time.

## 2.4 Conclusion

The main economic indicators show very sharp contrasts between First Nation communities and other small communities in Canada. Labour force participation, employment and income are quite low in First Nation economies generally, and particularly low in First Nation communities that have little or no economic connection to an urban centre.

By limiting the comparison to small communities and grouping communities by their connection to an urban centre, we make explicit the role of a dominant force in economic development and come closer to comparing like with like. The remaining differences are strikingly large. The Royal Commission has given reasons for these differences, as summarised in Section 2.3.2 above.

RCAP did not rank the various reasons it listed by their importance. For communities that are not close to an urban centre we would suggest that a major reason is a lack of employment in the surrounding area, i.e., a lack of an economic rationale for their existence. Non-First Nation communities far away from cities generally do have an economic reason for their existence: the proximity of some exploitable natural resource. If their economic base fades, another economic base is found or people move away. First Nation communities were not created on this basis, and moving to other places where jobs are available is a great challenge for their residents.

As discussed, several studies have compared First Nation communities with communities that are similar in size and location. The idea is that First Nation communities could aspire to the economic performance of those other communities rather than the Canadian average or that of Canada's cities. This is well and good, but the disparity in economic performance between First Nations and other towns and villages is greater the weaker their connection to an urban centre. Thus, while allowing for differences in economic opportunities between urban and rural and remote areas is meaningful and necessary, it is not clear that First Nation economies can attain the employment and incomes of other communities that are not close to cities. That hinterland communities generally exist because of economic opportunity, while First Nation communities do not, makes any comparison dubious and makes economic development of many First Nation communities a unique challenge.

### 3 Disparities and well-being

This chapter briefly explores well-being in First Nation communities, using the framework developed in Chapter 2 and INAC's Community Well-Being (CWB) Index. Not surprisingly, as economic performance plays a large part in well-being as measured by the CWB, the patterns of well-being among First Nation communities are not very different from the patterns of economic performance presented in Chapter 2.

We begin with an overview of studies of social and economic disparities and measures of well-being. This is followed by a graphical presentation of the values of the CWB and its four components for First Nation and other communities. We also review the relationship between the CWB and dependence on government transfer payments.

#### 3.1 Studies of disparities and well-being

##### 3.1.1 *INAC studies of socio-economic disparities*

In a study based on the 1996 census, Robin Armstrong examined social and economic conditions in First Nation communities (Armstrong 2001). He selected four variables to represent socio-economic well-being:

- Education: the share of the population of 20 to 64 years of age that has less than a grade 9 education;
- Employment: the share of the population of 20 to 64 that was employed during the week prior to the census;
- Income: annual income from all sources for the year 1995 averaged over individuals with income;
- Housing: the mean number of persons per room.

The choice of these variables was based to an extent on an earlier study by Armstrong and Tim Rogers (1996). They applied factor analysis to a range of social and economic indicators for First Nation communities and found crowded housing and lack of a high school education to be components in the first factor, income in the second factor, and the employment rate in the fourth factor, where factors are ordered by their significance in explaining the variation in the indicators among communities. The earlier study also discussed theoretical approaches to the modelling of well-being.

In the 2001 study, Armstrong used cluster analysis to sort First Nation communities into groups, based on the values of the four indicators of well-being. The best statistical result was obtained with three groups: 154 "above average" communities, 213 "typical disparity" communities, and 124 "high disparity" communities. Communities in the above-average group tended to have higher scores for all four components than components in the middle group, and these in turn mostly had higher scores for all four components than high-disparity communities. However, the dividing lines between the three groups are not very distinct. Armstrong examined where communities in the three groups are located, and found that location near an urban centre or a resource-rich area made for better well-being outcomes. Armstrong also found that lower well-being is associated with greater Aboriginal language use and a more rapidly growing population.



Further, Armstrong found that the geographic patterns of socio-economic well-being were much the same in 1986 and 1996. First Nation communities with the most favourable circumstances have more or less the same level of socio-economic well-being as non-aboriginal populations in the poorest regions of Canada. Disparities between First Nations and the non non-aboriginal population are greater in the north than in the south, and greater in the numbered treaty regions than elsewhere.

Clearly, economic performance accounts for a large part of Armstrong's disparities. Employment and income are both present among the four indicators, and employment is the more important one, since earnings from employment account for the lion's share of income.

### 3.1.2 *Measuring well-being*

In the 1990's, the United Nations Development Program (UNDP) set out to measure the enormous disparities between developed and less developed countries. The Human Development Index (HDI) combines three broad dimensions of development and well-being: economic output, education and health, as follows:

- GDP per capita<sup>7</sup>
- Adult literacy (with a weight of 2/3) and gross school enrolment (with a weight of 1/3)
- Life expectancy.

Each component is converted into an index between 0 and 1 by measuring its location on the range of values that occur. Thus, life expectancy ranges from 25 to 85. A level of 55 would make for an index of .50. Income ranges from US \$100 to US \$40,000. School enrolment is used instead of educational attainment because many countries do not have good information about attainment. The HDI has been widely accepted, and UNDP continues to produce it, improve the underlying data, analyse changes over time, apply it to genders separately, etc. That the HDI, with only three components, is simple and covers several major aspects of well-being makes it attractive.

The HDI has spawned a small industry of index building in Canada and elsewhere. Andrew Sharpe and Lars Osberg have tried to capture many aspects of economic well-being, including economic security and inequality. Their Economic Well-Being Index pulls together dozens of indicators (CSLS 2007). Even broader in scope is a project undertaken by the Canadian Index of Well-Being Network, with Roy Romanow as founding chair (CIW 2007). It aims to combine economic, social, individual and community health, and environmental indicators into a single large composite index. A discussion of the conceptual approach is given in Michalos et al (2007). We mention these indexes only in passing, but note that, the larger the number of dimensions of a composite index, the less sensitive it is to change in any area. Even large changes in one or a few components risk being obscured by lack of change elsewhere. Big composite indexes tend to be rather inert. Moreover, these composite indexes often combine cyclical and trend variables, and this makes it difficult to interpret changes over time or different

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<sup>7</sup> To be precise, the natural logarithm of GDP per capita. A logarithm is a mathematical function that transforms a variable so that a doubling of its value, whether large or small, becomes a step increase of the same size. For instance, the series 10, 20, 40, 80 becomes 1a, 2a, 3a, 4a, where a is a constant. Thus, doubling of income in rich countries would increase the income component of the HDI by the same amount as doubling of income in poor countries.

values for different areas. Whether component indexes should be combined by adding or multiplication is also an issue.

INAC has also joined in the enterprise of developing composite indicators. Its endeavours build on both the HDI and the earlier analysis of socio-economic disparities, and have resulted in the Community Well-Being Index (CWB).<sup>8</sup>

The CWB consists of four equally weighted component indexes for education, the labour force, income, and housing:

1. The education index has two elements:
  - (weight: 2/3) “Functional literacy”: the proportion of the population of 15 years and over that has completed at least a grade 9 education.
  - (weight 1/3) “High school plus”: the proportion of the population of 20 years and over that has obtained at least a secondary school education.
2. The labour force index also has two elements:
  - (weight: 1/2) “Labour force participation”: the proportion of the population of 20 years and over that is involved in the labour force.
  - (weight: 1/2) “Employment rate”: the proportion of the labour force of 15 years and over that is employed.
3. Income is represented by the logarithm of per capita income.
4. The housing index has two elements:
  - (weight: 1/2) “Housing quality”: The proportion of dwelling not in need of major repairs.
  - (weight 1/2): “Housing quantity”: The proportion of the population living in dwellings that contain no more than one person per room.

As in the HDI, each element is an index indicating the relative magnitude for the community. Thus, for instance, income ranges from \$2,000 (index value of 0) to \$40,000 (index value of 1), and the maximum labour force participation rate is .8895 (index value of 1).

With four component indexes and seven different indicators, the CWB is not overly large. Most Canadians would probably agree that it incorporates important elements of well-being. The income and education components closely resemble the HDI, and disparities in housing conditions are so large as to warrant inclusion in the index.

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<sup>8</sup> The CWB is presented and applied in papers by McHardy and O’Sullivan (2004), O’Sullivan and McHardy (2004), White and Maxim (2005), Cooke (2005), and O’Sullivan (2006). The papers are available at [http://www.ainc-inac.gc.ca/pr/ra/pub4\\_e.html](http://www.ainc-inac.gc.ca/pr/ra/pub4_e.html).

**Table 2: INAC's Community Well-Being Index for communities and persons, 2001**

	Communities					People		
	First Nation	Other and gap with First Nations				First Nation	Other and gap	
		All		Comparable			Index	Index
	(1)	(2)	(3)	(4)	(5)	(6)		
Index	Index	Gap	Index	Gap	Index	Index	Gap	
CWB	0.650	0.806	<b>0.156</b>	0.805	<b>0.155</b>	0.638	0.860	<b>0.222</b>
Income	0.499	0.727	<b>0.228</b>	0.721	<b>0.222</b>	0.494	0.808	<b>0.314</b>
Educaton	0.692	0.760	<b>0.068</b>	0.788	<b>0.096</b>	0.673	0.844	<b>0.171</b>
Housing	0.712	0.927	<b>0.215</b>	0.893	<b>0.181</b>	0.686	0.946	<b>0.260</b>
Labour Force	0.696	0.808	<b>0.112</b>	0.820	<b>0.124</b>	0.679	0.846	<b>0.167</b>
	(495)	(4,181)		(495)		(504)	(4,181)	

Source: White and Maxim (2005) and calculations by the author.

Some of the findings regarding the CWB are displayed in the left panel of Table 2. Based on the 2001 census, the CWB averaged 0.650 in 495 First Nation communities and 0.806 in 4,181 other communities, for a gap of 0.156. All four components contribute to the overall disparity, with income and housing conditions showing the largest gaps.

White and Maxim (2005) selected a counterpart to each First Nation community based on similarity in size and location. The average CWB and component indexes for these matched or comparable communities are rather similar to those for all non-First-Nation communities. Thus, they concluded, no part of the disparities can be attributed to differences in size and location between First Nation and mainstream communities. This contradicts findings of an earlier INAC study described in Section 2.3.1.

A different perspective is obtained when we explicitly take account of the size of communities. The left panel of Table 2 treats every community (CSD) as an equivalent unit. Among these units are cities like Toronto and Calgary as well as First Nation communities, the largest of which has a population of just over 5,000. If we measure well-being of people rather than communities, by applying population weights when we calculate the average, we obtain the results presented in the right panel of Table 2.

Column 6 of Table 2 is only slightly different from column 1. Thus, for First Nations it matters little whether we average over communities or people. But for other communities, the average values of the CWB and its four components are significantly higher if we average over people (column 7 compared to column 2). The disparities between First Nation people and other Canadians (column 8) are much greater than the disparities between First Nation and other communities (column 3). The CWB gap is 22.2 percentage points for people compared to 15.6 points for communities.

If we were to measure the CWB and its components for people living in comparable communities, by applying population weights, we would find values quite similar to those shown in column 4 of Table 1. This is so because the communities are all small, and weighting by population does not greatly change the CWB and its components for First Nation communities with their small populations. Thus, when we measure disparities among people rather than communities, it makes a difference whether we draw the comparison with all other Canadians or

only with those living in communities comparable to First Nation communities. In other words, the size and location of First Nation communities does account for part of the disparities among people. Small rural and remote communities tend to have lower average income, education levels and labour force and employment ratios than larger urban centres.

White and Maxim also found that the gap between First Nation and other communities is larger for remote communities than for communities closer to urban areas. This is consistent with Armstrong's finding of greater disparities between similar communities in the north than in the south and with our review of local economies in Chapter 2.

O'Sullivan (2006) examined changes in the CWB over time. The index increased significantly for both First Nation and other communities, and the gap between the average scores for the two sets of communities decreased from 21 percentage points to 15 percentage points (Table 3).

First Nations' scores increased for all four components, both in absolute terms and relative to other Canadian communities. The greatest gains occurred in the education component, as the First Nation score increased by 27 percentage points, a larger gain than for the other three components combined. The education gap with other communities decreased by 12 points.<sup>9</sup>

**Table 3**      **Community Well-Being, 1981 to 2001**

	First Nation communities	Other communities	Gap
1981	0.516	0.727	0.211
1991	0.574	0.766	0.192
1996	0.619	0.774	0.155
2001	0.641	0.795	0.154
Number of CSDs	(318)	(3,171)	

O'Sullivan also found that regional differences in the disparity between First Nations and other communities were quite steady over time. The smallest gaps were found in the North and the Atlantic, in large part due to the low scores for non-First-Nation communities in those regions. The greatest disparities were consistently found in the prairie provinces.

### 3.2 The CWB and connection to an urban centre

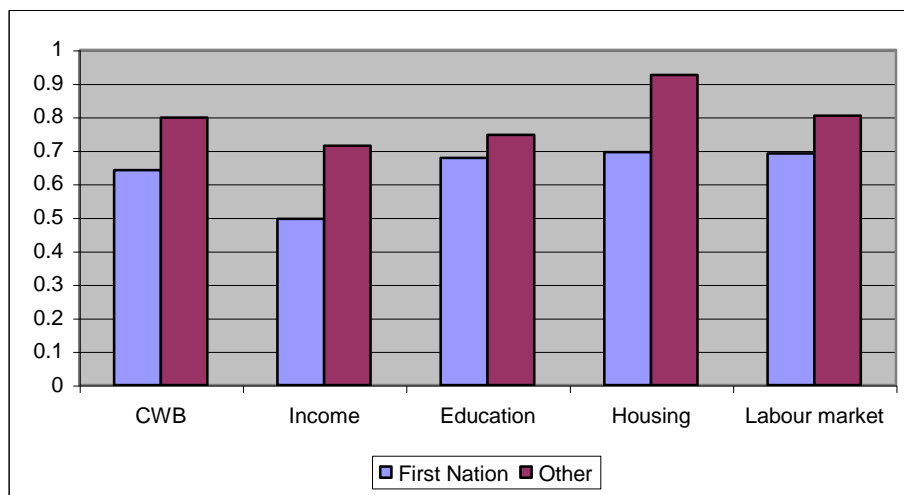
We now examine measured well-being using the same framework as for economic activity and economic self-reliance. The overall comparison between the two sets of communities shows larger disparities in income and housing than in educational attainment and in the labour market (Figure 7). The housing index, measuring crowding and the need for repairs, is quite close to 100% in small non-First-Nation CSDs. The average income index for the same CSDs is less than

<sup>9</sup> Large gains were possible because at the present time very few people stop going to school before they reach high school (grade 9). Given the length of education that is common today, and the requirements of Canada's knowledge-driven economy, a high school diploma may be a more appropriate minimum standard for comparing educational attainment among communities in Canada, while the HDI norm of "some high school" may be appropriate for international comparisons. Even so, as measured by the criterion used, the gains over the twenty years 1981 to 2001 were real gains.

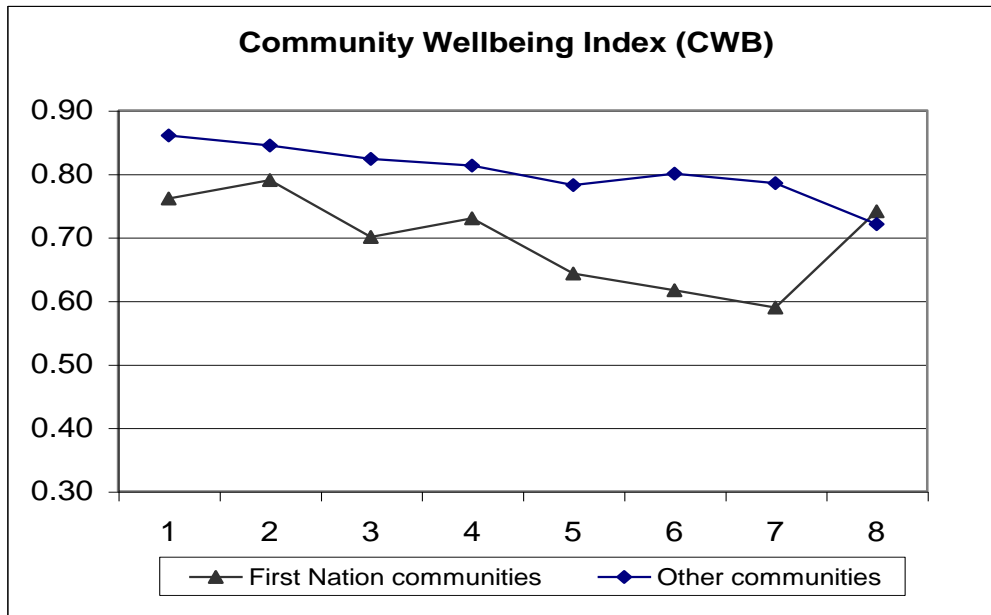
75%, suggesting a wide range of income levels for those communities. As discussed previously, the education index has a narrower range because of the large weight given to whether people attended high school, a rather common thing these days.

By and large, the CWB is higher the stronger the connection of the small CSD to an urban centre, and this is so both for First Nation and other CSDs (Figure 8). As well, with one exception, the index is always lower for First Nations than it is for other communities, and the gap is wider the more remote the communities are from an urban centre. As with employment and income, the North, where First Nation communities are compared with Inuit communities, forms an exception to the general pattern.

**Figure 7: The Community Well-Being Index and its four components, small CSDs**

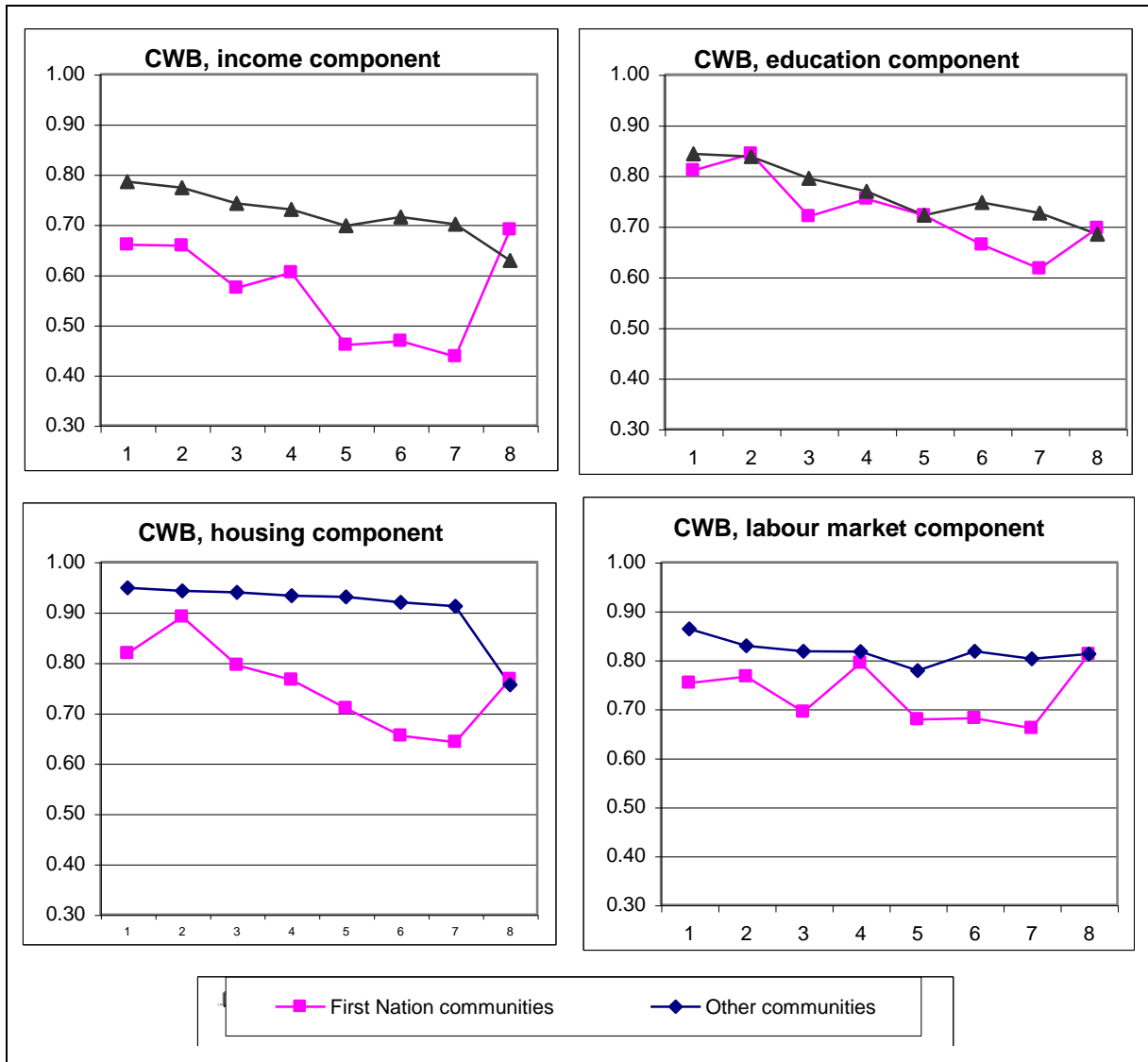


**Figure 8: The Community Well-Being Index, small CSDs**



The four components contribute to the overall pattern in different ways (Figure 9). The largest gaps between First Nation and other communities are found in the income and housing components, and these gaps are particularly large in communities with a moderate to non-existent connection to an urban centre. The education component shows the smallest disparities, and both this and the labour market component have smaller differences in disparities between urban and remote places than the income and housing components.

**Figure 9: The four components of the Community Well-Being Index, communities with a population of less than 5,500**



The results for income and the labour market are consistent with the displays in Chapter 3. If the labour market component of the CWB seems to paint only a small contrast between urban and remote places, this is so because labour force participation accounts for one-half of the component index, and the variation in that indicator among different categories of communities is smaller than the variation in employment and unemployment. In any event, the economic components of the CWB tell much the same story as the economic indicators in Chapter 3.

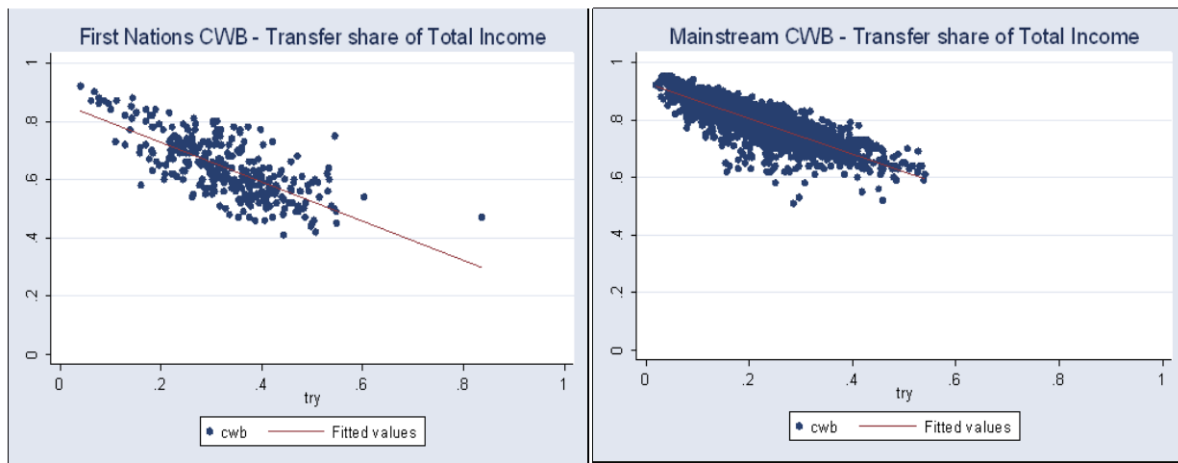
The housing component is similar to the income component, and the education index is consistent with the two economic indexes, but with smaller gaps between First Nation and other communities. As noted earlier, this is because, in line with the United Nations’ HDI, the education index gives a large weight to a low standard that is reached by the large majority of people in all 16 categories of communities.

### 3.3 The CWB and transfer payments

In the final section of this Chapter we briefly examine the relationship between well-being and types of transfer payments – EI benefits and other transfers from government – as a share of total income. As discussed in Chapter 3, these two transfer payments are associated with unemployment and low income, and indicate economic dependence. As well-being is positively associated with the level of economic activity and income, it is reasonable to expect the share of these two transfers in income to be inversely related to well-being.

Overall, this is indeed what we find in a scatter plot of all communities, with the CWB on the vertical axis and the transfer share of income on the horizontal axis (Figure 10). The gradient of this relationship is steeper for First Nation than for other CSDs, reflecting a wider range of values for the CWB.

**Figure 10: The CWB and transfer payments as a share of income, all communities (CSDs)**

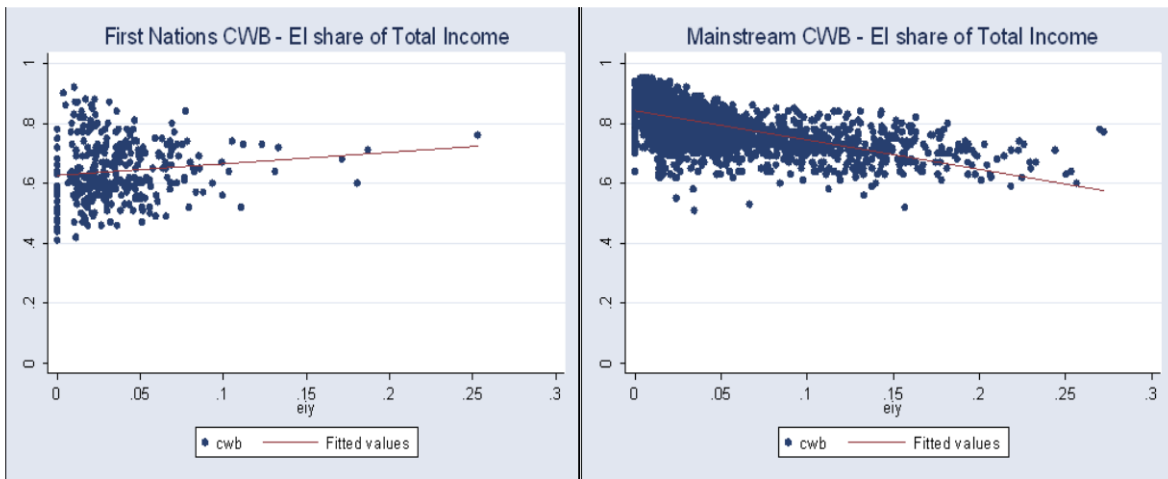


When EI benefits and other transfers from government are considered separately, different patterns emerge. There does not appear to be much of a connection between the EI benefit share of income and community well-being in either set of communities. The regression line in both the left and right panel of Figure 11 is virtually horizontal. Thus, the level of the CWB appears to be unrelated to the EI benefit share of income.

The level of EI benefits depends on labour market conditions, the level of earnings, and the rules of the EI program, and EI benefit as a share of income also depend on population structure and income other than earnings. This is a complex mix, and the end result is not readily explained. It does appear that communities where EI benefits make up a large share of income do not reach the highest levels of the CWB. These communities may have a weak labour market but the unemployed are able to take advantage of the EI program. However, a low CWB does not always mean residents rely heavily on EI benefits. This is probably mainly because they fail to qualify.

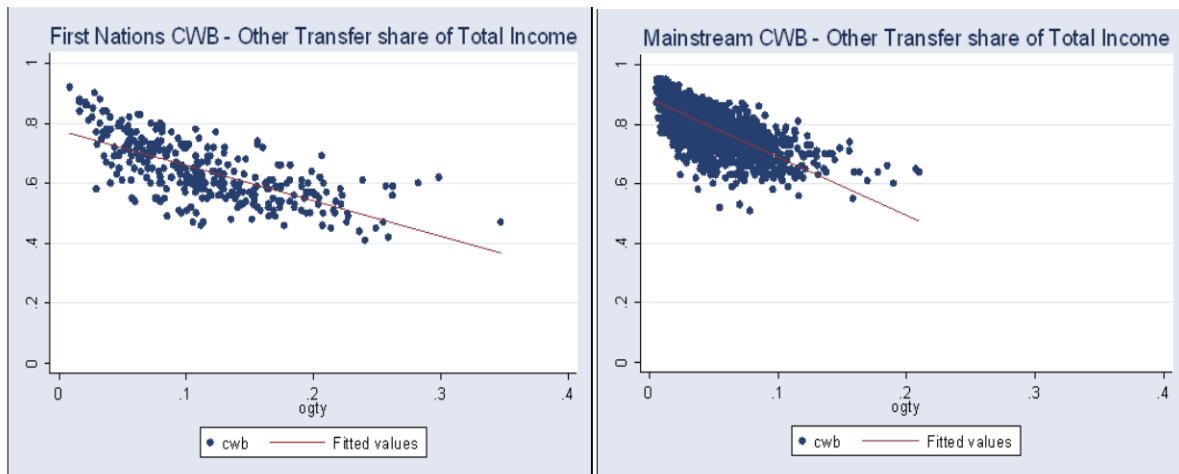


**Figure 11: The CWB and Employment Insurance benefits as a share of income, all communities (CSDs)**



The share of other government transfers in income, a measure of economic dependence, has the expected negative relationship with community well-being (Figure 12). This reflects both the labour market and income components. The less employment there is and the lower incomes are, the more families in communities are dependent on these kinds of transfers. The gradient is steeper in the group of non-First-Nation communities, probably reflecting the fact that, except for just two communities, transfer payments nowhere reach a value in excess of 20% of income. Among First Nations, some 20 have shares in excess of 20% of income.

**Figure 12: The CWB and other transfer payments as a share of income, all communities (CSDs)**



## 4 Economic Self-Reliance of First Nation communities

### 4.1 The concept of economic self-reliance

In this chapter we propose measures of economic self-reliance (ESR) for communities. We believe that such measures may be useful for analysis and economic development policy. We would suggest that the economic development of small, remote First Nations that lack an economic base requires sustained attention and financial support and creative approaches. We hope that measures identify these communities will contribute to a sharper focus on communities facing the greatest economic development challenges.

By economic self-reliance of a community we mean a certain level of economic activity and capacity that makes such activity a major part of the community's normal activities and sense of itself. It is the counterpart at the community level to economic self-reliance of the individual, which we would also describe in those terms. Providing for oneself and one's family is a major part of most people's lives, and is important to how they see themselves and how others view them. In the context of the market economy, earning an income through employment or business activity is the most common way of being economically self-reliant. It also applies at the community level, we would suggest. A community that has an economic base that provides employment and business activity through which people earn a living is an economically self-reliant community.

We could define economic self-reliance at the community level. We could focus on government finances, for instance, and define self-reliance as absence of transfers from other governments. However, we are more interested in economic activity than in government finance. We want to define a level of income or employment in the community that represents economic self-reliance. The challenge is to determine a level that has some intrinsic merit, that is more than just an arbitrary dividing line. It seems to us that we should do this by evaluating the circumstances of the members of the community. This leads us to define economic self-reliance of communities in terms of economic self-reliance of persons in the community.

Broadly speaking, economic self-reliance means earning a living that provides an adequate standard of living for oneself and one's family. We can focus on each aspect of this definition to develop a standard. This leads to a standard reflecting an adequate income, one reflecting sufficient employment to generate such an income, and one that draws a distinction between earnings and transfer payments. In each case we have to consider the situation of the family as the basic social unit that shares income. This is the approach we take.

By dividing families into those that are economically self-reliant and those that are not, we do not divide communities into two groups. Rather, we end up with a ratio for each community: the share of families that are economically self-reliant. This ratio provides a different perspective on economic activity than the familiar measures of income and labour market activity. They do not treat every dollar of income and every hour worked as equivalent, but sort communities by how many families meet a certain standard. They may result in a different ranking of communities that may prove to be of interest.

## 4.2 ESR measures for communities

We propose four ESR standards:

1. ESR1: Employment. A standard based on employment or self-employment. Working for pay is the main way in which the large majority of people provide for themselves and their families. ESR1 represents a reasonable minimum level of work effort.
2. ESR2: Transfers as a share of income or earnings. Use of EI and SA above a certain rate indicates dependence.
3. ESR3 and ESR4: Income levels represent economic independence for a working family. We propose two measures: one based on low-income cut-offs (LICOs), one on the market basket measure of poverty (MBM). We are not measuring poverty, however.

In each case we develop a standard that reflects contemporary societal norms. For instance, an employment standard should reflect today's norm for full-time full-year employment, 1800 hours (48 weeks at 37.5 hours), and not an absolute norm (e.g., 24 hours per day less time for sleep and meals) or the number of hours people worked in the early stages of the industrial era. Moreover, we should set a standard below full-time year-round employment for education, some unpaid leave, members of families being supported by other members, etc. By the same token, we want a standard for transfer income that allows for some use of Employment Insurance (EI) and social assistance (SA) benefits. After all, insurance against the risk of job loss and temporary support for people who have fallen on hard times is a well-established element of the institutional framework supporting the market economy.

We choose the economic family<sup>10</sup> as the unit of measurement because sharing of income and household activities takes place at this level. Extended-family situations may be more common among Aboriginal people than mainstream Canadians and we want to allow for sharing at this level.

### 4.2.1 An ESR measure based on employment

A standard for ESR through employment is elusive. If there is a societal norm for full employment, it is probably that people of working age should be employed full time or attending school full time. However, society makes allowance for childbearing and child rearing, and for retirement before the age of 65 – the average age of retirement is 61.

Consider the rules of social programs (Old Age Security, the Canada Pension Plan, Employment Insurance) as a reflection of what society expects. Forty years of employment between ages 18 and 65 are required for a full CPP pension, but the program has large allowances for education and child-rearing and other absences from the workforce and allows for retirement as early as age 60. The EI program supports people during spells of unemployment and provides maternity and paternity benefits. Further, there is no clear societal consensus about whether a parent of a pre-schooler should be at home or in the workforce. Canada does not have a full-fledged daycare system. EI allows for involuntary spells of unemployment.

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<sup>10</sup> An economic family is a group of people in the same household related by blood marriage or adoption, and includes so-called “extended” families. Only families in private households and private occupied dwellings would be included.

The ESR standard we propose reflects some of these features. We define working age as 15 to 59 years of age. We also allow for one of two parents of a pre-schooler to stay at home. For single parents, complete absence from the workplace is not at all realistic in an ESR context, so they cannot be fully absolved from the work requirement, but we reduce the standard.

We absolve some family members from the employment requirement when there are three or more members of working age, as a way of accommodating sharing within families, e.g., in the case of extended-family arrangements with a grandparent of working age who looks after children or does housework.

Schooling is a necessary preparation for employment and we therefore regard it as equivalent to employment.

As an employment-based standard for economic self-reliance of families of working age we propose:

**ESR1: Employment**

An unattached person (family of one) is ESR1 if

- the person attended school full-time;
- the person worked 40 weeks or more and worked mostly full-time;
- if the person worked 40 weeks or more and worked mostly part-time, or 20 to 40 weeks and mostly full-time.

An economic family is ESR1 if all members of 15-59 years of age meet the ESR standard for unattached persons. Other cases:

- The family consists of a couple (legally married or common-law) and one or more children of 6 years or less. The family is ESR1 if both adults meet the standard or if one worked full-time.
- The family comprises three or four persons of working age. One person does not have to meet the ESR1 standard for unattached individuals.
- The family comprises five or more persons of working age. Two persons do not have to meet the ESR1 standard for unattached individuals.

**4.2.2 An ESR measure based on transfer payments**

Governments transfer income for many reasons. As with the employment standard, let us take ESR to apply to persons and families of working age, and reflect societal norms. Transfers to seniors – Old Age Security, the Guaranteed Income Supplement, and retirement pensions under the Canada Pension Plan – then have nothing to do with ESR, because the recipients are not of working age.

Child benefits are dependent on family income, and the parents whose income the benefits depend on are mostly of working age. High child benefits may indicate a lack of economic independence. However, the primary purpose of the benefits is to assist with the financial burden of child rearing, and they should therefore not be included in an ESR standard.

EI and SA benefits are more clearly related to ESR. EI benefits indicate absence of employment, while SA benefits indicate financial need, often a result of lack of earnings.

EI benefits indicate attachment to the workforce in the recent past as well as absence of employment at present. EI benefits include sickness, maternity and paternity benefits. These do not reflect lack of self-reliance, but make up a modest part of benefits.

An ESR standard based on the presence of EI benefits and other government transfers should set a threshold level. A small amount of EI benefits may indicate a short spell of unemployment between jobs. Many persons and families receive the GST credit or some other small transfer, and this should not be regarded as a lack of ESR.

In the census, SA benefits are not recorded as such, but form part of the residual category “Other government transfers to persons”.

This leads us to define a standard based on transfer payment income as follows:

**ESR2: Transfer income**

An economic family is self-sufficient if the sum of Employment Insurance benefits and other transfers from government is less than one-half of the family’s earnings from paid employment and from self-employment (net farm income plus net non-farm income from professional practice, unincorporated business etc.)

**4.2.3 Two ESR measures based on income adequacy**

Economic self-sufficiency can be taken to mean that a person or family, a household, or a community is able to maintain a decent standard of living without assistance from any other person, household, community or state. Self-Sufficiency Standards (SSS) have been developed and made popular in the U.S. by Diana Pearce among others. Their work was a reaction to poverty standards used in social programming that were seen to be too low to cover basic necessities and to reflect financial autonomy. They aimed to measure the needs of a working family rather than a family on welfare. Typically, the SSS for states is well above the poverty level and may be twice as high.

A working family has greater expenditure needs than a family that is not working. There are three types of expenditures associated with employment:

- Expenditures directly related to employment: travel to the work site, clothes appropriate for the work environment etc.
- Expenditures for goods and services that are purchased instead of being provided by members of the family. Working families may buy more prepared foods or eat out, use cleaning services more, spend more on recreation, etc. Families with children, particularly young children, may need daycare. Of course, families would spend on these items only to the extent that their earnings permit them to do so. However, working families clearly have less time for domestic activities or recreation than non-working families as work takes time, so it is reasonable to allow for less domestic production and more purchases.
- Working families set funds aside to maintain their standard of living or economic independence over time. This takes the form of mandatory contributions for Employment Insurance and the Canada and Quebec Pension Plans and private retirement savings.

Poverty lines are measures of a minimum adequate income. Poverty lines do not explicitly account for costs associated with employment, and among families that have incomes near the LICOs there are many who are not working families. A level of income above but reasonably close to the poverty line could serve as an ESR standard.

We would suggest an allowance for these additional costs of working families in the order of 25% of the poverty line. The cost of maintaining ESR through payroll taxes and voluntary retirement saving may be as high as 10% of earnings. In the year 2000, the EI employee contribution rate was 2.4%, and the CPP rate 3.9% of insurable earnings, and families need to save additional amounts as a buffer against financial risks and for retirement, which we assume to start before age 65. For expenditures directly related to employment, and substitution of purchased services for domestically produced services we suggest a margin of 15%.

We choose the LICO rather than the Low Income Measure (LIM) as the poverty line on which to base our standard, since the LICO differentiates by size of community and family size. The large differences between LICOs for different communities indicate how important it is to differentiate in this way, especially in the context of this paper.

This standard differs from the employment and transfer payment standards in that it does not take into account how the standard is reached. This standard does not require that people work or earn income, only that they reach a certain level of income. The standard is effective because, to reach the level of income it specifies persons and families have to be employed or have investment income or otherwise be economically independent. Transfer payments are not sufficient to reach the level of income corresponding to the ESR standard. The ESR standard is higher than the poverty line, and social assistance combined with child benefits and tax credits may get a family near the poverty line but not the ESR standard. Families and persons receiving significant amounts of SA would not be ESR by this measure.

### **ESR3: LICO-based income standard**

A person or family is ESR3 if income is more than 1.25 times the 2000 pre-tax LICO for that family. The LICO (Low-Income Cut-Off) is a level of income that varies by family size (1, 2, 3, 4, 5, 6, 7 or more) and by size of area of residence (5 categories). There are 35 different values that have to be applied.

Statistics Canada does not produce LICOs for the three Territories and for First Nation CSDs. We propose that the LICO for British Columbia be applied to the Yukon, the LICO for Alberta to the Northwest Territories, and the LICO for Quebec to Nunavut. We would designate Whitehorse, Yellowknife and Iqaluit as urban centres with a population of less than 30,000, and every other CSD in the three Territories as rural. Further, the LICO for each First Nation CSD should be the LICO for the type and size of geographic area the CSD is part of (mostly but not always rural).

The LICO is derived by considering the share of essential expenditures in the total family budget. By contrast, the MBM is based on a basket of goods and services, reflecting completely specified needs of families.

At present, the MBM is available only for a family of four, by province and for specific large cities, and only for the year 2000. Thus, it takes account of differences in different parts of the country but in a different way than the LICO. To apply the MBM to other families one would need to either define a basket of goods and services for those families and price it, or apply scales. As well, to develop a standard for working families one would have to consider specifically which additional goods and services, taxes and contributions to social programs and savings a family would need.

The MBM is relatively higher than the LICO in rural and small-town Canada, because it takes account of high transportation cost (private vehicles) and results in a higher incidence of poverty in those areas relative to the cities.

**ESR4: MBM-based income standard**

A family is ESR4 if its income is equal to or greater than

- X times the MBM (Market Basket Measure) for that family, where X is a number between 1 and 2 that still needs to be determined, or
- an adjusted basket of goods and services reflecting the needs of a working family.

**4.3 Measuring ESR of First Nation communities**

There are differences between First Nation and other communities that reduce the comparability of the different communities:

1. The ESR measures focus on the cash economy and ignore household production, the barter economy and living off the land. There are differences between First Nation and other communities in this regard. However, allowing for differences between rural and urban communities (as in the proposed income-based standards), or for differences in family size and type (as in the proposed employment and income-based standards), we account for a part of these differences.
2. People in First Nations are subject to very different tax and housing regimes and have supplementary medical expenses covered under a federal plan.
3. First Nation communities have a high degree of self-government and jurisdiction compared to mainstream communities of similar size. This means a larger public sector, financed by the federal government.

The first two points suggest that general income-based standards may be too high for First Nation communities. One can argue about the extent of these differences. For instance, on reserve people pay for utilities and to an extent for housing. Also, residence on reserve does not by itself give an exemption from income tax. As well, property taxes in rural areas are generally quite low. As for the third point, the proposed ESR indicators bypass this issue by focusing on ESR at the family level.

All things considered, we are reluctant to make adjustments and thereby set a different standard for First Nation communities. We acknowledge that the standards for economic self-sufficiency we are proposing apply to the wage economy. They measure whether a community attains a minimum level of participation in the wage economy. This is a meaningful norm for any community, including First Nation communities, we would argue.

#### 4.4 Preliminary findings

The four proposed ESR measures are intended for use with census data, so that the ESR status of communities can be monitored every five years. Initial designs were reviewed by Statistics Canada and after some minor adjustments, Statistics Canada confirmed that the indicators as specified, except the MBM-based measure which is not fully developed, can be implemented on the 2001 census. However, doing so would require use of the full census detail, and the cost could not be met within the budget for this paper.<sup>11</sup>

To glean a first impression of what the proposed ESR measures may yield, we have devised some aggregate ESR measures that use data from Statistics Canada's census-based Community Profiles. Data about individual family units is not available in these profiles, and so we have to resort to aggregate measures.

As aggregate ESR measures (AESR) we use the following:

- AESR1a: The 20<sup>th</sup> percentile of the employment rate of the population of 25 years and over. Leaving out the 15-24 year age group limits the extent of school attendance among the population of working age, about which the profiles offer no information, and presence of young children in families that may reduce availability for employment.
- AESR1b: The 20<sup>th</sup> percentile of the employment rate for persons of 15 years and over, adjusted for the incidence of part-time work. We multiply the employment ratio by an index of work intensity. In this index, the share of employed persons who work part-time or part of the year is given a weight of one-half, and the share of those working full-time and all year a weight of one.
- AESR2: The sum of EI benefits and other government transfers per person is less than one half of employment earnings per person.
- AESR3: We derive a weighted average LICO by weighting the LICOs for families of different sizes by the size distribution of families. This is done separately for urban communities (the first category, which is assigned the LICO for urban areas with a population of up to 30,000) and for rural communities (all other categories). Communities with average household income per person in excess of 1.25 times the weighted average LICO are considered economically self-reliant by this measure.

We have not developed an aggregate measure for the MBM-based standard ESR4.

According to the first two of these standards, 80% of communities are considered economically self-reliant. As shown in Figure 13, the share of non-First Nation communities that meets these standards is just slightly higher than 80%. The other two measures give similar results.

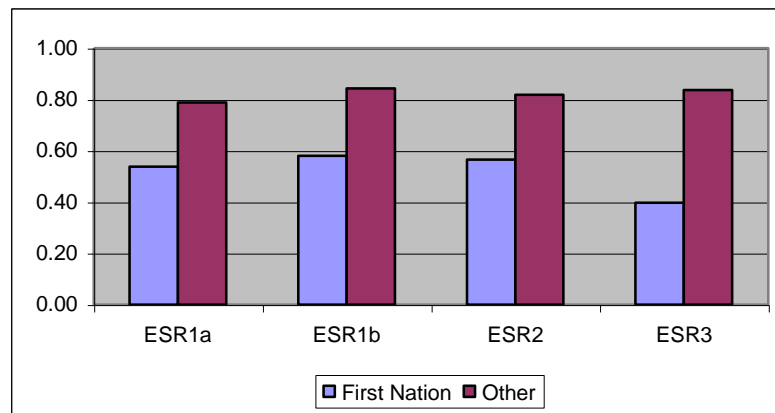
By all four aggregate measures, a much smaller share of First Nation communities is considered economically self-reliant. For the first three measures, the share is between 50% and 60%.

<sup>11</sup> Statistics Canada Advisory Services Central Region: "Cost and time estimate for Statistics Canada customized retrieval", September 4 1997.



Measured by the LICO-based standard, the share of First Nation communities that is economically self-reliant is only 40%. This is consistent with what we showed in Chapter 3, i.e., that the disparities in income are greater than the disparities in employment.

**Figure 13: Aggregate measures of economic self-reliance, small CSDs**



To explore the level of community economic self-reliance by connection to an urban centre, we combine the four aggregate measures into a single measure, using even weights (Figure 14). For non-First Nation communities, a stark contrast emerges between the one in ten communities that has no connection to an urban centre and all other communities. Only just over 60% of remote communities without a connection to an urban centre (category 7) meets the AESR norm; of all other groups of non-First-Nation communities at least 80% are self-reliant by this measure.

For First Nations the pattern is more erratic. The highest rates of ESR are found in category 4, strong connection to an urban centre, the North, and category 2, communities in large urban agglomerations. More than 60% of First Nations in metropolitan areas are ESR. Only about one-half of First Nation communities in each of the other four categories reach the minimum level of economic self-reliance, and the share of communities that are ESR does not vary systematically with the strength of the connection to an urban centre.

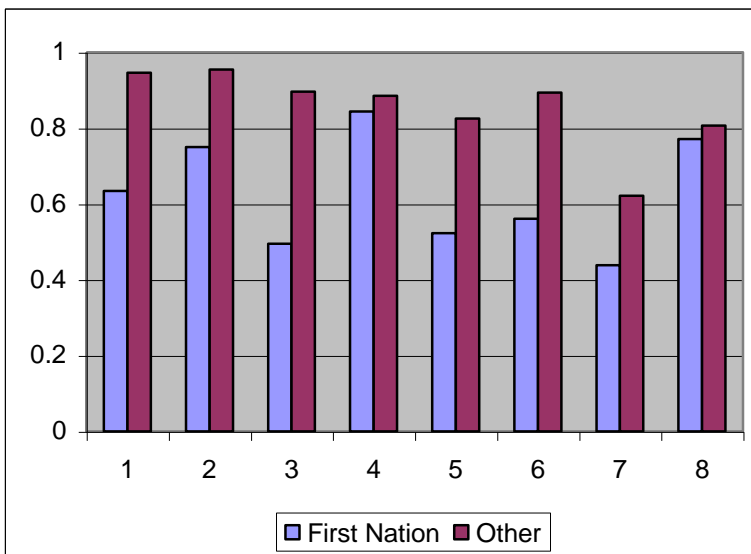
Separately considered, the four aggregate ESR measures each show different patterns for First Nation communities while being rather consistent with respect to other towns and villages (Figure 15). For the latter, the employment-based measures show a gradual decline in self-reliance as connection to an urban centre weakens. The income-based measures produce a radically different outcome for remote communities that showed in the composite index in Figure 14. Thus, high dependence on transfer payments and low earned income characterise many remote communities.

For First Nations, the various measures give different levels and patterns, particularly for categories 5 and 6, communities with a moderate or weak connection to an urban centre. Measured by transfer payments relative to earnings, most of these communities (80%) are self-reliant, but measured by employment the majority falls short of the norm for self-reliance.

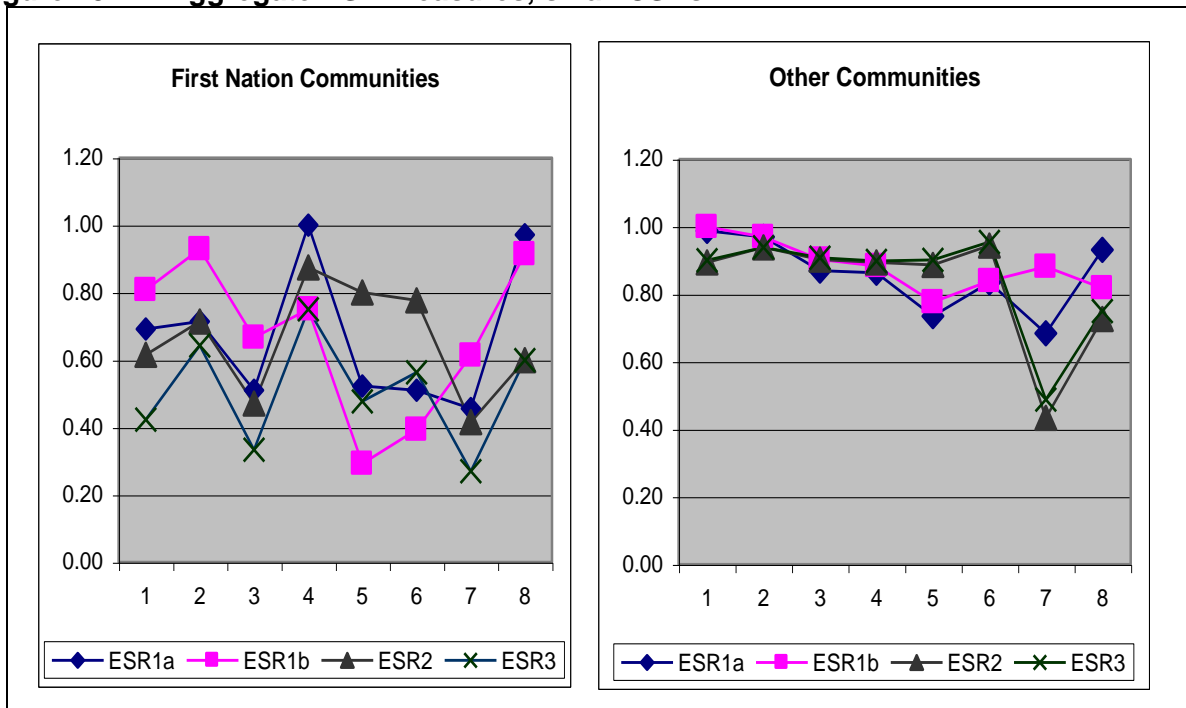
On the whole, the employment-based measures give the clearest signal that communities without a strong connection to an urban centre are less likely to have attained a minimum level of economic development. Measured by income and transfer payments, the remote communities without any link to an urban centre stand out as lacking in economic self-reliance.

These findings confirm that connection to an urban centre is a critical factor for economic development. All measures demonstrate that many First Nation communities are lacking in economic development.

**Figure 14: Composite aggregate ESR measure, small CSDs**



**Figure 15: Aggregate ESR measures, small CSDs**



#### 4.5 Conclusion

To make the idea of an adequate economic base or lack thereof operational, we developed, in this chapter, measures of economic self-reliance for communities and tested aggregate forms of such measures. We found that many First Nation communities do not reach these standards of economic self-reliance, particularly communities with a weak or non-existent link to an urban centre. Even some communities that are located in or near an urban centre and participate fully in the economy of that centre do not attain economic self-reliance.

Much remains to be explored with respect to economic self-reliance of First Nation communities. Further analysis may enhance understanding of the economic challenges facing First Nations. Some questions for further research:

- What is the relationship between geographic distance from an urban centre and the SAC classification of degree of participation in the economic activity of an urban centre? Many small communities may be too remote from an urban centre for participation to be a realistic possibility. On the other hand, some small communities may not fully participate in a nearby urban labour market.
- What characteristics are most associated with ESR status, for First Nation and other communities, and by strength of connection to an urban centre?
- How are measured well-being and local capacity related to ESR status?

## 5 Conclusion

The economies of First Nation communities do not generate the same levels of employment and income as those of other communities. This is due, in large part, to the small size and remoteness of many First Nation communities, which makes it very difficult for them to participate in the dynamic economic activity of urban centres. We also find that the economic disparities between First Nation and other communities increase as one moves from communities connected to an urban centre to those that are not. The pattern of community well-being, as measured by the Community Well-Being Index, is very similar to this pattern of economic performance.

In our view, these patterns reflect the exclusion of many First Nation communities from the larger economy that was noted by RCAP. In particular, many rural and remote First Nation communities have quite a weak economic base. There is no economic reason for their existence, while other communities generally would not come into being without an economic base and would decline and even disappear if their economic base falls away.

First Nations that lack a connection to an urban centre, and are otherwise not advantaged by proximity to an exploitable natural resource or some other significant economic asset, face special economic development challenges. In a recent report, the Senate Committee on Aboriginal Affairs discussed these challenges.<sup>12</sup> The committee pointed in three directions:

- Small communities should work together to pursue common economic development objectives. The Committee referred to the Meadow Lake Tribal Council, the Athabasca tribal Council, the Okanagan Nation Alliance, and British Columbia's Coastal First Nations as examples.
- Remote First Nations should have an urban strategy. The Cape Breton Membertou First Nation established an office in Halifax to work towards joint ventures with major corporations, in the belief that they could be more successful if they approached possible partners on their home base instead of asking them to come to Sydney and the community. Other examples are found in Saskatchewan and Manitoba, where First Nations used money from specific land claims to buy urban properties like commercial centres and hotels.
- Basic infrastructure is still lacking in many communities, in spite of significant investments in recent years. The Committee recommended that the government undertake to close the infrastructure gap in ten years, and that commercial and industrial infrastructure be funded as well.

Of these directions, the notion of an urban strategy for First Nations fits well with the perspective taken and the facts shown in this paper. Working together to overcome size limitations and investing in infrastructure are constructive ideas, and improving the level of education also is a way to make progress, as it has been so often in so many places. We hope that this paper and further analysis of economic self-reliance will contribute to a sharper focus on the challenge of economic development of small, remote First Nations and more and sustained action to meet that challenge.

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<sup>12</sup> "Part VII: Location, Size and Infrastructure", in *Sharing Canada's Prosperity – A Hand Up not A Hand Out*, Senate Standing Committee on Aboriginal Affairs, March 2006.

Further analysis of economic self-reliance could focus on the characteristics of a community that are most closely associated with whether the community is economically self-reliant or not. A further question is whether these characteristics vary with the strength of the connection to an urban centre. Answers to these questions may point to the necessary conditions and challenges associated with development of various kinds of First Nation economies. In this analysis, the ESR measures proposed in this paper are an analytical tool that, we would suggest, should be used in further analysis rather than be an object of study in itself.

The nature of the link to urban centres is of interest, too. The analysis in this paper is based on the intensity of commuting to work in an urban centre. This is an important economic link, but it is not the only one. Examining various other ways in which First Nation communities participate in urban economies may provide ideas for economic development, in particular for remote communities.

## 6 References

Alasia, Alessandro (2004). "Mapping the socio-economic diversity of rural Canada". *Rural and Small Town Canada Analysis Bulletin* 5(2), Statistics Canada Catalogue No. 21-006-XIE, March.

Armstrong, Robin and Tim Rogers (1996). "A First Nations Typology. Patterns of Socio-Economic Well-being", Research and Analysis Directorate, Indian and Northern Affairs Canada, March.

Armstrong, Robin P. (2001). "The Geographical Patterns of Socio-Economic Well-being of First Nations Communities in Canada", Agricultural and Rural Working Paper Series N0. 46, Statistics Canada Catalogue no. 21-601-MIE2001046, March.

CIW (2007). "Canadian Index of Wellbeing", <http://www.atkinsonfoundation.ca/ciw>.

CSLS (2007). "Index of Economic Wellbeing, Current Database for OECD Countries", Centre for the Study of Living Standards, [www.csls.ca](http://www.csls.ca).

CMHC (2004). "First Nation Economies; A Comparative Perspective. A socio-economic baseline study between cities and First Nation communities. Canada Mortgage and Housing Corporation.

Cooke, Martin (2005). "The First Nations Community Well-Being Index (CWB): A Conceptual Review." Indian and Northern Affairs Canada, Cat. No. R2-400/2005E.

Cooke, Martin, Daniel Beavon and Mindy McHardy (2004). "Measuring the Well-Being of Aboriginal People: An Application of the United Nations' Human Development Index to Registered Indians in Canada, 1981-2001." Indian and Northern Affairs Canada, Cat. No. R2-345/2001E.

Devlin, Russ (1995). "Techniques for Analysing the Determinants of Economic Health in Regional Economies." University of Minnesota, 1995.

Disparity in Well-Being Between First Nations and Other Canadian Communities Over Time." Indian and Northern Affairs Canada, Cat. No. R2-349/2004E.

Elias, Peter Douglas (1991). *Development of Aboriginal People's Communities* Captus Press.

INAC (1997). "Socio-Economic Indicators in Indian Reserves and Comparable Communities, 1971-1991", Information Quality and Research Directorate, Indian and Northern Affairs Canada, Cat. No. R32-181/1991E.

Higgins, Benjamin and Donald J. Savoie (1997). *Regional Development Theories & Their Application* Transaction Publishers, New Jersey.

Jacobs, Jane: *The Economy of Cities*, 1970.

Markusen, Ann, Yong Sook Lee and Sean DiGiovanna, editors (1999). *Second Tier Cities, Rapid Growth beyond the Metropolis*.

Maxim, Paul S. And Jerry P. White (2003). "Toward an Index of Community Capacity: Predicting Community Potential for Successful Program Transfer", Chapter 10 in Jerry P. White, Paul S. Maxim, and Dan Beavon: *Aboriginal Conditions. Research as a Foundation for Public Policy*, UBC Press, Vancouver.

McHardy, Mindy and Erin O'Sullivan (2004). "First Nations Community Well-Being in Canada: The Community Well-Being Index (CWB), 2001." Indian and Northern Affairs Canada, Cat. No. R2-344/2001E.

Michalos, Alex C, Andrew Sharp and Nazim Mhajarine (2007). "An Approach to a Canadian Index of Wellbeing".

O'Sullivan, Erin (2006). "The Community Well-Being (CWB) Index: Well-Being in First Nations Communities, 1981-2001 and into the Future." Indian and Northern Affairs Canada, Cat. No. R2-441/2006E.

O'Sullivan, Erin and Mindy McHardy (2004). "The Community Well-Being (CWB) Index:

Porter, M. E. (1998). *The Competitive Advantage of Nations*. New York: Free Press, 1990. (Republished with a new introduction, 1998.)

RCAP (1996). "Economic Disparities, Government Expenditures and the Cost of the Status Quo", Chapter 2 in Volume 5: *Renewal: A Twenty-Year Commitment, Report of the Royal Commission on Aboriginal Peoples*, Minister of Supply and Services Canada 1996:

Reimer, Bill and Chris Trott (1997). "Economic Integration and Isolation of First Nation Communities. Report I: An Exploratory Review", for the Canadian Rural Restructuring Foundation.

Senate Standing Committee on Aboriginal Affairs: *Sharing Canada's Prosperity – A Hand Up not A Hand Out*, March 2006.

White, Jerry P. and Paul S. Maxim (2005). "Community Well-being: A Comparable Communities Analysis." Indian and Northern Affairs Canada, Cat. No. R2-419/2005E.

## 7 Appendixes

### 7.1 A perspective on economic development

#### 7.1.1 *Drivers of regional and local economic development*<sup>13</sup>

The history of the development of Canada after contact with Europe is well described by the “staples theory” of Harold Innis, who saw settlement of Canada resulting from an abundance of natural resources that were in demand in the world. Communities developed in agricultural regions and around sawmills, pulp and paper plants and mines. Gateways to the hinterland grew into towns and cities.

In the latter part of the 20<sup>th</sup> century, with only modest trend growth in world demand for most resource products, and intense competition from producers in other countries, natural resources were not the engine of growth they were when Canada was a frontier society. In the early years of the 21<sup>st</sup> century, world demand for natural resources has strengthened due to rapid economic growth in Asia, and supplies of oil and gas are constrained. Indeed, as the Canadian dollar hovers near parity with its U.S. counterpart, it seems that natural resources, particularly oil and gas, are once again the major economic driving force. However, only communities and regions endowed with resources that are in demand are positively impacted. The majority of regions and smaller communities in the country is not.

For the most part, the regions of Canada have to look to other sources of economic growth. As Higgins and Savoie (1997) put it, the challenge of economic development for Canada is to transform the economy from exploitation of natural resources to exploitation of new technologies and development of new products and services, i.e., from a natural-resource-based to a human-resource-based economy.<sup>14</sup> Economic development that is not resource-based is governed by forces described by Michael Porter, Ann Markusen and Jane Jacobs, among others.

In his book “The Competitive Advantage of Nations” (1990), Porter argues that industrial “clusters”, i.e., groups of related sectors concentrated in a region may generate a competitive advantage for the region and a leading role in world markets. The basic factors that have determined location of industry for so long – a ready source of energy, literate workers, and so on – are now available anywhere in the world. A region’s success in the modern economy increasingly depends on factor conditions that are man-made, specialised and the result of long-term investments. Examples include workers with uncommon expertise and research institutions specialising in key technologies – specialised human resources of high quality.<sup>15</sup>

Ann Markusen’s profit cycle theory focuses on the life cycle of industries, consisting of birth, growth, stagnation and decline. The location of industrial activity depends on the stage of development of the industry. In the early stages of development of new products, an industry is

<sup>13</sup> Sections 2.1 and 2.2 draw heavily on a review of economic development theory found in CMHC (2004).

<sup>14</sup> Higgins and Savoie (1997), Chapter 2: “Geography, Culture and Regional Development”. The authors note that the need for a leap from natural-resource-based to human-resource-based growth may arise when there are still significant natural resources left to exploit (p.22).

<sup>15</sup> Russ Devlin (1995), p.4. The descriptions of Porter’s and Markusen’s approaches in this section are based on Devlin’s summary.



necessarily concentrated in one or a few areas. Chance plays a large role in determining these areas, although regions can enhance their chance of harbouring a new industry by creating favourable conditions.

During the “super profit” stage, the industry, protected by patents and with limited competition may grow fast, with only a few regions sharing in these gains. As related firms gather to the regions where the super-profit industry is located, the industry is likely to remain highly concentrated geographically and the regions where it is located experience very rapid growth. As the industry matures, competition increases, substitute products are developed, and success depends more on cost of production. Firms would then locate in lower-cost areas or close to large markets. At some point, growth levels off and decline may set in. Many countries and regions are vying to be the place where industries are born, as success at this brings high incomes and rapid growth. This is also known as the “first mover advantage”.

The idea, inherent in the works of Porter and Markusen, that size and concentration of population make a difference has been a main theme of regional economic development theory and practice. Larger size allows for more diversity of economic activity, certain efficiencies, and cross-fertilisation, known in economic science as agglomeration economies. Urban size is also regarded as a determinant of economic growth. Jane Jacobs, for instance, regards cities as the locus of innovation and hence the source of economic growth. More specifically, she sees import replacement as the engine that can generate explosive growth. Synergy and invention result from the interaction of all kinds of economic activity in close proximity. They can only take place on a sufficient scale within cities, as Jane Jacobs sees it.<sup>16</sup>

Persistent differences in average income among Canada’s regions are consistent with the idea that a small population and lack of a large city are a disadvantage with respect to productivity and the level of employment. This insight has led governments to make efforts to concentrate development in “growth poles”, by, among other things, attracting “footloose industries”. These methods have not met with lasting success. Economic development efforts then turned to community economic development, meaning stimulating small business development, developing local talent and building local capacity. Today, local, regional and provincial governments commit significant resources to this form of economic development. Federal regional economic development agencies<sup>17</sup> support and supplement this effort. There exists quite a large network of community development corporations engaged in small business development and financing, management training and local economic planning.

In spite of such considerable efforts by governments, smaller rural and remote communities have generally not fared well in the last quarter of the 20<sup>th</sup> century, as noted in the study by Higgins and Savoie mentioned earlier. In agricultural areas, small communities have declined and disappeared as farming required ever fewer workers, the family farm made way for farming corporations, and distance became less important. Similarly, mechanisation and automation reduced the amount of local labour involved in mining and forestry and often replaced it with

<sup>16</sup> Jane Jacobs: *The Economy of Cities*, 1970. See in particular Chapter 5: “Explosive City Growth”.

<sup>17</sup> The Atlantic Canada Opportunities Agency (ACOA), Canada Economic Development for Quebec Regions, Federal Economic Development Initiative in Northern Ontario (FedNor), and Western Economic Diversification Canada.

highly trained operators brought in from urban centres. Provinces struggle to define rural strategies to maintain and bolster some rural and remote communities amidst the general decline.

To sum up, although natural resources are once again a major economic driving force, many of Canada's regions and communities are not positively impacted by this trend. Their economic future is tied to the dynamism of Canada's urban centres. Sharing in the growth generated in the modern urban economy is an essential ingredient for economic success of smaller communities.

### **7.1.2 Additional factors in First Nation communities**

First Nations, on the whole, did not participate in the natural-resource-driven economic development of Canada. As well, they are not fully participating in contemporary urban-driven economic growth, as many are not close to an urban centre. The economic performance of First Nation communities, however, is even weaker than one would expect based on these factors. The Royal Commission on Aboriginal Peoples (RCAP 1996) attributes this primarily to historical exclusion and institutional factors.

RCAP devotes a large chapter of its report to economic development. The chapter deals with all Aboriginal communities and Aboriginal people living in urban areas, and finds that reserves stand out as the poorest and least developed communities. RCAP's main points:

- The economic history of Aboriginal communities is a history of failure caused by intervention by non-Aboriginals. Examples are given of intervention intended to limit competition by Aboriginal people with settlers. There are also legal impediments to economic development owing to the fact that property on reserve cannot be pledged as security for loans.
- The roots of dependence lie in various disruptions: relocations, the introduction of welfare payments designed for urban environments, use of reserve and hunting/gathering areas by mining and forestry companies, restructuring of the fisheries that reduced Aboriginal participation. Dependence is evident in the reliance on social assistance and on public sector jobs.
- The collectivity is important on reserve. There is a tradition of sharing the fruits of labour and the harvest within the extended family and the community.
- In remote areas and especially in the north, income in kind, derived from hunting and gathering, is an important part of economic activity.
- Economic success requires good governance. Self-government is seen by RCAP as a vital part of the answer to the challenge of economic development. U.S. research has demonstrated the important role played by band governments.
- Many Aboriginal communities are isolated, with little employment in the surrounding area.
- Many reserves are located in regions that are in economic decline. In the north, everything is subsidised, both in Aboriginal and non-aboriginal settlements: infrastructure, exploration, and tourism.

We would add to this that there is a high incidence of physical and mental health problems in First Nation communities. This includes physical injuries, addictions to alcohol and drugs, foetal alcohol syndrome, as well as social problems like family violence. RCAP reports on these

matters, but does not explicitly link these to economic development<sup>18</sup>. However, the availability and readiness of the adult population for employment is affected by the incidence of health and social problems.

Further, lack of economic development can undermine the capacity to participate in such development. Widespread dependence on income transfers, low levels of education, and the presence of many teenage mothers and single-parent families make it more difficult to take advantage of economic opportunities that may present themselves from time to time. To break out of an entrenched pattern of poverty, there is a need for both sustained economic opportunity and sustained efforts to prepare the community to capitalise on those opportunities.

## 7.2 Approaches to Assessing Self-Sufficiency in the U.S.

To determine how much income is actually necessary for families to meet their basic needs, several alternative measures of income adequacy have been developed.

**Variations of the Federal Poverty Measure.** In the research community, for instance, labor economists and researchers of welfare programs have used a measure of low-income status defined as 200 percent of the federal poverty level. Many federal and state work-support programs (e.g., Food Stamps, Medicaid, and childcare assistance) use a multiple of the federal poverty level to determine program eligibility. For example, the federal government provides Food Stamps to families at or below 130 percent of the federal poverty level.

**Lower Living Standard Income Level.** In the workforce development community, the responsibility of defining self-sufficiency under the Workforce Investment Act is assigned to states and local Workforce Investment Boards, but the Department of Labor uses a minimum standard called the Lower Living Standard Income Level (LLSIL), which is a poverty measure created by the Bureau of Labor Statistics. Updated annually using the Consumer Price Index (CPI), the LLSIL uses a basic family budget approach to produce an LLSIL for major geographic and metropolitan areas. While higher than the federal poverty threshold, it does not include all basic expenses such as child care.

**The Self-Sufficiency Standard.** In 1995, Wider Opportunities for Women (WOW) and Dr. Diana Pearce established the Self-Sufficiency Standard, which measures how much income working families need to meet their basic costs without public or private assistance. The Standard is a “bare-bones” budget that includes all of the costs faced by working families: housing, child care, food, health care, transportation, and taxes. It is calculated on a county-by-county basis for 70 different family types in each county. Through WOW’s national Family Economic Self-Sufficiency (FESS) Project, 35 states and the District of Columbia have

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<sup>18</sup> RCAP reviews the evidence in Volume 3, “Gathering Strength” of its report. For instance, family violence is mentioned as a social problem by 44 per cent of the on-reserve population (Chapter 2 “The Family”, page 59). One third of deaths of Registered Indian men are due to injuries including accidents, suicides and homicides. In the total male population the rate is less than 10 per cent (Chapter 3 “Health and Healing, page 122). This suggests that non-lethal injury is also more common among Aboriginal people. Thirty-one per cent of Aboriginal people have some form of disability, more than twice the national average (page 148). The evidence on alcohol abuse, however, is called “contradictory” (page 159). RCAP finds that a majority of studies point to disproportionate rates of social and community ill health among Aboriginal people (page 122).

developed and implemented the Self-Sufficiency Standard to improve programs and policies for low-income working families.

**Basic Family Budgets.** Others also have developed new measures or indices of income adequacy that take into account different costs associated with raising a family—besides food expenditures—and address regional variation in the cost of living. One such effort was led by the Economic Policy Institute in Washington, D.C., and involved the creation of a series of basic family budgets. Housing, childcare, health care, food, and transportation expenses included along with taxes when developing budgets. In addition, family composition and family residence are taken into account.

**ROMA Self-Sufficiency Standard.** The national Results-Oriented Management and Accountability (ROMA) guidelines were established in 1994 for grantees of the Community Services Block Grant. These guidelines required measurement of specific goals and outcomes among Community Action Agencies.

Source: “A RESOURCE GUIDE for Community Action Agencies and Other Community-Based Organizations in Massachusetts: Establishing Effective Workforce Development Programs”, MassCAP (as found in TentWiki).

### 7.3 A comparison of two estimates of the economic gap

As noted in the main text, both RCAP and INAC have produced estimates of the economic gap for Aboriginal people, i.e., the shortfall of economic output (production, Gross Domestic Product) of Aboriginal people from potential output. Potential output of Aboriginal people is a hypothetical construct reflecting the productivity of Canadians. It is assumed that Aboriginal people could produce as much, per person of working age, as Canadians generally or Canadians in circumstances similar to those Aboriginal people find themselves in. Potential output of Aboriginal people can be measured in various ways, and there are major differences in the approaches taken by RCAP and INAC that resulted in very different quantitative estimates. RCAP puts the economic gap at 0.7% of Canadian GDP, whereas the INAC estimate is 2.3% of GDP.

Three factors explain the difference of 1.6% of GDP:

- The INAC estimate would be 1.9% of GDP, or 0.4 percentage points lower, if it was based on the Aboriginal identity population.
- RCAP indicates that its estimate would be 1.0%, or 0.3 percentage points higher, if no correction had been made for the size and location of Aboriginal communities.
- The remaining difference of 0.9% of GDP is due primarily to the inclusion of a multiplier impact in the INAC study. The multiplier effects included in the INAC analysis make the impact of removing the output gap facing Aboriginal people nearly twice as large as the output gap by itself.

Let us comment on these three differences and explain why we regard the RCAP estimate as correct and the INAC estimate as misleading.

Firstly, they are based on different population bases. The INAC estimate uses a larger number for the Aboriginal population of working age (approximately 16% larger than the RCAP estimate). It would seem that INAC defined the Aboriginal population by ancestry rather than identity.

Secondly, different benchmarks are used for the full economic potential for Aboriginal people. While INAC compares Aboriginal people's performance to the Canadian average, RCAP compares the economic performance of reserve and Inuit communities to that of comparable mainstream communities. Most Aboriginal people live in small, rural and remote communities and mainstream communities of this type have output per person that is well below the Canadian average. The RCAP estimate takes account of this and reduces the measure of economic potential for Aboriginal people accordingly.

Thirdly, the largest difference in the estimates is due to the fact that INAC includes a macro-economic multiplier impact of the attainment of self-sufficiency. RCAP only measures the gap between potential and actual output.<sup>19</sup> INAC simulates the achievement of potential output in a macro-economic model, making various adjustments. The growth in employment and productivity required for Aboriginal people to achieve their potential output, in INAC's simulation, generates a large boost to the Canadian economy. We would argue that such a large boost to the economy is unlikely to occur and should not be included in this type of analysis. We do not see how increasing employment and productivity among Aboriginal people would have a multiplier effect in the Canadian economy in the same way that a large investment project or other boost to final demand induces additional activity through the income it generates. To the extent that a multiplier effect occurs it would, like multiplier effects generally, be temporary. In our view, the multiplier effect is overstated in the INAC analysis, and no such effect should be included in a measure of a lasting potential gain.

Finally, the RCAP estimate of the output gap facing Aboriginal people is expressed in 1996 dollars, while the INAC estimate is expressed in 2000 dollars. Thus, the latter could be higher due to rapid growth of the Aboriginal population and changes in the employment and earnings of Aboriginal people between 1996 and 2000. The effect of such changes would be small.

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<sup>19</sup> See Waslander, Bert (1998). "Government Expenditures on Aboriginal People: The Costly Status Quo", *Canadian Tax Journal*, Vol. 45, No. 5, 1998.

## 7.4 Tables

**Table A1: Income, labour force and population, First Nation communities**

	1	2	3	4	5				
<b>Income per capita</b>									
Transfer payments	3,209	3,317	3,743	2,808	2,751	2,730	2,669	2,409	2,815
Other market income	1,956	1,319	1,062	646	299	169	169	561	419
Employment income	11,322	10,115	7,031	9,528	5,190	5,676	4,879	13,250	6,400
Total	16,487	14,752	11,836	12,983	8,240	8,574	7,717	16,220	9,634
<b>Share of population 15-64 (per cent)</b>									
Not in the labour force	26.6	18.9	21.8	19.1	26.3	29.8	34.6	13.1	28.5
Unemployed	9.5	10.4	14.5	11.7	16.9	15.5	14.6	13.3	14.7
Employed	63.9	70.7	63.7	69.3	56.8	54.7	50.8	73.5	56.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Transfer payment income per capita</b>									
CQPP	796	851	654	301	236	158	137	330	269
OAS-GIS	874	835	836	528	495	385	348	567	479
Child Tax Benefits	795	852	1,140	807	873	961	987	573	930
EI	244	357	413	562	294	396	299	487	347
Employment Insurance	486	417	652	569	821	809	821	821	755
Total	3,196	3,312	3,695	2,768	2,719	2,709	2,593	2,778	2,781
<b>Age structure of the population (per cent)</b>									
65 and over	14.1	13.5	12.8	6.5	6.2	4.3	4.1	7.2	6.3
15-64	61.3	64.0	59.4	64.6	59.4	59.1	57.8	64.9	59.5
Under 15	24.6	22.4	27.8	28.9	34.4	36.6	38.0	27.9	34.3
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

**Table A2: Income, labour force and population, other communities**

	1	2	3	4	5	6	7	8	All
<b>Income per capita</b>									
Transfer payments	2,453	2,776	2,885	3,098	3,568	3,296	3,548	2,157	3,310
Other market income	2,240	2,357	1,706	2,035	1,810	1,700	1,785	510	1,819
Employment income	16,827	15,120	14,092	12,906	10,892	12,240	11,305	11,272	12,098
Total	21,520	20,253	18,682	18,039	16,269	17,237	16,637	13,939	17,228
<b>Share of population 15-64 (per cent)</b>									
Not in the labour force	16.8	17.6	16.2	7.1	17.5	13.0	12.2	17.3	15.8
Unemployed	5.1	7.1	9.0	18.0	9.2	8.2	8.6	13.2	8.4
Employed	78.1	75.3	74.8	74.9	73.3	78.8	79.2	69.5	75.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Transfer payment income per capita</b>									
CQPP	642	807	674	737	792	746	806	196	753
OAS-GIS	638	715	699	824	1,066	1,012	1,123	261	969
Child Tax Benefits	524	620	615	661	715	631	670	721	665
EI	353	372	581	535	645	565	570	356	577
Employment Insurance	272	262	308	328	335	324	335	335	328
Total	2,429	2,776	2,877	3,084	3,554	3,280	3,503	1,868	3,292
<b>Age structure of the population (per cent)</b>									
65 and over	10.6	11.9	10.8	12.9	16.0	15.4	17.0	2.8	14.7
15-64	68.8	69.9	69.8	67.5	65.9	65.1	63.5	61.1	66.0
Under 15	20.6	18.2	19.5	19.6	18.2	19.4	19.5	36.1	19.2
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0