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GEOGRAPHICAL PATTERNS OF SOCIO-ECONOMIC WELL-BEING OF FIRST NATIONS COMMUNITIES

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HIGHLIGHTS

- ◆ **First Nations communities in the Prairie provinces and Canadian Shield locations typically have the poorest conditions, as defined by education, housing, employment and income. Southern British Columbia and B.C. coastal communities along with southern Ontario communities have relatively good conditions.**
- ◆ **Between 1986 and 1996, there has been little change in the geographic patterns of socio-economic well-being among First Nations communities.**
- ◆ **First Nations communities appear to be poorly integrated with the surrounding non-aboriginal society and economy — at least in ways that are mutually beneficial. There are only weak correlations between the employment, income and housing of First Nations communities and the neighbouring non-aboriginal communities.**

Introduction

A majority of Registered Indians in Canada reside in one of the approximately 900 small First Nations communities which form a 5,000 kilometre archipelago across the Canadian landscape. The purpose of this paper is to explore four questions regarding the socio-economic well-being of First Nations communities:

1. What is the current geographical pattern of socio-economic well-being of First Nations communities?
2. What do the patterns suggest about possible strategies for socio-economic development open to First Nations?



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Note of Appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

3. Have geographical patterns of well-being changed since 1986?

4. How do First Nations communities compare to neighbouring non-aboriginal communities?

We selected four indicators of socio-economic well-being:

1. *Employment ratio* - Share of the population, age 20 to 64, employed during the week prior to the Census (May 5-11, 1996).

2. *Average income* - Average annual income from all sources, in 1995, for individuals with income.

3. *Education* - Share of the population, age 20 to 64, with less than grade 9 education as their highest level of educational attainment. A lower share indicates a higher level of community socio-economic well-being.

4. *Housing* - Average number of persons per room. A lower number indicates a higher level of community socio-economic well-being.

Variables to aid in the interpretation were:

5. *“Traditional ways”* - The share of the population which speaks an aboriginal language at home. This serves as a proxy for the degree to which a First Nations community has been able to preserve traditional culture. A low share does not *necessarily* indicate assimilation of a First Nation. Such a community may have evolved a distinctive aboriginal culture, but one which has lost some of its traditional elements, including language.

6. *Population structure* - The share of the population under 18 years of age.
7. *Primary sector* - The share of the population working in the primary sector (i.e., agriculture, fishing, hunting and trapping, logging and mining and oil extraction).

Data for this study were drawn from the 1996 Census of Population. Data were assembled at the census subdivision (CSD) level for Registered Indians and Registered Indian households residing in First Nations communities. For the purposes of this study, First Nations communities were defined as CSDs which were classified as reserves, settlements, Indian Government Districts, “terres réservées” or “villages cris”. We acknowledge that a significant share of Aboriginal people live in “non-reserve” communities. However, this study focuses on “reserve” communities. In 1996, Statistics Canada collected data from 751 First Nations CSDs.¹ Of these, 260 communities with a population of less than 65 person were eliminated from the data set as the group was too small to calculate some of our indicators. These small communities made up only 2.5 percent of the Registered Indian population of enumerated First Nations communities. This left 491 First Nations communities for analysis.

1996 Typology of First Nations communities

The 491 First Nations communities were grouped into three groups based on our indicators of socio-economic well-being. Note that while the communities forming any particular group share similar basic socio-economic conditions, fundamental aspects of the economy and society may vary considerably from community to community within the group.

“Above Average” communities

This is a group of 154 First Nations communities characterised by relatively high employment ratios and individual incomes. The average values for these variables for these communities were more than one standard deviation² above the average values for all First Nations communities analysed in this study. Levels of crowding and incidences of education below grade 9 were lower than for other First Nations communities, but the average values were within one standard deviation of the average value for all First Nations communities. Geographically, the greatest concentrations of “Above Average” First Nations were found in northern Quebec, mid- and southern-Ontario and in British Columbia, particularly the lower mainland and other southern regions, as well as coastal regions (Map 1). At the same time, one or more “Above Average” First Nations communities were found in every province. In some instances “Above Average” First Nations are found in relatively close proximity to “High Disparity” communities. “Above Average” First Nations were home to about 23 percent of the Registered Indian population in this study.

¹ Census enumeration was incomplete in 77 First Nations thus missing approximately 44,000 residents.

² “Standard deviation” is a statistical indicator of variability. In a normal distribution of communities, about 68 percent of the communities are within one standard deviation of the average community. Thus, if a measure for a community is more than one standard deviation from the average, then this community is significantly different from the average.

“Typical Disparity” communities

The largest of the three groups, 213 cases and about 47 percent of the population, might best be described as having average First Nations socio-economic conditions and thus show the average or typical level of disparity in the four socio-economic indicators, relative to the average Canadian community. Termed “Typical Disparity” communities, the incidence of low education and crowding were marginally higher than the overall average, while employment and income were marginally lower. “Typical Disparity” communities are relatively prevalent in the Maritimes, southern Manitoba and southern Saskatchewan.

“High Disparity” communities

The third group of 124 communities exhibited below average conditions for all four variables. Average values for the incidence of low education and crowding were more than one standard deviation below the overall average. Levels for employment and income were also well below average values for First Nations communities. Fairly high concentrations of “High Disparity” First Nations are found in mid-Quebec, northwestern Ontario, northern Manitoba and Saskatchewan, and throughout Alberta. Nearly 32 percent of the population lived in “High Disparity” communities.

What kinds of patterns emerge from the typology?

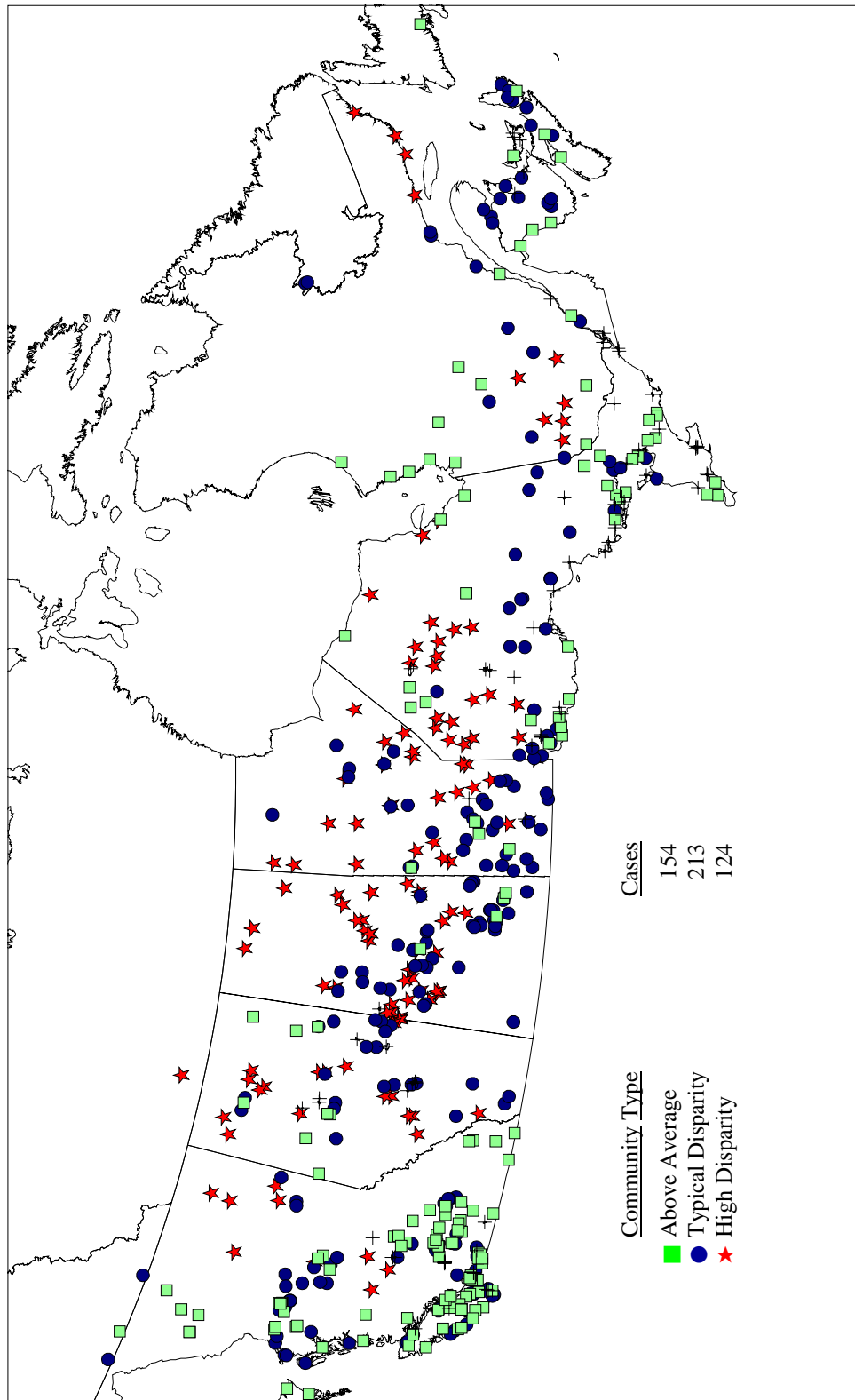
First of all, the communities fall along a better-to-worse continuum in the context of the four indicators and our grouping is somewhat arbitrary, although it does group together communities with similar levels of our indicators of socio-economic well-being. Communities with similar indicators of socio-economic well-being are not clustered in distinct geographical regions (Map 1). However, there are some general geographical patterns. The prairies and Canadian Shield region generally exhibit relatively poor conditions. Southern British Columbia and B.C. coastal regions share, with southern Ontario, concentrations of relatively good conditions. While there is the suggestion of a north-south dimension to variations in conditions, there are pockets of “Above Average” First Nations communities in northern parts of Alberta, Ontario and Quebec.

Paths for socio-economic development

What do the patterns of socio-economic well-being suggest about strategies for socio-economic well-being for First Nations communities? To begin with, the general patterns suggest that location near urban areas or resource rich areas provide advantages to development. These patterns illustrate that accessing resources and integrating with urban labour markets may be two pathways to success. At the same time, the location of some “High Disparity” First Nations communities near major cities indicates that location, in itself, is far from the only determinant of well-being. Communities need to analyse and overcome barriers that may be blocking these avenues. Similarly, the location of several “Above Average” communities in unfavourable locations indicates that there are possibly many paths that can lead to socio-economic success.

Map 1

Typology of Socio-Economic Well-Being among First Nations Communities, 1996



In addition to geographic factors, there are non-locational characteristics which suggest why socio-economic differences exist. The “Above Average” First Nations communities appear more “modernised” than other First Nations communities. The level of aboriginal home language use is only 10 percent for these communities, compared with 15 percent and 52 percent respectively for “Typical Disparity” and “High Disparity” communities. On average, only 38 percent of the population in “Above Average” communities is younger than 18 years of age, compared with 43 percent for “Typical Disparity” communities and 48 percent for “High Disparity” communities. Coupled with higher levels of education, the general profile for “Above Average” communities suggests that adapting selected “mainstream” ways of doing things may be one model for socio-economic success.

However, one must look beyond the overall pattern when searching for explanations. A small group of eight “Above Average” communities, seven of which are James Bay Cree communities, are places where over 89 percent of the population speaks an aboriginal language at home. Another six “Above Average” communities have 35 percent to 75 percent of the population speaking an aboriginal language at home. A small portion of “Above Average” First Nations communities have between 45 percent and 55 percent of their population aged under 18. It appears that there may be more than one model for socio-economic success. It is important also to note that loss of language does not necessarily equate to an absence of a distinctively aboriginal culture. The relative parallels that “Above Average” communities share with the general Canadian population may be considerably more superficial than would appear at first glance.

Changes in socio-economic well-being

During the 1986 through 1996 period, the employment ratio for Registered Indians increased from 28 percent to 37 percent. Education levels have also improved. The percent with less than a grade 9 education dropped from 45 percent to 29 percent, while the percent with high school graduation or some post-secondary education experience increased from 22 percent to 37 percent. However, not all indicators pointed to positive improvements. Housing conditions eroded slightly, with the percent of houses with more than one person per room increasing from 29 percent to 31 percent. The percent of families that were single parent families increased from 24 percent to 26 percent. Average annual incomes, in constant 1995 dollars, declined from \$12,900 to \$12,000.

Geographical patterns of change in community well-being, 1986 to 1996

Notwithstanding changes and pressures for change throughout the past decade, to what degree have geographical patterns of relative socio-economic well-being either persisted or changed between 1986 and 1996? Many characteristics remain similar to the situation in 1986 (Compare Map 1 and Map 2. Note that Map 2 was derived from an earlier analysis (Armstrong and Rogers, 1996) -- the categories are essentially the same but are not strictly comparable.). Relatively poor conditions can be seen to persist in northwestern Ontario,

northern Manitoba and northern Saskatchewan. There is also a persistence of relatively good conditions in southern Ontario, northern Ontario along the U.S. border and in southern British Columbia. At the same time, there is a suggestion that relative conditions have eroded in the northern and central coastal regions of British Columbia and central Alberta, while relative conditions may have been improving in Atlantic Canada and in isolated pockets in the northern parts of provinces from British Columbia to Quebec.

Comparison of First Nations communities with the non-aboriginal population

From the perspective of aggregated statistics, the socio-economic disparities between First Nations circumstances and those of Canadians in general are substantial. In 1996, 29 percent of the on-reserve Registered Indian population aged 15 and over had less than a grade 9 education and 36 percent had a high school diploma or at least some post-secondary education. Figures for the overall Canadian population were 12 percent and 65 percent respectively. Similarly, the on-reserve population had an employment to population ratio of 37 percent and average annual income of \$12,245, compared with an employment ratio of 59 percent and average annual income of \$25,196 for Canadians in general. There are also gaps in terms of family and housing arrangements. Registered Indian families on-reserve are twice as likely to be lone parent families (26 percent compared with 13 percent) and dwellings are over six times more likely to be crowded (31 percent compared with 5 percent)

Correlation with neighbours

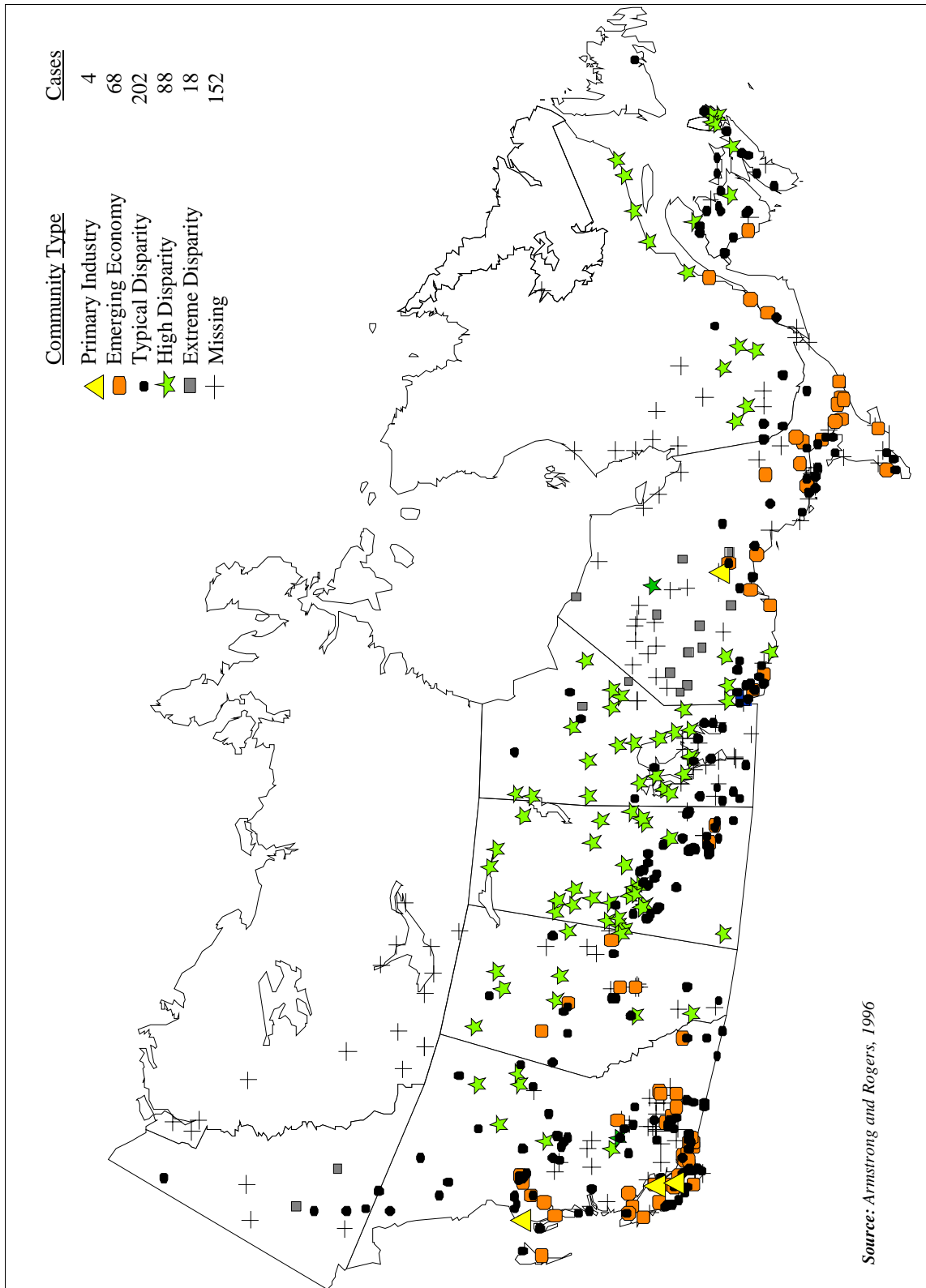
One way to examine the place of First Nations communities in the socio-economic landscape is to examine the degree of correlation between the socio-economic circumstances in First Nations communities and the socio-economic conditions for neighboring non-aboriginal populations. For each of income, housing and education, there was a weak correlation between the situation in First Nations communities and in neighbouring communities. It appears that local non-aboriginal economies only weakly influence the socio-economic well-being of First Nations communities.

Local disparity

Another perspective for examining the socio-economic location of First Nations communities in the context of the non-aboriginal economy involves assessing socio-economic disparities between individual First Nations communities and their local, non-aboriginal populations. Specifically, we examine the difference between each First Nations community and the non-aboriginal population in its corresponding census division. Map 3 shows the geographical distribution of disparities. The emerging picture suggests that disparity relative to non-aboriginal population has both a North-South dimension and a correspondence with the

Map 2

Typology of First Nations Communities, 1986



Source: Armstrong and Rogers, 1996

area covered by the "numbered treaties" (northwestern Ontario, the prairie provinces and small parts of northeastern B.C. and southern Northwest Territories).³

Conclusions

Examination of socio-economic circumstances for 491 First Nations communities shows that the communities may be grouped into three socio-economic groups falling along a better-to-worse continuum defined by education, housing, employment and income. The results indicate that while there is no distinct geographical grouping, some geographical patterns are evident. Communities in the prairie provinces and Canadian Shield locations typically have the poorest conditions. Southern British Columbia and the B.C. coast share, with southern Ontario, concentrations of relatively good conditions. While there is the suggestion of a north-south dichotomy in socio-economic conditions, there are pockets of "Above Average" First Nations communities found in northern parts of Alberta, Ontario and northern Quebec. "Above Average" communities are characterised by relatively low levels of aboriginal language use at home and by relatively small proportions of their population below age 18. While on the surface this might suggest that assuming certain non-aboriginal ways of doing things represents the model for socio-economic success, exceptions such as the James Bay Cree, with aboriginal home language use well over 90 percent, indicate that there are other paths to improved circumstances and that "aboriginality" need not be sacrificed as part of modernisation.

Between 1986 and 1996, there has been a high degree of persistence in the geographic patterns of socio-economic well-being among First Nations communities. There appears to have been a relative erosion in circumstances in coastal regions of British Columbia and relative improvements in Atlantic Canada and in pockets throughout northern portions of provinces from British Columbia to Quebec.

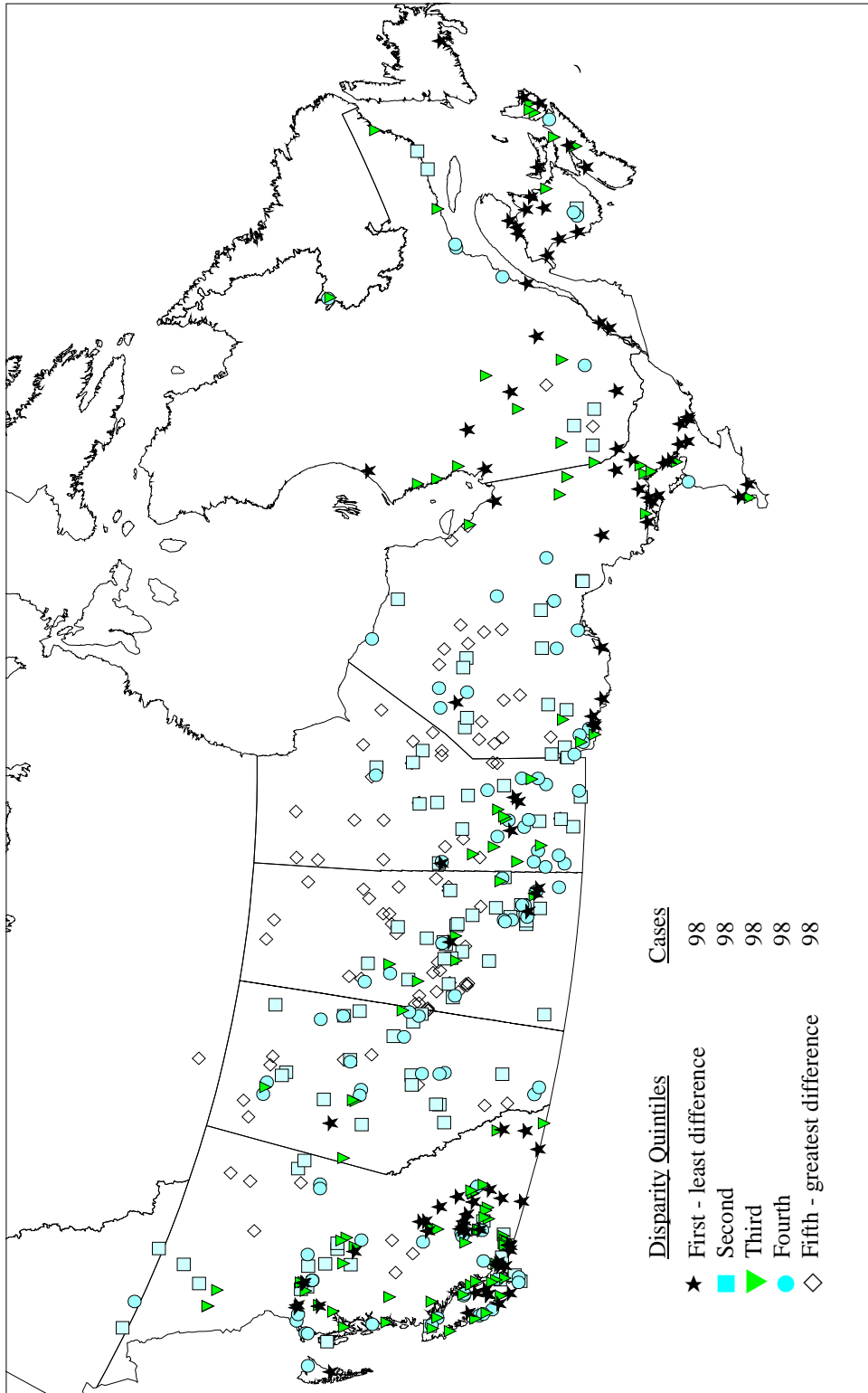
Finally, First Nations communities appear to be poorly integrated with surrounding non-aboriginal society and economy — at least in ways that are mutually beneficial. There are only weak correlations between the employment, income and housing of First Nations communities and the neighbouring non-aboriginal communities. Disparities with non-aboriginal populations display both a north-south dimension and a treaty-non treaty dimension. The First Nations communities with the most favourable of circumstances share levels of socio-economic well-being similar only to those of the non-aboriginal populations in the poorest regions in Canada.

Quantitative analyses of socio-economic circumstances can make only a limited contribution to the search for solutions. The dynamics associated with the causes and dynamics of social decay in many First Nations communities are multiple and characterised by complex interactions. The situations for individual communities are rendered even more complex by

³ The explanation for this pattern may have little or nothing to do with treaty relationships, but rather with geographical aspects of the labour market.

Map 3

Disparity Between First Nations Communities and the Neighbouring Non-Aboriginal Populations



unique geographies and unique histories of contact, resistance, exchange and interaction. Having said this, the typology approach and other quantitative analysis can provide a useful point of departure in the search for solutions. By looking at the characteristics associated with different types of First Nations communities, such as language and age structure, it is possible to develop insights as to what factors may contribute to or detract from socio-economic development. A detailed review of exceptions in the CSD-level data can also provide insights. The James Bay Cree exception suggests that there are multiple paths to development. Finding individual exceptions also may prove useful where identified exceptions are subsequently investigated on a case-study basis. Two examples can be cited that point to the potential utility of this approach. First, when examining outliers, one community, Skeetchestn, British Columbia, demonstrated exceptionally low crowding in its housing. Improvement of housing has been a priority for this First Nation. Skeetchestn has ways of doing things that can be explored and shared with other First Nations (DIAND, 1997: 77-80). Another exceptional First Nation community, Miawpukek, Newfoundland, had conditions better than its neighboring non-aboriginal population. Miawpukek's goal is to achieve self-sufficiency through integrated economic development guided by traditional values (DIAND, 1997: 17-20). More can be learned from intensive case study investigations.

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Table 1. Selected Characteristics of the Aboriginal¹ and Non-Aboriginal Population by Size of Area of Residence, Canada, 1996

| | Size of area of residence | | | | | Total |
|---|--|--|---|--|---|--------|
| | Rural ³ | | | Urban ³ | | |
| | On-reserve ² population (includes urban) | Rural non-farm non-reserve population | Rural farm non-reserve population | Census Metropolitan Areas ⁴ (urban component excluding rural fringe) | Urban (outside Census Metropolitan Areas) | |
| Unemployment rate | | | | | | |
| Aboriginal population | 28.8 | 23.8 | 6.0 | 21.3 | 23.9 | 24.0 |
| Non-Aboriginal population | 12.6 | 12.1 | 2.2 | 9.3 | 10.5 | 9.8 |
| Average income (for individuals reporting some income) | | | | | | |
| Aboriginal population | 12,262 | 16,755 | 17,333 | 17,087 | 17,319 | 15,699 |
| Non-Aboriginal population | 23,309 | 23,311 | 21,943 | 26,786 | 23,707 | 25,414 |
| Percent of individuals who have not completed high school⁵ | | | | | | |
| Aboriginal population | 64.4 | 57.3 | 48.1 | 46.3 | 51.0 | 54.9 |
| Non-Aboriginal population | 34.7 | 41.6 | 43.6 | 31.0 | 38.7 | 34.9 |
| Percent of individuals who have completed high school but have no post-secondary education⁵ | | | | | | |
| Aboriginal population | 6.0 | 9.0 | 12.9 | 11.3 | 11.0 | 9.3 |
| Non-Aboriginal population | 12.4 | 15.4 | 16.1 | 15.4 | 15.6 | 15.5 |
| Percent of individuals who have completed some post-secondary education⁵ | | | | | | |
| Aboriginal population | 20.4 | 24.9 | 30.6 | 29.7 | 27.0 | 25.4 |
| Non-Aboriginal population | 43.0 | 36.0 | 33.4 | 44.2 | 37.8 | 41.0 |

Source: Statistics Canada. 1996 Census of Population.

¹ There are different ways to define the Aboriginal population in Canada. The data shown here are for persons who reported identifying with at least one Aboriginal group (North American Indian, Métis or Inuit) and/or those who reported being a Treaty or Registered Indian and/or those who were members of an Indian Band/First Nation. The 1996 Census also provides information on persons with Aboriginal ethnic origin/ancestry. Depending on the application, data on either identity or ethnic origin/ancestry may be appropriate for defining the Aboriginal population.

² In 1996, 77 Indian reserves and settlements were incompletely enumerated. The estimated population in these areas was 44,000. These people are not included in this table.

³ Rural refers to individuals living outside centres of 1,000 or more people. Urban refers to residents in centres of 1,000 or more people.

⁴ A Census Metropolitan Area refers to a core population of 100,000 persons plus the neighbouring municipalities where 50 percent or more of the workforce commutes to the core.

⁵ For individuals 15 years of age and over who are not in school.