--- Understanding the New Rural Economy: Choices and Options ---

Economic Integration and Isolation of First Nations Communities REPORT I: AN EXPLORATORY REVIEW

Bill Reimer and Chris Trott

with

Cheryl Croxen Martin Hayes Jennifer Perzow Anna Woodrow

for

The Canadian Rural Restructuring Foundation

Department of Sociology and Anthropology Concordia University 1455 boul de Maisonneuve O. Montréal, Québec H3G 1M8

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(514) 848-2171 FAX: (514) 689-5435 E-mail: REIMER@VAX2.CONCORDIA.CA

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Summary

First Nations communities share in the new economic realities of rural Canada. As other rural Canadians, they face the insecurity of the natural resource sectors, the deskilling of rural jobs, the withdrawal of social services, and the existence of a weak infrastructure. They face them with a significantly different set of economic, social, political, and cultural resources, however, and thereby must develop different strategies to take advantage of the emerging opportunities.

These strategies will vary depending on the extent to which First Nations communities are integrated or isolated from their neighbours. It is important, therefore, to identify the extent to which integration occurs, under what circumstances it occurs, and what are its consequences.

This report is the first of two addressing the nature of those processes and impacts. The first discusses available material regarding the integration and isolation of First Nations economies. It includes an analysis of three major data sources: the Aboriginal Communities Profile, the 1991 census, and a specially prepared database matching census subdivisions to those within a 60 km radius. The second builds on the first to identify proposals for research overcoming the data limitations and developing our understanding of the processes of integration and isolation.

The analysis and proposals are developed within the context of a national education and research initiative initiated by the **Canadian Rural Restructuring Foundation**. This initiative is a 5-year project investigating the new rural economy. The analysis of Aboriginal peoples is included as an integral part of the research, both at the macro level and at the level of field work.

Economic integration and isolation are considered with respect to four aspects of First Nations communities: the structure of their economies; the similarities between those economies and those of their immediate neighbours; the nature and extent of exchanges between First Nations communities and their neighbours; and the nature of complementarities which exist between the two types of communities.

The existing information is inadequate to adequately address these issues, but it does provide some indications of fruitful directions for research. First, it is clear that domestic production is an important feature of First Nations economies. It is integrated into both formal and informal economic activities in a flexible and often complex manner. This is supported by case study materials, the analysis of self-provisioning data from the Aboriginal Community Profile, and the patterns of wage labour from census data. Aboriginal communities show high levels of self-provisioning, lower labour force participation rates, higher levels of unemployment,

and a narrow range of industrial employment (primarily in government and education services).

Second, we find that First Nations economies are related in many ways to those of their surrounding regions. Important variations occur between these sites with respect to industrial employment, the extent of part-time and part-year employment, the level of government transfers, and several other economic indicators.

Third, we find that First Nations economies are significantly related to their geographical location. In these ways they often share characteristics of other rural economies. Self-provisioning, consumption, unemployment, and part-time employment all show variation with respect to the rural, northern, or urban character of the sites.

These findings justify the importance of further research along these lines. To understand the processes involved, such research requires detailed information at the level of individual cases, but collected in such a manner that comparisons between communities are possible. Only under these circumstances can the relative importance of the various processes be determined. Proposals for the direction of such research are given in the second report.

Economic Integration and Isolation of First Nations Communities: REPORT I: AN EXPLORATORY REVIEW

1. Preface

This study emerged within the context of a major national education and research initiative of the *Canadian Rural Restructuring Foundation* (CRRF). Entitled *The New Rural Economy: Options and Choices*, (NRE) this 5-year project will examine the changes taking place in rural Canada, the processes underlying those changes, and the opportunities which they create for the improved welfare of rural Canadians. First Nations peoples play an important role in these events, both as agents of change and as a population significantly affected by the changes.

The NRE project includes several components which support the research and education agendas of DIAND. First, the project takes a collaborative and multidimensional approach to dealing with the issues of rural Canada. This means that researchers from several disciplines will be involved, along with policy-makers, community developers, business people, and local residents. Second, the project includes the participation and education of both researchers and local people. Our goal is to develop a local learning culture as much as to gather information. Third, the project is comparative. This means that it will provide an opportunity to examine First Nations communities in their local, regional, and national contexts. Finally, the project is multi-level. Information will be collected and analyzed at national and local levels. This work has already begun with a general analysis of leading and lagging areas in rural Canada. It will be extended with the detailed analysis of 32 field sites beginning in 1998. Several of these sites are First Nations communities.

This document reports on the first stages of our collaboration. It addresses two of three objectives related to the issue of economic integration and isolation of First Nations communities. First, we examine the research literature and use it to identify the major concerns which need to be addressed. Second, we identify the available data regarding the issue and conduct some preliminary analysis to explore promising directions for future work. Finally, in a second report, we make proposals regarding such future work, particularly within the framework of the NRE project.

2. Introduction

First Nations¹ economies in Canada exhibit a number of peculiarities that arise out of their specific geographical, historical, legal, and cultural circumstances. This has led to the treatment of these economies as unique and separate. The community-oriented focus of anthropology and related disciplines has reinforced this view by providing abundant detail regarding individual sites and internal relations. As a result, we are left with the impression that First Nations economies are isolated from the rural, national, and international economies in which they exist. We need to question this impression, for a misreading of the situation would place First Nations communities at considerable disadvantage within the current global and regional changes which are sweeping rural Canada and undermine any policy proposals regarding their situation.

This research reconsiders the impression of economic isolation by examining the ways in which First Nations economies are related to those which immediately surround them. We assume that such isolation or integration is the result of a complex interplay of economic, social, political, and cultural processes which underlie the structures and activities of those involved. In the long term, it is these processes which we must understand in order to deal with the problems and opportunities unfolding with the new rural economy. This is a major task.

We do not expect to complete this task in the short term but we will provide a basis for it through both theoretical and empirical work. We begin with a survey of literature regarding integration and isolation. It includes an examination of the research on Aboriginal economies as well, since the special nature of these economies affects the assessment to be made of their relationship with nearby economic and social systems. We also provide a brief discussion of the legal and historical background to the current situation of Aboriginal communities for the same reason.

The theoretical discussion is followed by an examination of available data potentially relevant to the integration and isolation of Aboriginal economies. This data is very limited for the type of analysis required, but a cautious treatment of it still provides some useful information. One of our objectives is to identify the strengths and weaknesses of the available information so that we might use it with greater confidence.

The empirical analysis focuses on three data sources. The first is the five Aboriginal sites chosen as part of the NRE project. These sites are compared to their neighbouring census subdivisions (CSD) to explore the utility of available information. Comparisons are made between those sites which are federally funded, those which have a high proportion of Aboriginal residents, and other rural sites.

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¹ In this report we use the term 'First Nations' to refer to those people and communities under the jurisdiction of DIAND. 'Aboriginal people' refers to the all original peoples of Canada and their decendents: Indians, Inuit, and Métis people.

The second source is the information available in the Aboriginal Community Profile (ACP), a special database constructed for most CSDs from the Aboriginal Peoples Survey. The third is a specially constructed database which pairs CSDs in the NRE database with neighbouring CSDs. This database integrates information from the census, the ACP, and several other data sources. It allows us to explore the utility of variables from these sources for analyzing the impact of geographical proximity. In all three cases, we investigate ways in which indexes for integration and isolation might be developed from the existing data sources.

This work provides an important basis for future research. It helps us formulate the problems related to integration and isolation, identify gaps in the current information, and prepare proposals for future research to fill in those gaps. Our second report serves as the first such proposal.

3. Review of the Literature

3.1. Integration and Isolation of First Nations Economies

The issue of First Nations economic integration and isolation is first of all an issue about the relationship between a local economy and its region, the wider national economy, and ultimately its place within the global economy. As an economic issue it focuses on the way in which these relationships are organized to produce, exchange, consume, and distribute goods and services. As a local issue it focuses on the role of geography in those activities, particularly the way in which neighbouring people and communities are implicated.

Classical "modernisation" approaches have tended to identify an economy's integration by the extent to which it encompasses industrial relations of production (Haddad and Spivey 1992). The current domination of large corporations and governments has meant that economic relations have been treated as synonymous with the more formal business activities of those corporations and governments. They have also assumed that the economy operates in a manner which is relatively independent from the social, political, and cultural contexts in which they exist.

As a consequence, modernisation approaches have reinforced the view that less formal economies are in many ways backward, resistant to change, or non-rational. The primary focus for social change has therefore been on the individual, family, or cultural characteristics which maintain this resistance in the face of inexorable economic developments. Little attention is given to the ways in which those informal economies might support local populations in the face of unpredictable futures, serve as a necessary complement to the formal economy, or represent a rational response to unfavourable entitlements. In effect, these approaches create a standard by which First Nations economies are judged: integration is measured by the extent to which they look like non-native economies.

Such approaches are inadequate with respect to First Nations. They fail to take into account the fact that other cultural values and interests might be in place that favour other activities, primarily subsistence activities. Thus a well maintained house with heating and running water may be used as an index for social well-being on the assumption that all desire such amenities. However, if one's interest lies in maintaining intimate and flexible relations to the land, then the focus of activity will be on a remote cabin in the bush that provides adequate shelter without such amenities. Under such conditions, access to the land and the protection of its flora and fauna may take precedence. Similarly, in a remote and socially isolated community, the development of strong and dependable family and friendship networks might be a more rational response to uncertainty than the learning of skills which require and demand mobility. We expect that in such circumstances, all elements of the economy are more bound up with informal networks than those of a formal nature.

To help avoid an ethnocentric point of view, we will treat First Nations economies as part of reasonably integrated local systems. Economic activities cannot be isolated. They are embedded in complex social, political, and cultural relations and entitlements which establish conditions and create opportunities for those activities (Granovetter, 1985). The First Nations' history of social and political struggles over land, culture, health, and education clearly reinforce this point. The necessary relationship between economic development and social and political factors is well documented in the literature on American Tribes (Cornell and Kalt 1993; Smith 1994; Vinje 1996). In addition, these social, political, and cultural relations are not fixed, but are themselves influenced by the economic and technological changes occurring both within and outside First Nations communities.

As a result, the question of economic integration and isolation involves more than a study of the formal economic activities of these communities. We have expanded our perspective to include the informal activities which contribute to production, exchange, consumption, and distribution in addition to the more formal ones, and we have done so with a view to their changes over time. In all cases, however, we focus on those activities which bear the most direct relationship to the economic conditions and opportunities facing First Nations communities.

By focusing on local integration and isolation we avoid the tendency to compare First Nations economies to a single model. In each case, we examine the similarities and differences between First Nations economies and their neighbouring communities. This approach directly addresses the issue of local relations while providing points of reference which are geographically similar. In doing so, we focus on four characteristics of the local relationships:

- C the transfers of resources, services, and information between those economic systems;
- C the systems of entitlements (both formal and informal) which condition the structures and opportunities for integration or isolation of First Nations communities;
- C the similarities between the economic systems; and

C the complementaries of those systems within a broader economic and social context.

All four of these are necessary from the perspective we have adopted. The first deals with the movement of goods, services, and technology between economic systems as an indication of their interdependence. The second recognizes there are social, political, and cultural constraints and supports which limit or enhance the structure of First Nations economies and their relations with those nearby. The third provides an indication of the extent to which the economies share similar interests. Such interests could serve as bases for integration either through cooperation or competition. The fourth is necessary since the economies can remain significantly different yet establish a form of integration through their complementary roles within larger systems. The interpretation of rural populations as a 'reserve labour force' is one example of this type of relationship.

With all aspects we examine the issue of relative power and control as it relates to integration and isolation. Transfer of goods, similarity of structure, and complementarity of systems are not benign characteristics if we wish to understand the processes underlying integration and isolation. For this reason, we include an analysis of dependency, control, and agency in our work.

We also remain sensitive to the interpretation of integration and isolation as they relate to the level of analysis. The consequences of labour integration for individuals are likely to be considerably different than for groups. Individual members of First Nations communities might be weakly integrated into the local economy even though the community as a whole is a major player in the local milieu. This is likely to be an important consideration where First Nations communities with strong levels of cohesion are concerned.

First Nations cannot be said to be *either* integrated *or* isolated since they are usually both at any given time. Considerable trade in consumer goods may take place at the same time as severe limitations in inter-community labour mobility occur. The different components of First Nations economies can be granted different priorities depending on a series of strategic choices on the part of both individuals and communities. For this reason, economic activities within a First Nations community may be cyclical or "unstable". Our investigation remains open to such variation, both with respect to the dimensions of integration and to variations in the level of integration over time.

Since First Nations economies have yet to be examined in terms of the integration and isolation from the broader economy, we have few indices that will clearly represent such relationships. An examination of the features that mark both rural economies and particularly First Nations economies shows that many of them can be used a indicators of both integration and isolation simultaneously. High rates of part-time work, for example, have been used to identify locations which are weakly connected to the labour force on the one hand, yet used as a mark of adaptation to a seasonal economy on the other. We propose research, therefore, which can more precisely identify the implications of such indicators for integration and isolation.

3.2. Legal Background

Canada's First Nations exist within particular legal constraints that do not affect other rural, or even urban economies in Canada. As the original occupiers of the territory now incorporated within the Canadian state, First Nations maintain certain rights both in terms of land, but also in terms of resources that inhere in their Aboriginal rights. First Nations stand in a special Constitutional relationship with the Crown whereby the federal government holds a fiduciary responsibility to observe and protect the interests of First Nations². The extent to which the federal government has fulfilled this fiduciary responsibility is currently the concern of much dispute and legal recourse on the part of First Nations, but the constitutional basis remains. No other Canadian, either on an individual or community basis, stands in this relationship with the Crown. In the past twenty-five years a number of settlements with First Nations (e.g. James Bay and Northern Quebec Agreement, Inuvialluit Final Agreement, and the Sechelt Agreement) have transferred some of the responsibility to relatively autonomous self-governing political organisations. This has created a patchwork of differing arrangements across the country where the land and resource interests of the communities become vested in a diverse series of political entities.

Both legal principle and practice in Canada have recognised that title to lands in Canada was originally vested in the variety of First Nations across Canada. Through various legal acts the federal government³ has sought to extinguish Aboriginal title to land, although it remains under dispute whether it is even possible to do so given Aboriginal understandings of their own relationship to the land (Asch 1984). The best known instruments for such extinguishment are the variety of treaties that cover the Maritimes and southern Ontario and the famous numbered treaties of Northern Ontario, the Prairies, and reaching into the British Columbia and McKenzie District of the Northwest Territories. These treaties seek to explicitly extinguish all title to land in return for certain obligations on the part of the federal government and the right to continue hunting, trapping and fishing over the territory⁴. Title in southern Ouebec was assumed to have been extinguished by the French crown prior to the British acquiring the territory, but a recent Supreme Court decision has brought this into question (Coté and Vanderpeet decision). With few minor exceptions, Aboriginal title in British Columbia was not extinguished by treaty and while the British Columbia government argues that title was acquired by the acts of the legislative assembly prior to Confederation both the federal government and the First

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² This responsibility does not extent to the First Nations of Newfoundland and Labrador. The Confederation articles for Newfoundland and Labrador fail to make any mention of the First Nations within this area. In practice the Federal government has undertaken block transfers to the Government of Newfoundland for the Aboriginal peoples in that province, but administration of these funds is entirely within the hands of the province.

³ The Royal Proclamation of 1763 is the legal basis that declares that only the federal government has the authority to negotiate and extinguish aboriginal title to land.

⁴ For a comparative table of the federal control of t

⁴ For a comparative table of the federal government responsibilities under the treaties see Tough (1996).

Nations dispute this assertion. More recent acts such as the James Bay and Northern Quebec Agreement, the Yukon Final Agreement, the Inuvialluit Final Agreement and the Nunavut Final Agreement have sought to extinguish Aboriginal title to land in outstanding regions of the country.

Through the process of settling title to land the federal government set aside lands for the exclusive use of Aboriginal peoples, now usually referred to as reserves. Title to these lands is vested in the federal government on behalf of First Nations and the land is theoretically inalienable without the consent of both the federal government and the First Nation. But what this means is that First Nations do not have title to the lands that they occupy and cannot offer the lands as collateral in the context of receiving loans⁵. This simple legal fact has enormous consequences in the context of economic development especially in the rural areas where the land and its resources are critical in terms of economic potential. The consequence of the restrictions on First Nations receiving loans is that they have been unable to raise capital either through banks or on the market, but are entirely reliant on the federal government as a source of capital input. It is likely to be one of the most significant factors affecting the integration of First Nations communities into their local economies.

The situation with respect to Aboriginal title to resources is much more complex. While the treaties and settlements guarantee First Nations the right to continue hunting, trapping, and fishing the exact content of this right has been the focus of a large number of legal cases (Kulchyski 1994). More recent moves to establish joint management programs are not well established and the long term implications of such moves are not clear (Freeman and Carolyn 1993). While the treaties guarantee access to the resources there is no indication of what restrictions may be placed on this access, and to what use the resources might be put by First Nations. Historically both provincial and federal governments have sought to control and restrict access of First Nations to various resources through licensing and quotas on harvesting, but such moves have been resisted and deeply resented by First Nations. In addition, the courts have restricted the sale of products produced by First Nations, arguing that the resources may be harvested only for subsistence purposes and not for commercial profit. Again such moves have been resisted by the First Nations and constitute a significant restraint on any attempt at economic development until such issues can be resolved.

The relationship between the federal government and First Nations is mediated by the Indian Act. The Act maintains the contradictory premises of forced assimilation of Aboriginal peoples into Canadian society through the process of isolation. While the Act has been revised, and continues to be revised, a number of times since it was originally promulgated in 1876, it has remained in place because it enables the fiduciary responsibility of the federal government and protects the special interests of First Nations. Through the Act virtually every aspect of the lives of First Nations

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⁵ This has recently been changed through legislation that allows First Nations to take bank loans. While the land cannot be used as collateral, band councils are required to countersign loans.

members is regulated. In Canada, who is and is not an "Indian" is legally defined through the act and not on a racial or ethnic basis as one might expect. This creates the divisions between status and non-status Indians and on-reserve and off-reserve policies, all of which structure the demographic profile of Aboriginal communities and in realpolitik affect who is and is not eligible for federal government programs. The Inuit are explicitly excluded from the provisions of the Act, although they are also the responsibility of the federal government since most Inuit occupy a federal territory (with the exception of those in Northern Manitoba, Northern Quebec and Labrador). The restrictions imposed by the Indian Act place the responsibility for economic development firmly in the hands of the federal government and push towards the isolation of Aboriginal communities from the rest of Canada.

3.3. Historical Background

As one considers the historical involvement of First Nations within the wider national and global economy it becomes clear how much the common concern with integration is politically and culturally relative. Under these circumstances "integration" most often implies a specific direction: one has been reflected in a concern over the integration of First Nations people into Canadian society, not the other way around. We need not be limited to such a view. During the fur trade era, First Nations clearly continued to control their own lands and the direction of the trade as well as to supply guides and support for the Europeans as they moved into the interior. It would be more accurate to say that the Europeans were integrated into the First Nations economies rather than the other way around. After the War of 1812-1814, First Nations became irrelevant in terms of European military alliances and were perceived of as obstacles to European expansion and development. Similarly, on the Plains with the collapse of the buffalo herds, the settling of First Nations onto reserves and the shift towards an agricultural economy, First Nations became marginalised and isolated from the national economy. Increasing reliance on European goods and services and dependency on government support led to the present powerlessness of First Nations. Political power thus becomes a critical element in assessing the articulation of First Nations within the wider economy.

The myth of isolated, independent, and autonomous First Nations in Canada prior to colonisation has largely been dispelled in the past few years by extensive archaeological research. This research has demonstrated that prior to the arrival of Europeans there were extensive trade networks covering large parts of North America and moving valued goods such as tobacco, chert, and red ochre over long distances (Dickason 1992). It is now well established that the Huron, for example, had extensive networks with the Algonquians to the north, trading corn for both meat and furs produced by these peoples. Even at this stage it is impossible to speak of the isolation of First Nations economies, but we must consider them to be integrated into a North America wide network. The early European traders tapped into and maintained these trade networks which became the vehicle for the flow of European goods into the interior.

The long and complex history of First Nations in Canada shows the simultaneous move towards both integration into the broader economy and the forced isolation of

Aboriginal peoples from the rest of the economy. While the time periods differed according to the regions of the country, the fur trade provides the earliest example of this dual thrust. The very nature of the mercantile trade drew First Nations into the international economy through the sale of the furs on the international markets and the importing of foreign goods for sale (Ray 1974, 1978). First Nations thus became subject to price rises and declines for both furs and manufactured products as the fur companies, especially the Hudson's Bay Company, sought to maintain their own profit margins. The fur trade thus constitutes the first stage of integration of First Nations economies into what was initially mercantilist trade and later capitalist markets.

One of the features of the fur trade was that to operate effectively it required First Nations to continue to live off their lands to extract the furs and to include the intensive extraction of furs into the traditional seasonal round. The pressure to obtain furs led to the disruption and neglect of subsistence hunting, as well as to the overhunting of certain species in each area. While the trade was focused on obtaining beaver furs, First Nations were in an advantageous position since the beaver provided both skins for trade and meat for consumption. As the beaver declined in each area, serious shortages would arise leading to starvation and the greater dependency of the First Nations on food supplied by the trading post. The trade thus unbalanced subsistence production and led to greater dependency while at the same time maintaining the integrity and autonomy of the First Nations.

Research by Ray (1978) has shown that First Nations resisted price fluctuations and sought to control the trade through withholding the furs and transferring their trade from one post to the other. One of the greatest difficulties for the early traders was the relatively low demand for European products that had to be enhanced through a number of means such as built-in obsolescence and the sale of alcohol. The struggle on the part of First Nations to maintain their autonomy was in the long run ineffective but did allow them to maintain the intimate relationship with the land and the animals that was to persist into the twentieth century.

With the collapse of the fur trade at the end of the 19th Century and the expansion of Europeans into the interior of the continent, First Nations economies underwent radical transformations. The move towards poverty and dependency was institutionally imposed, however, and not a function of cultural or economic factors. In examining the case of the Plains tribes, who were faced with the destruction of the buffalo herds, both Carter (1990) and Tough (1996) have shown that during the treaty negotiations the chiefs clearly recognised that they had to transform their economies to survive and pushed the federal government into providing material support so that their peoples could move into agriculture. The political decision to remove the First Nations from the influence of the immigrant Europeans led to the creation of reserves away from the developing capital infrastructure (such as rail lines) and the restriction of reserves to a limited size. The federal government failed to live up to its obligations to provide the capital (seed and agricultural equipment) to the Plains peoples, and when forced by the persistent petition of the chiefs, it provided shoddy equipment, often too late for the season.

Despite these obstacles many Plains tribes combined and invested their treaty moneys in capital equipment and moved into commercial production of agricultural products. They began to compete effectively into commercial markets for grain and livestock, able to undersell the immigrant farmers because they did not have to pay mortgages on the land and did not carry a burden of debt for initial capital equipment. At this point the federal government stepped in with a peasantisation policy making it illegal for the First Nations to sell their produce commercially (at least without permission of the Indian Agent) and insisted that all production could only be for subsistence purposes (Carter 1990). Similarly the government restricted the purchase of capital equipment by controlling First Nation access to debt. Within thirty years, the emerging agricultural economies of the Plains had collapsed and whatever integration the First Nations may have wanted into the expanding Western agricultural economy was restricted and forced isolation emerged. Thus while immigrant European populations had access to the expanding network of railways and roads, as well as access to various forms of direct and indirect government subsidies for their produce, the First Nations of the prairies were expressly prohibited from taking part in the market and capital developments.

Knight (1996) has shown that the story is similar in the West coast fisheries. By the mid 1800's West Coast peoples had moved into the commercial salmon fishery not only as fishers but also in the cannery and distribution operations. At the same time many First Nations became actively involved in the emerging forestry industries. Through licensing restrictions and the prohibition of the commercial sale of fish, both the federal and provincial governments were effectively able to cut the First Nations out of the most productive sectors of the economy.

In a recent work, Tough (1996) has shown that the same process took place for the inland commercial fisheries in Manitoba and for the sturgeon fisheries in Northern Ontario. Wild rice production in Northern Ontario, while limited to First Nations, was inhibited by the refusal to allow capitalization of the harvesting process and restricted access to markets.

On a national level, the mobility of labour was limited by the imposition of the pass system which restricted Aboriginal travel outside of reserves unless a pass was issued by the Indian agent. The phenomena of Aboriginal movement into urban areas is thus a relatively recent one. More importantly the pass laws restricted the movement of First Nations into the labour force and the search for wage labour.

The situation for First Nations economies would only begin to fundamentally change after the Hawthorn Report of 1966. This report recommended that the persistent poverty of the reserves could only be ameliorated by substantial capital investment by the federal government to create employment and industries on reserves. It was not until the 1970's that the federal government began to invest significant sums into the reserves in the hope of training Aboriginal peoples into skills and creating jobs. Despite government good intentions, Driben and Trudeau (1983) have shown that the excessive bureaucratic control over the funds, the complex funding processes and the meaningless nature of what were essentially make-work projects were counterproductive and effectively creating disincentives for Aboriginal peoples to

move into the labour force. Most of the projects collapsed within a few years with very little development to show for the amount of funds invested. Similarly, Hedican (1982) has argued that the limited outside contacts of reserves impede local initiative and foster reliance on government personnel. Non-reserve settlements, on the other hand, tend to be more autonomous and show coherent local economic planning. The realisation that effective economic development could only occur with local community political and economic control has led to the present impasse over First Nations political development and to the persistent underdevelopment of Aboriginal communities.

The contemporary situation of poverty, underdevelopment, and undercapitalization on First Nation reserves cannot be attributed to "cultural" or to strictly economic factors alone. The isolation of First Nations economies from the wider market is not a function of capitalist exchange processes, but is strongly conditioned by deliberate political policies that have restricted the economic development and movement of First Nations into the national economy. To the extent then that this report locates points of significant isolation of First Nations economies, it must be borne in mind that these are likely to be found in the interplay of economic, social, political, and cultural factors rooted in federal government policy.

If this is the case, then the notions of integration and isolation cannot include only economic criteria but must be seen in the light of wider social, political, and cultural issues. For example, First Nations have democratically elected band councils that seem to parallel similarly organised non-Aboriginal communities. However, the band councils have been imposed through the Indian Act, and while they may control the distribution of moneys from the federal government, they do not necessarily represent the real political forces and divisions within the communities.

4. Sources of Information

Our search of available information relating to the integration and isolation of First Nations' economies was largely disappointing. There has been little work done on this aspect of their lives and few data sources which contained sufficiently detailed information to answer many of the questions which arise. We briefly describe some of those sources below before moving to a discussion of the substance of the data.

4.1. Case Studies

There are many case studies of First Nations communities, from two primary sources: government reports and anthropological field work. The former tend to focus on issues and policies, with some detail on the economic and social milieu of First Nations communities, most often in background reports or internal department documents; the latter provide rich detailed information on specific sites, usually without the comparative analysis which we require. These materials provide a strong basis for the identification of issues, the analysis of those issues, and the generation

of important questions to guide our work. They are the primary sources for the development of our general framework and approach.

4.2. The Census of Canada

The Canadian census is primarily sensitive to economic, labour force, and demographic characteristics of the population. It is one of the few sources which has sufficient number of cases to permit the analysis of very small areas throughout the country. As such, it is an important source for comparison between rural locations, including First Nations communities.

The census has a number of significant limitations, however. First, it is largely insensitive to the informal structure of First Nations economies. The important role of social, political, institutional, and cultural characteristics for the functioning of those economies is virtually invisible using the census. Second, we find that even those items which might be used as indicators of such economies remain largely equivocal in their interpretation. Part-time work, for example, although a part of the census, is not sufficiently detailed to separate the various lifestyles it reflects in the local economy. Third, the census provides very little information regarding the relationships between communities at the local level. Our exploration of the migration items in the census has made clear that many assumptions must be made in order to use them as indicators of such relationships. Those assumptions have not been examined within the local context. Fourth, the requirements of confidentiality for the census often means that information about the smallest locations is suppressed. This is a serious problem for our focus on rural Canada since many of the communities we wish to examine are at the limits of the size requirements for census information. Finally, the census provides no information from those Aboriginal communities which refused access. This means that we must either supplement the census information from other sources or place important conditions on the generalizations we make.

Even with these limitations, the census information is useful for providing a comparative framework for future research. We are able to locate individual communities within a broader context in order to aid the interpretation of the field study material. This role for the census data will be particularly enhanced as we conduct special analyses of the relationship between census variables and the more detailed information which comes from the NRE field studies. Such an analysis makes it possible to evaluate the assumptions required for drawing inferences from the census materials.

4.3. The Aboriginal Peoples Survey

The Aboriginal Peoples Survey and related Aboriginal Communities Profile represent considerable improvements on the information provided by the census. They have information which is more sensitive to the special characteristics of First Nations economies and they expand the range of information to include more social aspects. The information regarding local production, for example, is an important supplement

to the census material and the data regarding consumption patterns and migration can be used for examining some aspects of exchange with nearby locations.

The ACP remains insensitive to many elements of importance to our study of integration and isolation, however. For example, it has little if any information on labour movement, movement of capital, institutional integration or isolation, social networks, political organization, intermarriage, cultural practices, local services, legal entitlements, or strategies of local residents. This type of information can only be gained by intensive work in the field. In addition, it suffers from similar problems of representation as those found in the census. Many First Nations communities did not participate in the survey, or did so only partially. This means that the representativeness of the data is compromised. It also limits the extent to which comparisons with non-First Nations communities can be made since they are not included in the survey. Thus, it will be difficult to identify those characteristics and processes which are unique to First Nations communities from within the ACP.

In spite of these limitation, the ACP provides the best source of information regarding the characteristics of First Nations communities at a general level. We make considerable use of it to identify the broad features of their economies and social structure. The NRE field work will provide an opportunity to identify the strengths and limitations of the ACP, thereby increasing its utility.

4.4. The Census Subdivision / ACP Database

Information from the ACP has been integrated into the Census Subdivision database prepared for the NRE project. This makes a comparison possible between First Nations and non-First Nations subdivisions with respect to the variables included in the census. It also provides an opportunity to investigate the relationship between the census variables, those of the ACP, as well as the administrative information which is part of the CSD database (hospital and policing services). As the CSD database grows, the opportunities for comparison will increase.

The CSD/ACP database suffers from many of the same limitations of each of the databases separately. Many First Nations communities are excluded, the range of information is limited to primarily economic and demographic characteristics, and the indicators are largely insensitive to movement and exchanges of people and goods. Its greatest value will be for the examination of similarities and differences between First Nations and non-First Nations CSDs.

4.5. The CSD/ACP Radius Database

As part of our investigation, we constructed a database which focuses on the relationship between a CSD and those CSDs which surround it. Using information from the CSD and ACP sources, we are able to examine the characteristics of a

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⁶ This data has been made available through the Data Liberation Initiative of Statistics Canada and Concordia University. We wish to thank Statistics Canada for this valuable initiative.

target CSD and those radius CSDs which are within a predefined distance.⁷ This database was used to explore the similarities and differences between the target and radius CSD in order to indirectly identify the extent of integration or isolation between them.

This database is unique in that it provides a geographical link between CSDs. The link is established using the latitude and longitude of each CSD centroid and it is therefore limited by the nature of such a technique: the distances do not reflect physical terrain and roads and they approximate the location of residents by using the population centroid for the CSD as established by Statistics Canada. Nevertheless, the database can be used as a basis for a general analysis of proximity to supplement the more detailed study provided by the field work.

5. Demographic Characteristics

The following discussion makes use of two primary data sources. The first is the census and Aboriginal Community Profile data regarding the five Aboriginal sites proposed for the NRE project: Indian Brook (NS), Okanese (SK), Soowahlie (BC), Upper Liard (YK), and Arctic Bay (NT) (more detailed summaries of these sites can be found in Appendix). The second is the CSD/ACP data which compares CSDs and all surrounding CSDs within a 60km radius. These two sources complement one another: the former provides local detail, and the latter examines the extent to which the local characteristics can be generalized.

5.1. Population Structure

Historically, First Nations populations have shown a marked decline in population until the 1920's. This justified the 19th Century Indian Affairs' claim that the Indian population of Canada was dying out and did not warrant significant investment in future economic development. Since the 1940's the population has turned around and while the initial increase was slow, in more recent years the Aboriginal population has shown the highest growth rate in Canada. Unlike the remainder of the population, the Aboriginal population growth is due only to natural increase. This has created a relatively young population with a small adult working age population and for the most part a smaller elderly population. Norris (1996) has argued that one must be very cautious making generalisations about the Aboriginal population as a whole since there are significant differences between the registered Indian population, the non-status Indians, the Metis and the Inuit. Cross-cutting these distinctions are the on and off-reserve populations as well as those from rural and urban areas.

The Aboriginal population in Canada is young and growing rapidly due to high birth rates, low mortality rates and migration (RCAP 1996: 803 and r.271). Fifty-six percent of Aboriginal people are under 24 years of age (RCAP 1996: 931). Twelve percent of the "Aboriginal Identity Population" reside on reserves in the "Mid-

⁷ Our analysis used a distance of 60km from the population centroid of the CSD.

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North" (primarily Registered North American Indians) (RCAP 1996: r.184-199) compared to 58% of all Registered North American Indians (RCAP 1996: r.183).

This population structure is clearly reflected in the CSDs selected in the preliminary sample for the NRE project. Indian Brook, Okanese, and Arctic Bay all show a high young dependency ratio and a low old dependency ratio relative to the surrounding population. Upper Liard and Soowahlie seem to contradict this

Young Dependency Ratio				
_	site	radius		
Indian Brook	49	33		
Okanese	69	40		
Soowahlie	37	46		
Upper Liard	25	44		
Arctic Bay	96	51		

trend with their low young dependency ratio and high old dependency ratio. These variations are likely a function of the location of the respective CSDs in relation to surrounding non-native communities. For Indian Brook, Okanese, and Arctic Bay the surrounding CSDs are for the most part non-native, reflecting the relationship of native to non-native communities while for Soowahlie and Upper Liard the surrounding CSDs are largely native thus reflecting the population structures of the selected sites.

The rapid growth of the Aboriginal population is also reflected in the sample CSDs. The population growth rates of Indian Brook, Upper Liard, and Arctic Bay are higher than the surrounding non-native CSDs. The Soowahlie growth rate is slightly lower than its radius CSDs, but most of the latter are also reserves.

Population Growth Rates				
-	site	radius		
Indian Brook	14	10		
Okanese	10	-3		
Soowahlie	23	30		
Upper Liard	24	-1		
Arctic Bay	96	51		
•				

For Indian Brook, Okanese, and Arctic Bay the percentage of single mothers is significantly higher than the surrounding population while for Soowahlie and Upper Liard the percentage is slightly lower. This pattern is likely due to the native population surrounding the latter communities. The percentage of single mothers is significant because it not only reflects the young and increasing population, but also indicates a significantly greater proportion of the population that is limited in its ability to enter the labour force without adequate child care support.

These demographic characteristics of the Aboriginal population in general and the specific case examples are the first hints of two themes which emerged as our research progressed. First, we find support for the relatively unique characteristics of First Nations communities as reported in the literature. This suggests that the economic needs of these communities will be markedly different in terms of support structures for the younger populations, and the need for careful planning for the future as the current population matures and enters the labour force. However, we also find important variations among First Nations communities. Both of these suggestions will receive more attention as we proceed with the detailed analysis.

Research Questions

- C In what ways have the demographic characteristics of First Nations economies changed over the past 40 years?
- C How different are they from similar rural locations?
- C In what ways are the demographic characteristics related to the economic options of First Nations communities?

5.2. Community Size

Despite the young and growing population of First Nations CSDs, these same locations are marked by the relatively small size of the aggregate population in relation to the surrounding areas. In part this is a function of historical factors which divided up the Aboriginal populations and located them on small reserves whose land and infrastructural base were unable to support large populations. In addition, the definition of who was an Indian under the Indian Act (and thus eligible for programs) tended to drive away people who did not fulfil the criteria: keeping the local populations relatively small.

With the exception of Arctic Bay each of the case study populations is significantly smaller than the average population of the surrounding CSD's. Arctic Bay stands out because the only adjacent CSD is the mining community of Nanisivik with its limited population focusing on a single resource extraction industry. In relation to the slightly more

Popu	lation - 199) 1	
	site	radius	
Indian Brook	770	16604	
Okanese	110	555	
Soowahlie	210	11511	
Upper Liard	160	515	
Arctic Bay	540	295	
·			

distant Inuit communities of Pond Inlet and Igloolik, Arctic Bay's population is significantly smaller.

The small size of Aboriginal CSDs creates particular economic and development problems since economies of scale and efficiency may not be possible in these contexts. The combined features of a small and young population create special problems when exploring the prospects for these economies.

Research Questions

- C In what ways do First Nations economic structures vary from other rural locations of similar size?
- C What development options are available for small rural communities?

5.3. Density

Another characteristic of Aboriginal populations is their low density relative to the broader Canadian population. Aboriginal communities tend to be located away from major industrial centres (another policy feature deriving from the Indian Act) and in poorer and less productive lands. In addition, many First Nations people maintain ongoing harvesting activities on the land which require the dispersal of the population over large areas of territory. Neither compact settlements nor large

populations are advantageous in these situations, but the low density creates problems in providing cost-efficient services and infrastructure. In a few cases the federal government has sought to resolve this problem by relocating Aboriginal communities into areas that are easier for them to serve. While such a move may appear economically rational the social and cultural disruptions that such relocations have created usually offset any material advantage that has accrued.

Research Questions

- C In what ways do economic and social infrastructures vary by the population density of First Nations and rural communities?
- C What density levels are necessary for First Nations communities to implement various economic strategies?

5.4. Male/Female Ratios

Norris (1996: 197) shows that the male to female ratio for those of Aboriginal ancestry is 95.2 males to 100 females while Canada as a whole is 97.7 males for every 100 females. Inuit ratios are strikingly different with 102 males to 100 females. Within the First Nations, those populations on reserves have 106 males to 100 females while rural off-reserve populations have 82.3 males to 100 females and urban off-reserve populations have 77.5 males to 100 females. These discrepancies reflect higher rates of migration for women into the urban areas, leaving men behind in the rural reserve areas. Women's participation rate in the labour force is lower than men's despite the fact that women tend to have attained a higher level of education than men (RCAP 1996: r.18874-19005).

Research Questions

C In what ways do First Nations men and women's migration rates, destinations, and patterns vary.

5.5. Legal Status

Underlying these demographic characteristics is the legal status of the populations as defined through the Indian Act. While the 1985 changes to the Indian Act have loosened the restrictions defining Indian status, this has not resolved the issue of what basis to use for defining who is eligible for status.

The census data indicates that the sample CSDs largely recognise themselves as of single ethnic origins: Indian Brook (97%), Soowahlie (100%), Okanese (93%), Upper Liard (88%), and Arctic Bay (97%). What these figures reflect is self-identification according to ethnic status and they mask the percentage of the population that might be considered status by the Department of Indian Affairs and thus eligible for services. Further, these figures do not indicate what proportion of the population may be registered on the band list and thus eligible for services, but currently reside outside the community.

A further problem with this sample is that there are Aboriginal populations that are not registered and thus do not appear as distinctive Aboriginal communities although

they may share many characteristics. Hedican's (1995) research into unorganised Aboriginal communities along the rail lines of Northern Ontario indicates that there may be more of these communities than expected. They would be included only as part of the non-Aboriginal rural population. The extent to which they may share the characteristics of the rural area in which they are located, and the extent to which they are different cannot be assessed from the data.

The legal definition of who is and is not entitled to certain services within Aboriginal communities further marks these communities as distinct from non-native rural communities. For the most part non-Aboriginal communities are served on the basis of residence rather than an established legal/ethnic status. Within non-native rural communities every resident is treated equally (at least under the law) with respect to economic opportunities and access to services, while this may not be the case for many residents of Aboriginal communities. Those people of Aboriginal ethnic origin without status but within Aboriginal communities may have access to neither the special services for First Nations nor the more general services received by the wider population.

Research Questions

- C In what ways does the legal status of First Nations people create barriers to or encourage participation in the formal labour market?
- C Under what conditions does the legal status of First Nations peoples create barriers to or encourage integration with nearby communities?

5.6. Cultural Affiliation

It is simply a myth that there is a "Native" or "Aboriginal" population in Canada that can be treated as a single analytic unit. The variation culturally and linguistically among the First Nations that occupy Canada is greater than the variations among the populations that continue to occupy Europe. These specific historical and cultural traditions of each of the peoples involved must be taken into consideration when undertaking an analysis of each community. With aggregate data it is extremely difficult to ascertain the extent to which particular cultural affiliations influence the economic position of the community. Taken from the other direction of intensive community research (most common in anthropology) the emphasis on the distinctive cultural characteristics of each community make it extremely difficult to work on a comparative basis.

Of the sample communities chosen, a wide variety of cultural affiliations are represented. Indian Brook is a Miq'maq community, Okanese is Cree, Soowahlie is Sto'lo, Upper Liard is Dene, and Arctic Bay is Inuit. While it is hardly possible to say that this is representative of the First Nations in Canada it does provide sufficient variety so that the cultural factors may be taken into consideration.

Research Questions

C In what ways do the cultural affiliations of First Nations people limit or enhance economic and social transactions?

6. Structure of Contemporary First Nations Economies

It is probably foolish and dangerous to try and characterise the economies in First Nations communities under a single model. Nevertheless research, particularly by Elias (1991, 1992, 1995) and Stabler (1989a, 1989b, 1990), has indicated some distinctive characteristics that mark First Nations from other communities.

The RCAP, in its chapter on Economic Development, stresses the importance of recognising the diversity of Aboriginal economics as well as the sense of collectivity from which economics is approached (1996: 778). The Commission also focuses on the dependent nature of Aboriginal economies (1996: 800) in terms of social assistance and reliance on public sector jobs. The extent to which these are unique features and the extent to which they are shared with other rural economies in Canada remains an outstanding research problem which needs attention. Indeed, by bringing questions that have been raised in the analysis of native economies back to the sociology of rural economies, new patterns may be highlighted that may have been overlooked in traditional economic analysis.

One of the dangers of working from an aggregate, macro model of First Nations economies is that it eludes the strategic decisions that can be made by actors in their search to make a living. As will be discussed shortly, First Nations economies can be characterised by their domestic basis and the dual nature of economic relations. As one moves to consider labour force participation including full-time, part-time, and seasonal work the aggregate figures mask the choices made by each individual (in relation to other members of the family) to undertake subsistence production or enter into labour with the view to re-entering subsistence production at another point.

6.1. Characteristics of First Nations Economies

In his comprehensive overview of First Nation economies Elias (1995) highlights the mixed nature of the economies, the importance of kinship and the reference to households as basic economic units. According to Elias, Aboriginal economies are generally comprised of 3 areas: domestic production, wage labour, and transfer moneys.

We will add the important role of the informal economy to this list. Closely allied to domestic production, the informal economy comprises the exchange of goods and services which are neither protected by a formal code of law, nor recorded for use by government-backed regulatory agencies (Ellison et al., 1997). Under conditions of a restricted labour market, we are likely to find a rather extensive informal economy, particularly in isolated communities (Gershuny, 1997). This means that the *product-focused* framework of domestic production, should be supplemented by the *exchange* focus of the informal economy in our investigations. The latter focus is very consistent with our concern regarding the integration and isolation of First Nations communities.

The evident lack of industrial and manufacturing development in most First Nations communities suggests that such organisations would not be the focus of economic activity within these communities. Instead, the household forms the base for both productive and consumption activity within the context of broader kinship and community ties. This is particularly the case in areas where subsistence production remains important: where harvesting and the preparation of products such as meat and skins are divided on the basis of a sexual division of labour within the household. More important, in the context of the mixed or dual economy where subsistence production is combined with wage labour, the various activities of each household member contribute to the economic stability of the unit. Those engaged in wage labour provide money to buy capital equipment to sustain harvesting and in return share in the meat and skin products produced through the subsistence sector. This wage labour may take many different forms, including one person undertaking part-time or seasonal labour or many members of the same household contributing from several jobs.

The household does not exist alone but stands in a series of relations to other such units within the community on the basis of what have been called "kinship" ties. Without entering into the anthropological debates over what constitutes kinship, it must be pointed out that these do not necessarily have to be structured on the basis of what most Canadians conceive of as ties of "blood" and marriage. Other factors such as namesake and spiritual connections will enter into the construction of such ties, and there is good evidence that "kinship" relations are themselves constructed out of those with whom one co-operates and shares. The distribution of goods, both those produced through harvesting and those purchased through cash, may include a wide range of people throughout the community. Wenzel's (1991) close analysis of such distribution networks in Clyde River has shown that they become transformed with settlement into a community context and in fact become more restricted than they once were while living on the land. It is not possible to understate the significance of such ties in First Nations communities and the ethic of sharing as a critical ideological stance through which they are distinguished.

Many of these characteristics are invisible using the information available through census and survey sources. Yet they are critical to understanding the nature and operation of First Nations economies. For this reason, the investigation of these economies must include a significant component of field work at the local level.

An exploratory factor analysis of First Nations communities revealed a complex, rather than simple economy. Thirty-three significant factors were identified when using 90 economy-related variables. None were prominent. The first five factors were related to residential mobility, housing costs, participation in the fishing industry, family wealth, and education levels.

Research Questions

- C What forms of household organization are found in First Nations communities?
- C How do they relate to the individual and social welfare of their members?
- C How do the households relate to other households and groups in the community?
- C What types of economic activities and structures are found in First Nations communities?
- C In what ways do these various economies relate to the social and political structures of the communities?

6.2. Domestic Production

Also referred to as "subsistence production or activities", this sector of Aboriginal economies produces food, shelter, clothing, and other basic items. It is a cornerstone of First Nations economies (RCAP 1996: r.7856-7861; Elias 1991: 40). In spite of much debate over how to measure the contribution of subsistence harvesting in absolute terms and its value relative to other sectors of the economy, its importance to First Nations' economies remains uncontested.

There is a great deal of variability over Aboriginal communities with respect to the amount and value of subsistence production. In part, this is a function of geographical location and the availability of wildlife resources within the area. More urban communities have less access to such resources (although they may be able to import them from

% All/Most Meat, Fish, Poultry Obtained from Hunting or Fishing

(Aboriginal settlements)
Northern 20.8%
Rural 19.2
Urban 4.3

other communities) while those in rural areas will have greater access. This is most likely reflected in the high proportion of people in Arctic Bay who use meat and fish from hunting and fishing. All of the residents in the CSD and 90% of those in the surrounding CSDs report such use. The most significant difference is in the amount of reliance on such sources. Those in Arctic Bay are more likely to have half, most, or all of their meat and fish from hunting and fishing, whereas those in surrounding CSDs (largely non-native) are more likely to indicate only 'some' came from these sources. The extent to which this is a reflection of trade or cooperation between those in Arctic Bay and the surrounding CSDs can only be determined by more detailed information.

In the more southern and less isolated sample sites, the data are more equivocal. In the Soowahlie region, there is a higher proportion of people in surrounding CSDs (largely native) who use self-caught meat and fish, whereas in Indian Brook the proportions for those in the CSD and those in surrounding CSDs (largely non-native) are virtually the same. The range of variation in these patterns merely reinforces the

importance of more detailed study regarding the extent to which domestic production serves as a basis of integration or isolation with nearby communities.

Subsistence production includes the harvesting of wild game and vegetable products as well as agricultural production for home use. These products are only available seasonally. The anthropological literature has shown the precise seasonal rounds undertaken by First Nations communities to concentrate their production time on the most abundant available resources. This means that the labour requirements for the productive activities will vary over the seasons and the productivity of each resource will vary over time with the natural cycles of game. The subsistence sector thus requires that people move in and out of productive activities during the annual cycle providing space for other activities such as leisure, ceremonies, or wage labour.

One of the problems with the aggregate employment data is that it tends to count people engaged in subsistence activities as unemployed since they are not engaged in wage labour and may not be seeking work while they are waiting to enter a new cycle of production. Similarly part-time or seasonal workers may be engaged for the remainder of the year in subsistence production, using their wages to provide the capital

In rural areas, the level of self-provisioning is related to the official status of Aboriginal Peoples.

% All/Most Meat, Fish, Poultry Obtained from Hunting or Fishing

(Aboriginal settlements)
Federally Funded 13.2%
> 50% Aboriginal 25.2

resources. A more recent phenomena created by the centralisation of First Nations into settlements, has been the "weekend hunters" who are engaged full-time in wage labour but commit their weekend and holiday times to harvesting on the land. This is now possible through rapid forms of transportation in snowmobiles and speed boats, and the use of high powered rifles. The significance of these patterns for economic and social integration will require more detailed field work.

Calculating the value of subsistence production has proved to be extremely difficult and has led to much controversy. Two methods have been used to date: a capital cost calculation and a replacement cost calculation.

The capital cost calculation has been used less frequently because of the difficulty in collecting the empirical data. The method seeks to ascertain what the cost of producing meat per pound would be if one includes the cost of capital equipment and the amount of labour time involved in the production of wild meat and furs. By including the costs of equipment such as snowmobiles, boats, engines, rifles, gas, ammunition, tents and other camping equipment and by including a depreciation value⁸ the capital costs of hunting can be estimated. This requires an extensive

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⁸ Depreciation value has proved to be difficult to calculate since it depends on how long the equipment will last in the rugged conditions and heavy use to which it is put. A full time hunter in the Arctic may need to replace the snowmobile every year, which would significantly increase the depreciation values.

inventory of hunters' equipment and how long it lasts. The more difficult calculation is the hours of labour invested in subsistence activities since this should include the preparation of the equipment, travel time, stalking time, time for the hunt, butchering and preparing the carcass and skins, and so on. While time/motion studies have been undertaken (Smith, 1991) the data is very difficult to compile for a large number of hunters. The further difficulty has been to assign an hourly "wage rate" to each of these activities. Authors have generally used a rate that the hunter could have earned had they engaged in wage labour and not hunted, although this is not very realistic since wage labour may not be available in any case. The biggest problem with this method is that it cannot account for the cultural value imputed to the activity by those who participate.

Replacement cost calculations have also had a number of empirical difficulties although this method has been used quite frequently (Brody 1981). This method is based on an estimation of the cost, should the hunters have to replace the amount of meat by store-bought food. This requires that the producers record the number of each species of game that they capture over designated periods. Research has provided standardised figures for the edible weight of each species and this multiplied by the harvest provides a raw figure of the weight of food harvested. It has been shown that wild game contains more nutritional value than domestically produced meat and multipliers have been included to render an equivalent weight for domestically produced food (although such multipliers have yet to be produced for all species). With the weight of meat produced thus calculated, attempts are then made to convert these figures into a dollar value. It is here that the greatest difficulties are encountered. First, it is unclear which domestic animal equivalent is most appropriate to convert the wild animal for purposes of comparison: chicken for partridge? turkey for geese? beef for moose or caribou? lamb for seal? To simplify the matter, researchers have tended to convert all wild game into beef using the nutritional conversion factors. Finally, we can ask "What price should be used in the conversion? ": The price of meat in the local store? the price of meat in southern supermarkets? or the wholesale price of meat? Each of these solutions has been suggested and tried with remarkably variable results.

Despite all of these complications a number of researchers have produced estimates of the value of country foods in various communities. While the absolute figures vary, what is surprising is the volume of food produced in this sector of the economy. The estimated ratio of subsistence production to wage labour and transfer payments have varied between 30 to 60% (Elias 1995: 9). Whichever figure one takes it is a significant proportion of the economy.

Usher and Wenzel (1987) have offered a significant critique of the harvesting studies, arguing essentially that all the data that is currently available is probably underreporting the actual harvest. One of the biggest difficulties is collecting the appropriate data for each of the species. While the figures for large game (moose, caribou, deer, seal, beaver, bear, etc.) may be reliable, the figures for small game (birds and rodents) and fish are almost certainly unreliable (see Hopper and Power 1991: 267-274). One of the greatest difficulties has been that hunters are reluctant to report their catches for fear that the data may be used to impose quotas on them.

The Aboriginal Communities Profile provides a partial indication of domestic production by using the information regarding the percentage of meat, fish, and poultry which is obtained by hunting or fishing. As shown in Figure 1, There is some variation in the extent to which this occurs. In rural areas, federally funded communities are much less likely to use hunting or fishing as a means of obtaining these items than those communities who have 50% or more Aboriginal populations. In northern locations, both types of

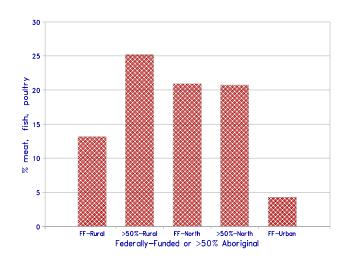


Figure 1: % Meat, Fish, Poultry Obtained by Hunting or Fishing by Type of Target Community

communities have approximately the same levels, and in urban locations, the federally funded communities have only about 4% of the population using this method of subsistence. This data suggests that there are likely to be important variations in the use and structure of the domestic economy by official status and location of Aboriginal communities.

Figure 2 breaks this information down by the type of CSDs found within 60 km of the target communities. It shows that the major effects of the type of radius community are found in federally funded CSDs in rural areas and the nonfederally funded CSDs in the North. For the former, if they are have non-Aboriginal CSDs nearby, they are less likely to engage in selfprovisioning. For the latter, they are less likely to do so if they have federally funded Aboriginal CSDs nearby. These figures most likely reflect differences in the

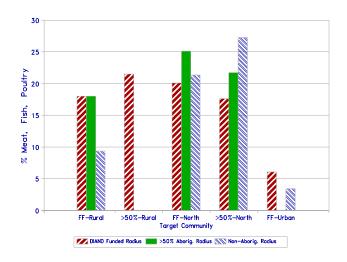


Figure 2: % Meat, Fish, Poultry Obtained by Hunting or Fishing by Type of Target and Radius Communities

organization of domestic production within Aboriginal communities as well as

important differences in the patterns of exchange and strategies of self-provisioning depending on the local opportunities.

The situation becomes even more complex as we consider the changes which have taken place over the past 25 or so years. There are some indications, for example, that levels of self-provisioning have fallen in First Nations communities. The reasons for this are unclear as are the consequences for the role of self-provisioning in the local economies. These are clearly areas which need research attention.

Another serious problem in all of this research has been the omission of the importance of women's labour in domestic production. Most harvesting studies have focused on the hunting, fishing. and trapping activities of men, overlooking the fact that women also undertake these activities and that much of the small game and fish is produced by women. There are no current estimates about how much women contribute to the diet of Northern hunters. An even more serious omission is the women's labour that goes into the butchering and preparation of food, and the preparation of skins and their transformation into clothing. While there is considerable data on how each of these processes work and considerable information on the clothing patterns that women use, little or no time and activity studies have been done. Nor has there been any research attempting to calculate the replacement value of the clothes that women produce through their activities.

The dearth of information regarding women's activities is paralleled by the lack of comparable information regarding the relationships and exchanges between kin and neighbours with respect to goods and services. The case study material points to the importance which such relations have for the operation of domestic economies, the maintenance of social support, and even the functioning of the formal economy. There is little data which allows us to make comparisons between these case studies, however. Without such information, it is extremely difficult to assess the relative impact of these relations and networks on the lives of those in the communities. In spite of the difficulty of identifying and obtaining comparable data on these issues, its importance warrants the effort.

Research Questions

- C What forms of domestic production and informal economies are represented in First Nations communities?
- C In what ways do domestic production and informal economies contribute to or limit the openness of local economies?
- C What are the strategies employed by households to integrate domestic production and the formal economy?
- What individual and social skills are transferrable between the informal economy and the formal economy?
- C How do the activities of each type of household member (e.g. by gender and age) contribute to the survival of the household and community?
- C How are kin and friendship relationships integrated into or excluded from formal and informal economic activity?
- C What information would provide valid and reliable indicators related to the informal economy and domestic production?

6.3. Wage Labour

The second major component of First Nations economies is participation in wage labour. Both the census and the Aboriginal Peoples' Survey provide data on participation in the economy and the kinds of industries available for employment. In general, First Nations CSDs show lower labour force participation rates and higher unemployment rates than other rural economies. Within this general difference, there is some variation,

Employment Information - 1991				
	PR	UE		
Fed.Funded-Rural	51%	29%		
>50% AbRural	65%	25%		
Non-AborigRural	63%	10%		
Fed.Funded-North	51%	32%		
>50% AbNorth	55%	20%		
Non-AborigNorth	68%	28%		
Fed.Funded-Urban	53%	22%		
Non-AborigNorth	69%	22%		
C				

however, particularly for unemployment rates: federally funded sites have higher levels of unemployment than those with 50% or more Aboriginal people and they are similar to non-Aboriginal sites in the north. The latter result is most pronounced for non-Aboriginal sites with non-Aboriginal radius CSDs. These figures raise the question regarding the most important factors contributing to the differences found: federal funding, Aboriginal status, or location. The answer at this point, is unclear.

As shown in Table 1, The five sample CSDs demonstrate similar trends and some of the potential variation. Participation rates range from a low of 39% (Indian Brook), to a high of 77% (Upper Liard). Unemployment rates range from 15% (Upper Liard) to 43% (Soowahlie). These figures indicate that the sample communities reflect an adequate range of variation around the

Analysis of variance shows that the Aboriginal status of the target CSD, the geographical location, and the Aboriginal status of radius CSDs are all significantly related to variations in the labour force participation rate and the unemployment rate. Most of the interaction rates are also significant.

national figures for conducting comparative analysis in the detailed study.

Table 1: Selected Employment Information for Sample Sites - 1991

Participation Rate		Unemployment Rate		
	site	radius	site	radius
Indian Brook	39%	65 %	33%	13%
Okanese	47%	62 %	27%	9%
Soowahlie	64%	60%	43%	22%
Upper Liard	77%	74%	15%	25%
Arctic Bay	56%	87%	19%	6%

The distribution of employment in First Nations communities is marked by heavy dependence on a narrow range of industries (Table 2). Representation of manufacturing, retailing, and most of the other industries is relatively low in Aboriginal communities. On the other hand, participation in government services is markedly higher in federally-funded Aboriginal CSDs (40%) and in other Aboriginal CSDs (32%) by comparison to non-Aboriginal CSDs (7%). These figures reflect the historical and legal relationship of First Nations with the federal government and the heavy dependence in native communities on federal government economic programs.

Table 2: % Industry Employment by Type of CSD - 1991

	% Federally Funded	% >50% Aboriginal	% non- Aboriginal
Agriculture and related services	3	0	13
Fishing and trapping	3	2	2
Logging and forestry	5	2	2
Mining, milling, quarrying, and oil wells	1	3	2
Manufacturing	6	2	14
Construction	7	6	6
Transportation and storage	3	4	5
Communications and utilities	1	4	2
Wholesale trade	1	1	3
Retail trade	6	9	11
Finance and insurance	0	1	2
Real estate and insurance agent	0	0	1
Business service	1	1	2
Government service	40	32	7
Educational service	8	13	6
Health and social service	5	6	7
Accommodation, food and beverage	5	5	6
Other services	5	9	9

The sample CSDs reflect these special characteristics of First Nations history as well as the regional economies in which each First Nation is involved. Indian Brook has 39% of the participating population engaged in government services while construction comes second at 25%. Agriculture, finance, logging, mining are not even represented in the data. Okanese also shows 56% participation in government services with the only other occupation indicated being accommodation and food. This stands in marked contrast to the surrounding CSD's where agriculture, construction, retail, education and health predominate. Soowahlie continues to show

high participation in government services (42%) but fishing (13%), logging (13%), construction (13%), and wholesale activities (13%) are also important. On the other hand the surrounding CSD's are also involved in agriculture, manufacturing, transportation, retail, education, health and accommodation and food. Upper Liard shows a much more diverse economy with the same dependence on government services (35%). Five industries are highly represented in the community: construction (15%), accommodations and food (15%), fishing (10%), manufacturing (10%), and retail (10%). This stands in marked contrast to the surrounding CSDs where logging, mining, business and education represent the major activities. Finally, the data from Arctic Bay is skewed by its proximity to the single resource mining community of Nanisivik. While 76% of the Nanisivik CSD is involved in mining only 17% of Arctic Bay commutes to work in this industry. Internally Arctic Bay shows 27% involvement in government services while education (20%), retail (12%), transportation (7%), and communication (7%) follow.

We conducted a discriminant analysis to investigate the extent to which federally funded First Nations economies differ from those of other Aboriginal and rural CSDs (cf. Figure 3). Seventeen of the 27 economic variables remained in the final analysis. They served to identify two dimensions which differentiated the three groups. The major distinguishing characteristics between federally funded CSDs and those with more than 50% Aboriginal peoples were the participation rate and the extent to which people work in a CSD which is different than that of their residence. Those in federally funded CSDs are less likely to participate in the labour force, but those who do are more likely to commute to a different CSD from their residence. Other rural CSDs largely fall between these two extremes. The percent working in government service industries, and residential mobility were important bases for differentiating non-Aboriginal rural CSDs from the other two. Aboriginal CSDs had lower participation rates, a higher proportion of people working in government service industries, and they were more likely to have moved residence between 1986

⁹ Receipt of government transfer payments was excluded from the analysis.

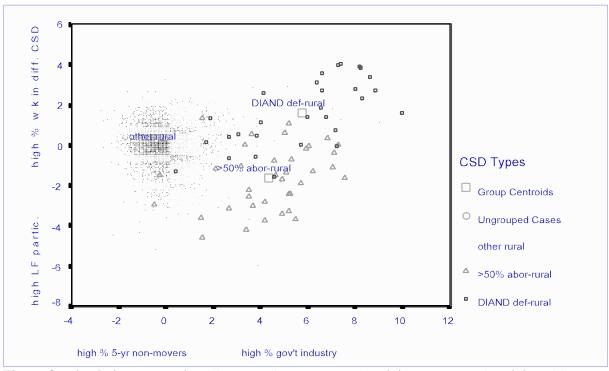


Figure 3: Discriminant analysis of federally-funded, other Aboriginal, and non-Aboriginal CSDs.

and 1991.

In summary, the discriminant analysis highlights the importance of government support through employment as a feature of Aboriginal economies. It also implies that residential mobility and short-distance commuting are likely to be important distinguishing characteristics

of First Nations economies. Both of these characteristics suggest compatibilities with the operation of a local domestic economy and a lack of local employment. They also reinforce the importance of including the characteristics of nearby economies in our analysis.

In order to investigate the industrial similarity between First Nations communities and their radius CSDs, we constructed an index based on the 18 industries identified in the CSD census data. The

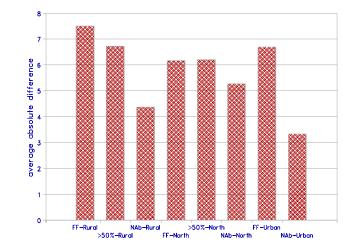


Figure 4: Industry Dissimilarity Index by Types of Target Communities

index was the summation of the absolute value difference between the target CSD and each of its radius CSDs for all 18 industries. The higher the index, the more dissimilar are the target and radius communities with respect to employment. An analysis of these values indicates that there are some important differences in the industrial structure of these communities (Figure 4). These differences do not reflect the Aboriginal status nor the location of the communities alone, however. In fact the communities most like their radius CSDs are those which are >50% Aboriginal in rural areas, and those which are federally funded communities in urban areas.

The variation in these results becomes even more pronounced when we consider the characteristics of the radius communities (cf. Figure 5). Large differences in similarity emerge within non-Aboriginal CSDs in rural areas, federally funded CSDs in the North, non-Aboriginal CSDs in the North, and non-Aboriginal CSDs in urban regions. In addition, the directions of these differences indicate potentially complex relations with the type of the radius CSD: if the radius is a non-Aboriginal CSD, it generally means that the industrial structure is more

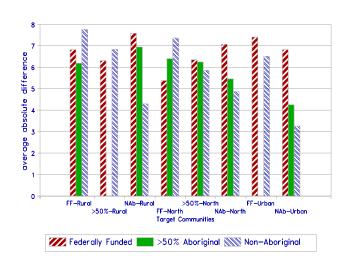


Figure 5: Industry Dissimilarity Index by Target and Radius CSDs

similar, except for target sites which are rural Aboriginal and northern federally-funded; if the radius is federally funded, it is more likely to be dissimilar in those cases. Much more detailed examination of the results is necessary to understand them, particularly with respect to the nature of local relationships which they reflect. The examination is likely to be most fruitful if it were done using a combination of macro-level analysis to identify the general trends and make the necessary comparisons, and micro-level analysis to identify the local conditions and relations which underlie the comparisons.

The figures regarding people working part-time or part of the year are particularly puzzling. Only Indian Brook and Arctic Bay report part-time/part-year figures. Both of them are double that of the surrounding communities. Okanese, Soowahlie, and Upper Liard do not report any part-time/part-year labour force participation. This may be a feature of how the questions were understood and answered or it may reflect peculiar characteristics of each of these economies that calls for closer observation.

The general data suggest that the extent of part-time or part-year work within federally funded CSDs is lower than other types of CSDs, except for those in the North. If this is considered with respect to the type of radius community, additional differences emerge, particularly with respect to rural locations. If rural federally funded CSDs have federally funded neighbours, the percentage of part-time workers drops to 16% from 28%. If their neighbours are non-federally funded Aboriginal CSDs, the rate increases to 54%. The

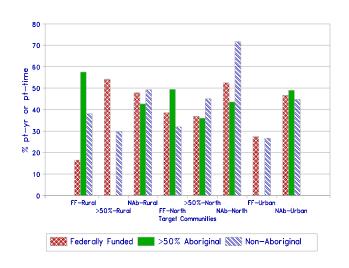


Figure 6: % Part-Time or Part-Year Workers by Type of Target and Radius CSD - 1991

opposite pattern is shown for those CSDs with more than 50% who are Aboriginal. Once again, we are left with findings that suggest important interaction effects between the type of target communities and their radius CSDs. Understanding the processes behind these results will require more detailed work.

The high unemployment rates, low participation rates, and narrow focus on a limited number of industries (especially government services) indicate that the wage labour sector of the economy is experienced very differently within First Nations communities than in other rural communities. The significance of these

Analysis of variance reveals that Aboriginal status, rural/north/urban status, and the type of radius CSD have significant independent and interaction effects on part-time and part-year employment. Only the interaction effect between Aboriginal and rural/north/urban status is not significant.

figures can only be understood in relation to the domestic production outlined above. The value of country food and other products produced through the domestic economy is likely to offset and balance the low earning in the wage labour economy (Myers 1982; Quigley and McBride 1987). Participation in the wage labour economy may only be to provide capital and support for participation in domestic production. This would be reflected in high levels of part-time/part-year labour participation. On the other hand low levels of participation in the wage sector and high levels of participation in domestic production may also reflect the lack of available jobs in both rural and particularly Aboriginal communities. The RCAP points to a discrepancy between the location of jobs and the labour force. Most new jobs are being created in urban areas whereas most reserves in Canada are located in rural

areas (1996: 806). Stabler's (1989) analysis of the N.W.T. economy suggests that the data do not allow one to determine whether the figures reflect the operation of a domestic production economy, the lack of jobs, or both.

Research Ouestions

- C Do First Nations communities share more characteristics with each other or with rural (as opposed to urban) communities?
- C To what extent does the isolation of northern communities reduce the differences between various communities?
- C Which types of people in First Nations communities are included in the domestic economy or the formal economy? What types of people are excluded from these?
- CCC How is wage labour used to support the informal economy?
- How does the informal economy support wage labour?
- How does the similarity of industry in the target and radius communities relate to the level of integration or isolation?

6.4. Commuting Patterns

The results from an examination of commuting patterns are quite limited since the only data available to us did not identify the CSDs where the employment was located. Consequently, they can be used as a rough indicator of the distance travelled, but not the direction. In general, First Nations CSDs show a higher percentage of people who are employed in a different census subdivision, within the same census division as their residence. Indian Brook varies from this pattern since it has a high proportion of people who are employed in a different CSD, and a low percentage working in the same census division. This suggests that there is a high proportion of people who work outside their census division, most likely on a partyear basis. Such a pattern may signal an important variation in economic integration where the labour integration is not in nearby communities, but occurs over longer distances.

The type of radius CSD appears to have a moderate effect on this pattern (cf. Figure 7). For those CSDs neighbouring on federally funded CSDs, the percentage commuting increases, while for those neighbouring on non-Aboriginal CSDs, the percentage drops. This is most pronounced in the case of rural target CSDs which are federally funded. A closer examination of the conditions of such workrelated travel would be necessary to determine

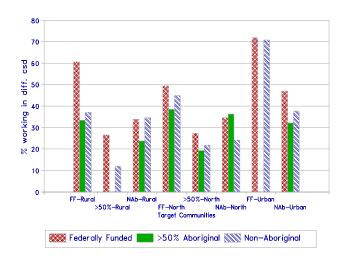


Figure 7: % Working in Different CSD, same CD by Type of Target CSD

whether this represents exclusionary behaviour, or strategic choices among those in First Nations communities.

There is some variation in residential migration among the five CSDs in the NRE sample. In general the First Nations CSDs show higher levels of migration than their surrounding CSDs, but this is not consistent through all the sites. For example, Indian Brook, Soowahlie, and Arctic Bay show lower levels of migration whereas Upper Laird varies little from its surrounding CSDs.

This variation is reflected in the general data, but primarily for short term movement. In general, non-Aboriginal CSDs show lower levels of 1-year migration than Aboriginal CSDs. This was also the result for 5-year migration, except for target CSDs in urban regions. One intriguing difference emerged when the nature of the radius CSDs were considered. Rural CSDs with a high proportion of Aboriginal people showed relatively

Migration - 1991			
	1-yr	5-yr	
Fed.Funded-Rural	1 7 %	43%	
>50% AbRural	27%	38%	
Non-AborigRural	10%	31%	
Fed.Funded-North	20%	49%	
>50% AbNorth	21%	45%	
Non-AborigNorth	11%	30%	
Fed.Funded-Urban	15%	46%	
Non-Aborig-Urban	13%	43%	
C			

high levels of 1-year migration and relatively low levels of 5-year migration if they had federally funded neighbours. On the other hand they showed relatively low levels of 1-year migration and relatively high levels of 5-year migration if they had non-Aboriginal neighbours. Given that we are unable to determine their point of origin with this data, it is not possible to determine whether the migration was from a neighbouring CSD.

Research Questions

- C What patterns of commuting occur for those people within First Nations communities?
- C What patterns of migration occur for those people within First Nations communities?
- C To what extent are these patterns influenced by job-related, environment-related, or social-related factors?
- C How might transaction costs differ with respect to the various types of target and radius CSDs?
- C To what extent is there a relationship between government employment and commuting? What are its effects?
- C What are the characteristics of those who commute or migrate?

6.5. Land Interests and Control

One of the keys to any rural economy is use and ownership of the land and access to other natural resources (including mineral and timber rights) that provide an economic base for the community. As has been noted in Section 3.2, First Nations lands are vested in the Crown and outside of the control of the community. Private ownership of land is not possible although location tickets are issued to recognise the rights of particular people to use particular lands. Although private ownership of

land and resources is a central feature of capitalist production, the Canadian legal system does not allow it for First Nations, nor does it provide for alternative means of ownership that would encompass communal control of lands in the economic process.

First Nations control of and access to mineral, timber, and wildlife resources, is currently under legal dispute and therefore restricted. "Keep in mind that even if there is access to Crown lands near reserves, those locations may not be available for Aboriginal development" (RCAP 1996: 811). Thus, while First Nations lands may be sited on valuable resources, this does not mean that their communities will benefit from the development of those resources since the disposition of access to minerals, timber, and land rests with the federal government. To some extent this is a mute point since many reserves have been deliberately situated away from valuable primary resources. In cases such as the Lubicon Cree of Northern Alberta, where the government failed to establish reserves in the early part of the century, the discovery of valuable oil and gas deposits in the region has made it even more difficult for the First Nations to have their land rights recognised and their reserves surveyed.

Access to land and resources is essential to the economic well-being of any community and where this is denied or restricted one would expect to see the severe underdevelopment that occurs in contemporary Aboriginal communities. Land and resources as a basic infrastructural condition for economic development are simply not available to many First Nations economies further increasing their isolation from the national economy.

Research Questions

- C How do different structures of entitlements to land and resources affect the economic integration and isolation of First Nations communities?
- C How have control disputes over land and resources affected the local relations of First Nations communities?

6.6. Government Money

First Nations communities show considerable dependency on government transfer payments but there are important qualifications which can be made to this generalization. The RCAP discusses welfare dependence from historical (1996: 972) and contemporary perspectives (800). Social assistance varies by region. For example, in Ontario 23% of Aboriginal peoples receive transfer payments compared to 74% in the Maritimes (807). These can take a number of forms including universal programs such as Family Allowance Payments, Old Age Security, and Unemployment Insurance, as well as targeted programs such as welfare payments, treaty payments, and payments arising out of land claims settlements. In most Aboriginal communities such transfer payments do not carry the social stigma associated with them in non-native communities and are frequently seen as entitlements arising out of the fiduciary responsibility of the federal government and compensation for the seizure of First Nations lands.

The available data on the five sample communities shows similar puzzling patterns to that of the part-time/part-year labour participation figures. Okanese, Soowahlie, and Upper Liard do not report any government transfer payments, while the surrounding CSD's do. Indian Brook indicates that 42% of the population receive such payments: double that of the surrounding communities. Arctic Bay shows that 11% of the population receive government transfers, almost 5 times the number in Nanisivik. There is clearly a problem in the data here since Okanese, Soowahlie, and Upper Liard would be entitled to the universal programs even if they received no other transfers.

The general CSD data also reveal some intriguing variations when the types of radius CSDs are considered. For example, the presence of non-Aboriginal CSDs dramatically increases the percent receiving transfer payments for federally-funded rural and non-Aboriginal northern locations, but it reduces the percentage for those which have greater than 50% Aboriginal populations. A closer examination of such variations will not only help us understand the bases for the differences, but it will contribute insights regarding other features of First Nations economies.

Along with domestic production and wage labour, government transfers represent another available option within the complex economies of First Nations. Government transfers are an important source of cash to support the domestic economy and maintain people during periods of unemployment. In cases such as the Quebec Cree Income Security Program, government transfers are explicitly designed to provide an income for those people who choose to remain a part of the subsistence economy and have few other sources of income. In this case, participants in the program are explicitly excluded from any but universal transfer programs. Quigley and McBride (1987) argue that such programs must be expanded to support traditional harvesting in an era of rising costs.

Research Questions

- C What forms of government transfers occur in First Nations communities (including finances and services by all levels of government)?
- C In what ways do government transfers support or distort the informal and formal economies?
- C How do government transfers encourage or inhibit the integration or isolation of First Nations communities?

6.7. Business Developments

Business development is weak on reserves. As a result, much of the money flowing into reserves leaves soon after into nearby, non-reserve communities. This "leakage" may represent up to 90% of the moneys going into a reserve (RCAP 1996: 813).

One of the reasons for lack of business development on reserves is the difficulty in obtaining capital to underwrite business ventures. Most entrepreneurs must therefore rely on loan programs from the federal government which have proved to be extraordinarily restrictive because of the specific requirements of the programs and the bureaucratic obstacles for obtaining and implementing the loans (see Driben and

Trudeau, 1983, for a sustained critique of these programs). The high rate of business failure might also be attributed to lack of training and skills in business administration and accounting causing many to default on the loans. A final feature that has created problems for businesses on reserves has been the ongoing kinship obligations of the owners who are obliged to provide goods and services, and a share in any profits, to anyone who might be related.

With weak on-reserve business development, members of First Nations communities are forced to spend whatever income they have in adjacent communities.

Reserve economies are largely isolated from the economies of surrounding regions except as consumers of goods and services produced outside the community or occasionally as hosts to leaseholders, cottagers or bingo players. They do not supply manufactured goods or services to the region, their residents are not employed by the non-Aboriginal drugstores and supermarkets that profit from sales to Aboriginal people, and local or regional development agencies are typically ignorant of the First Nation economy in their midst, even if it is significant in dollar terms. While occasionally a regional development authority might have an Aboriginal representative or even an Aboriginal sub-committee, there is not much evidence that these linkages are leading to significant development. (RCAP 1986: 813)

The extent and nature of business developments can only be determined after detailed study of particular locales. In keeping with the structure of First Nations economies, such an analysis would have to include an examination of the ways in which informal and kin relationships contribute to or discourage the establishment and growth of business enterprises.

Research Questions

- C What are the major forms of business development which have occurred in First Nations communities?
- C How do they compare to other rural business activities?
- C How successful are they?
- C To what extent do they utilize local culture and networks, and regional networks, both formal and informal?

6.8. Commercial Consumption

Data on commercial consumption is only available from the communities of Indian Brook, Soowahlie, and Arctic Bay in the sample sites. Together these three communities represent the extremes of the potential for "leakage" of income from the community to those in the surrounding area. Indian Brook shows that most of the purchases are made outside of the community, while Arctic Bay shows that nearly all purchases are made within the community. Arctic Bay represents an isolated community where there is simply nowhere else to shop other than Nanisivik which has a Northern Store similar to that in Arctic Bay. Soowahlie represents an

intermediate case where much of the purchasing takes place within the community with the exception of car repair and entertainment where money is spent outside the community.

The Aboriginal Community Profile includes information on the consumer items purchased and whether they were purchased within the community or outside. This provides one of the most useful sources of information currently available for making comparisons between communities. It shows, for example, that relatively high levels of community purchases are made in Aboriginal communities which are not federally funded, whereas relatively low levels are made in federally funded communities, no matter

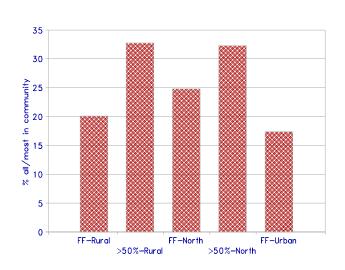


Figure 8: % All or Most Purchase in Community by Target CSDs

where they are located (cf. Figure 8). It also shows that there is some variation in this pattern depending on the type of neighbouring CSD involved. For example, if the radius CSD is non-Aboriginal, the level of purchasing within the target community is lower. This occurs to a greater or smaller extent across locations.

It is unclear from this data why these patterns exist. It may be due to the availability of consumer items, the economic structure of the various types of communities, or social preferences or prejudices which guide the choices. Some of the clues may emerge from a more detailed examination of the specific consumer items included in the ACP, but much of the information required must be gathered on the site.

Research Questions

- C Where are purchases made by those living in First Nations communities? Why are the purchases made in those locations? To what extent are they influenced by price, location, information, or social or cultural factors?
- C What are the amounts of money involved?
- C What purchases are made in First Nations communities by those who live outside the community? Who is buying? This is especially relevant for retail and accommodation industries.

6.9. Infrastructure

One of the notable features of First Nations communities is the poor development of public infrastructure. This refers to the development of roads, running water, sewage, schools, and most particularly basic housing needs. Each of these features is clearly quantifiable and has been used as a measure of poverty or socio-economic well being (Armstrong and Rogers 1996). The appalling conditions in native communities has led the government¹⁰ to invest large amounts of money into creating the infrastructure, but with the increasing

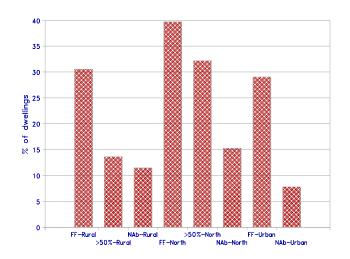


Figure 9: % of Dwellings Needing Major Repairs by Type of Target CSD

populations these investments have lagged behind the rest of the population of Canada. This is reflected in the high percentage of dwellings needing major repairs in federally-funded sites. Only among northern sites with a high percentage of Aboriginal people is the level as high.

One of the greatest difficulties in providing infrastructure has been the remoteness of Aboriginal communities. Those areas in the north where only fly-in service is possible have proved to be particularly difficult to provide and maintain even the most minimal services. Engineering problems of soil, permafrost, water sources, and terrain have created extensive problems in developing services in these communities. On the other hand, such problems can clearly be overcome as is evident in the many single resource communities built jointly by industry and the government in the north. These often have a full range of services and amenities to attract a stable work force from the south. As shown in Figure 9, non-Aboriginal sites have the lowest level of dwellings needing major repairs, even in the north.

The infrastructural underdevelopment of First Nations communities again distinguishes them from other rural communities in Canada. The need for substantial

federal and provincial governments since.

¹⁰ Not only the government has been involved. The Grand Council of the Crees of Quebec found that a large proportion of the \$75 million settlement they received in the face of the Hydro Quebec development was largely absorbed by simply trying to provide the minimal municipal services within their nine communities. This left very little over for other forms of development in the communities and has been a source of dispute between the Crees and the

capital investment to match the services provided in the other types of communities has proved to be beyond the governments' ability, especially during times of fiscal restraint. Aboriginal economies are thus marked by their inability to respond rapidly to other sorts of market and industrial shifts because the basic needs of the community have yet to be provided.

Research Questions

- C What is the nature and adequacy of social and business infrastructure on First Nations communities?
- C What public services are provided? How accessible are they? Where are they?
- C Who uses the services? What are the costs for t Why have federally-fur
- C What are the costs for the infrastructure? Who pays?
- C Why have federally-funded sites lagged behind in providing adequate levels of infrastructure?

6.10. Implications for a First Nations Economy

In North America we tend to accept, without question, what a community's economy should look like. Low unemployment rates coupled with high labour force participation rates are two indicators frequently understood to mean that things are going well. Aboriginal communities in particular, whether or not by choice, often have different relationships to wage employment. Subsistence production is a very important part of many Aboriginal communities and requires alternative relationships to employment. Seasonal wage work is often the only work available for many people in Aboriginal communities and it is work that is also often consistent with subsistence practices. The formal cash economy serves to support these subsistence economies. The cash is required for living expenses on the off-season, for the purchase of equipment for hunting and fishing, and as a basis for maintaining important social support networks. Earning cash through employment is not a means to an end in itself but is a means for financing an informal economy (Myers 1982; Quigley and McBride 1987; Reeves 1993).

Indicators showing that Aboriginal communities are less than fully engaged in the wage economy are often interpreted to mean that they are "half" or "semi-economies". On the other hand, the communities may simply be engaged in economies that are hidden from conventional economic indicators. These indicators are insensitive to the exchange of subsistence products, such as country food, that have important material and cultural values for community members.

Each of the elements of domestic production, wage labour, government transfers, and business development, indicate that First Nations have developed a number of strategies to take advantage of all aspects of the environment to sustain a unique way of life. From the point of view of the individual, a number of options are kept open to account for contingencies in the availability of work and the natural cycles within the domestic sphere. This has recently been referred to as "foraging for cash" whereby an individual will make use of any available resource to procure sufficient cash to undertake activities they hold as personally or culturally significant. The

strategies related to information gathering, searching for, procuring, and distributing cash are metaphorically equivalent to those used by foragers to harvest prey. All the available options are assessed for their relative productivity and the one most likely to produce results is pursued. This reflects a high level of rationality in what appears to be a disorderly and confusing set of options.

The comprehensive investment of a community in the wage economy may require more sacrifices than community members are prepared to make. Partial or underemployment may be strategic acts to avoid this thorough investment. Aboriginal communities' attachment to a particular region and their desires to remain cohesive are in conflict with an omnipotent economic system that requires the free flow of labour and the use of nature as a resource.

These remarks obviously beg a number of questions about the availability of work in most Aboriginal communities and whether or not unemployment and underemployment are issues of choice. We are not excusing the fact that there are shortages of employment in Aboriginal communities by claiming that the members do not want employment. The scarcity of wage employment in most native communities is problematic, however, we must be sensitive to the complexities of Aboriginal economies. The failure of a community to be thoroughly engaged in the wage economy may not necessarily be in need of repair.

There are other signs that reveal the health of an Aboriginal community. These include participation in subsistence activities and the exchange of subsistence products. Despite the limitations in the quality, there are subsistence economic indicators available that should be included when considering the health of a community's economy.

Research Questions

- C What preferences are expressed by First Nations peoples for the future of their communities, especially with respect to their relations with nearby communities?
- C What preferences are expressed by First Nations people for their personal and household lifestyles?
- C How do different types of First Nations people differ with respect to these preferences?
- What examples of open, successful First Nations communities are there? What examples of closed, successful First Nations communities are there?

7. Conclusion

This review and analysis provides a number of suggestions regarding the important characteristics of First Nations economies and the relationships they have to their neighbours. It also identifies some serious limitations in the currently available information: limits which must be overcome if we are to significantly advance our understanding of the processes affecting the economic and social health of First Nations communities. We will outline these suggestions in the form of four major claims.

Domestic production and informal economic activities are important elements of First Nations Economies

An analysis of available research literature has made clear that domestic production is a significant feature of First Nations economies. The hunting, fishing, gathering, and preserving of food are all aspects of such production as are the fabrication and mending of clothes, the preparation of meals, and the maintenance of housing. Our analysis suggests that the relative importance of these activities varies considerably by Aboriginal status, location, and even by the characteristics of surrounding communities, but in all cases they must be considered as a crucial aspect of First Nations economies.

We also expect that informal economic activities play an important role in First Nations economies. This is not unexpected since a strong domestic economy is likely to exist in a network of relationships which supports the exchange of goods, services, and information outside of the formal structures of government and corporations.

Both the domestic economy and informal economic activities are largely missing from the currently available information, particularly at a national or even regional level. This includes information regarding the types of activities enacted, the types of people who do them, and the various exchanges and supports which are associated with them. Without such information, we are in danger of creating a significantly distorted picture of First Nations economies. Under conditions where domestic or informal economic activities operate, they are likely to significantly affect the strategies adopted for operating in more formal activities. If only the formal activities are visible, we will be unable to understand the processes which lie behind them.

First Nations economies are related in many ways to those of their surrounding regions.

Our analysis also suggests that the structure of First Nations economies are significantly related to those of their surrounding regions. This is supported by the analysis of similarity between First Nations locations and CSDs within 60 kilometres of those locations. Important variations occur between these sites with respect to the industrial employment patterns, the extent of part-time and part-year employment, the level of government transfers, and several other economic indicators. Although similarity between these sites does not in itself indicate considerable integration of economies, to find that it varies by local sites provides sufficient justification for more detailed work.

We are also encouraged in this line of work by more direct indicators of integration and isolation. The movement of labour and patterns of consumption are two which are more sensitive to exchanges and transfers between local sites. Both of these indicators vary by the characteristics of nearby locales, thereby reinforcing the importance of those locales for economic activities.

First Nations economies are significantly related to their geography.

The use of macro-level and comparative analysis has revealed that there are several aspects of First Nations economies that can be better understood if we consider their geographical classification as rural, northern, or urban sites. Self-provisioning, consumption, unemployment, and part-time employment all show variation with respect to this classification, particularly in interaction with the Aboriginal status of their neighbouring CSDs. This means it is not enough to treat Aboriginal communities in isolation if we want to understand the processes and conditions which are most important for their economic activities. Their geographical location will significantly affect the options and opportunities available to them.

These results also raise a question regarding the relative importance of First Nation status in comparison to their identification as rural, northern, or urban communities. The new rural economy may reduce the importance of First Nation status in comparison to their geographical status. If so, then processes affecting all rural communities are likely to play a greater role in the fate of First Nations communities. The only way to investigate such a speculation is by way of comparison between Aboriginal and non-Aboriginal sites. This requires standardized data at both the micro and macro levels.

These results do not answer the question whether First Nations economies are integrated or isolated from their surrounding communities. To answer it, we must go beyond the limitations imposed by current information. We need to determine the extent to which exchanges are made between First Nations and the surrounding communities: exchanges of labour, consumer items, and capital. Only in the case of consumption patterns have we been able to examine such exchanges, and then only for a limited number of communities. We also need to consider the types of complementarities which might emerge from the differences we have found. First Nations economies are much more subsistence-based, with social relations rooted in reciprocal obligations and expectations. It is as yet unclear how this type of economic and social system might articulate with those outside of the reserves and First Nations settlements. Our goal is to search for those types of integration which could mutually benefit all parties. A strategy for that search is proposed in the second report.

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9. Appendix: NRE Sample Sites

9.1. Introduction

There is a total of 5318 rural census subdivisions (CSDs) in Canada. On the bases of theoretical criteria (See Reimer, 1997), 1569 rural CSDs were selected for our sampling grid. From the grid, 32 CSDs were selected for the sample. There were 5 Native communities selected for the sample. This report is a review of a number of characteristics of these communities. These characteristics include: general population characteristics, education, labour force activities, industries and mobility. Commercial and subsistence consumption patterns of three of the five reserves (Indian Brook, Arctic Bay and Soowahlie) were also reviewed. This was possible because these three communities were included in the Aboriginal Communities Profile (Statistics Canada, 1991).

9.2. Indian Brook

Indian Brook is a CSD in Nova Scotia about 60 km north of Halifax, with a population size of 770. This is much smaller than the averages of populations of the CSDs in its radiuses. Table 9.1 shows the average populations, number of CSDs and number of reserves in each radius.

Table 9.1

	Average Population	Number of CSDs	Number of Reserves
Indian Brook	770	1	1
15 km radius	1310	1	0
30 km radius	6823	3	1
45 km radius	7798	7	1
60 km radius	8261	11	2
75 km radius	6705	17	3
90 km radius	6155	31	7

Within Indian Brook's 15 km radius there is one other CSD which has almost twice the population size and is not a reserve; within its 30 km radius there is 1 reserve; within its 60 km radius there are two reserves; within its 75 km radius there are 3 reserves; and between the 75 km radius and the 90 km radius there are 4 reserves.

Population Characteristics

The percentage of residents of Indian Brook identifying with being Aboriginal as a single ethnic origin is 97%. In the CSD within the 15 km radius there are no respondents with this identity. In the 30 km radius the average percentage is 28%. In the 45 to 90 km radiuses the average percentages are between 5 and 12%. The population of Indian Brook is young relative to its neighbouring CSDs. The young dependency ratio is calculated by dividing the number of people under 15 years by

the number of people between 15 and 64 (working aged population), multiplied by 100. The old dependency ratio is calculated by dividing the number of people 65 and older by the number of people between 15 and 64, multiplied by 100. Indian Brook's relatively high young dependency ratio and low old dependency ratio reveals its young population. The percentage of single mothers in Indian Brook is significantly higher than the average percentages of its 6 radiuses. The population growth is much greater than the CSD in its 15 km radius. It is at a similar rate as the average percentages of population growths of the CSDs in the 30 km radius and 90 km radius.

Education

The education level of Indian Brook is slightly lower than its six radiuses. It has the highest percentage of people with no high school certificate and the lowest percentage with high school or post secondary certificates.

Labour Force Activities

The unemployment rate for Indian Brook is relatively high compared to the averages of the CSDs in its 6 radiuses and the participation rate is relatively low. The percentage of workers working part-time or for part of the year is much higher than the average percentages of the CSDs in its radiuses. This difference is especially great (almost double) the percentage of workers in the 15 km radius. The percentage of people in Indian Brook receiving government transfer payments is much greater than the average percentages of the CSDs in its radiuses.

Industries

Two of Indian Brook's industries that stand out as being highly represented are construction and government services. The industries that are not well represented in Indian Brook are wholesale, retail, finance and business.

Mobility

The percentage of workers working in different CSDs in Indian Brook is similar to that of the percentages of its 6 radiuses. However, there are fewer of these commuters in Indian Brook working in the same CD than in the radiuses. This may be because of the type of work of many residents (perhaps seasonal construction) that requires migratory work patterns, or it might simply be a result of the location of the CSD on the Census map.

Indian Brook has slightly fewer people moving in during the past 1 and 5 year periods than in the radius sites.

Commercial Consumption

Table 9.2 shows the total percentages of adults purchasing various commercial items and services over a four week period and the frequency in which these purchases

were made in the community. The first two categories of purchases, buying food from restaurants and from stores, represents a large proportion: 76% of adults bought food from restaurants and 81% bought food from stores over the four week period. Most of these adults bought none or almost none of their food in Indian Brook. With the other 11 categories of purchases, almost all were made outside of the community, with the exceptions of travel and day care.

Table 9.2
Commercial Items Purchased in Community in a 4 Week Period

Commercial Items		Indian Brook	
	Total	All/almost all	None/almost none
Food from restaurants	76%	8%	56%
Food from stores	81%	5%	56%
Gas	54%	0%	90%
Travel	45%	31%	42 %
Car repair	38%	0%	28%
Clothes, shoes, etc.	77%	0%	88%
Home repairs material	28%	0%	79%
Home repair services	17%	0%	65 %
Fishing&hunting equip.	22%	0%	68%
VCR rental or purchase	49%	6%	59%
Entertainment	39%	0%	74%
Haircut	41%	0%	76%
Day care	10%	60%	0%

This table can be used to represent the level of "financial leakage" in the community (Rees, 1988). Financial leakage represents a problem in many Native communities, where financial resources leave communities when residents must purchase goods and services outside. Profits that could be made by resident store owners or service providers and then reinvested through more purchases in the community, are made by businesses outside of the community. According to the table the financial leakage in Indian Brook is high.

Subsistence Consumption

Indian Brook's proportions of meat and fish acquired from hunting and fishing is similar to its radius CSD.

Summary Points:

- C Indian Brook's closest neighbouring CSD is much larger and has no Aboriginal residents.
- C Indian Brook has a relatively young population with low education levels.
- C Its unemployment rate is high, while its labour force participation rate is low.
- C Its major industries are construction and government services.
- C Wholesale, retail and business industries are underrepresented.

C This underrepresentation is reflected in consumption patterns of residents. Residents purchase most of their goods and services outside of the community.

9.3. Okanese

Okanese is a reserve in the middle of Saskatchewan just below the 51 parallel, with a population of 110. This is much smaller than the average populations of the CSDs in its radiuses.

Table 9.3					
	Average Population	Number of CSDs	Number of Reserves		
Okanese	110	1	1		
15 km radius	205	3	3		
30 km radius	318	12	3		
45 km radius	545	29	5		
60 km radius	555	45	8		
75 km radius	751	70	16		
90 km radius	696	97	19		

Table 9.3 shows that within Okanese's 15 km radius there are 3 other CSDs which have a population average slightly higher and are all reserves. Within its 45 km radius there are 5 reserves; within its 60 km radius there are 8 reserves; within its 75 km radius there are 16 reserves; and within the 90 km radius there are 19 reserves.

Population Characteristics

The percentage of residents of Okanese identifying with being Aboriginal, as a single ethnic origin, is 93%. The average percentage of residents of the CSDs in the 15 km radius with this identity is 100%. In the 30 km radius the average percentage is 30%. In the 45 to 90 km radiuses the average percentages are between 21 and 25%. Its relatively high young dependency ratio and low old dependency ratio indicates that it has a young population. The 3 reserves in Okanese's 15 km radius also have a very young population average. The percentage of single mothers in Okanese is higher than the average percentages of its 6 radiuses. The population growth of Okanese is only 1%. In its 30 to 90 km radiuses, there was actually a population decline.

Education

The level of education in Okanese is relatively high. The percentage of those with no high school certificate is low and those with high school or post-secondary certificates is relatively high.

Labour Force Activities

With the exception of the 3 reserves in the 15 km radius, the unemployment rate of Okanese is relatively high compared to the averages of the CSDs in its other

radiuses. The participation rate is relatively low. The percentage of workers working part-time or for part of the year is 0. The percentage of people in Okanese receiving government transfer payments is also 0%.

Industries

The two Okanese industries that stand out as being highly represented are government services and accommodations and food services. These are in fact the only industries that Okanese seems to have. The industries that are significant in the other two radiuses are agriculture, construction, retail, education and health.

Mobility

The percentage of workers working in different CSDs in Okanese is similar to that of the percentages of its 6 radiuses. However, there are many more of these commuters in Okanese working in the same CD as there are in the radiuses. This also may be because of the type of work of many residents that requires migratory work patterns, or it might simply be a result of the location of the CSD on the census map.

Okanese has slightly fewer people moving in during the past 1 year period than in the 3 reserves in the 15 km radius but more than the other radiuses. Okanese has many more people moving in during the past 5 years than all of its radiuses.

Summary Points

- C There are three reserves neighbouring Okanese.
- C Okanese has a relatively young population.
- C It has a high proportion of single mothers.
- C Its education level is relatively high.
- C Not including its three neighbouring reserves, it has a relatively high unemployment rate and a low participation rate.
- C Government services and food and accommodation services are highly represented.
- C Retail, agriculture, construction, education and health are industries that are underrepresented in Okanese.

9.4. Soowahlie

Soowahlie is a CSD in south central British Colombia, about 10 km north of the U.S. border, with a population size of 165. This is much smaller than the average populations of the CSDs in its radiuses. The CSDs in the 75th and 90th radiuses are urban, therefore we did not include them in our analyses.

Table 9.4				
	Average Population	Number of CSDs	Number of Reserves	
Soowahlie	165	1	1	
15 km radius	8421	14	13	

30 km radius	4943	22	18
45 km radius	3994	30	25
60 km radius	3573	37	29

Within Soowahlie's 15 km radius there are 14 other CSDs which have a population average which is over 50 times higher. 13 of these CSDs are reserves. Within its 45 km radius there are 18 reserves; within its 60 km radius there are 29 reserves.

Population Characteristics

The percentage of residents of Soowahlie identifying with being Aboriginal, as a single ethnic origin, is 100%. The average percentage of residents of the CSDs in 15 km radius with this identity is 68%. In the 30 km radius the average percentage is 58%. In the 45 radius the average percentage is 61% and 55% for the 60 km radius. Soowahlie's young dependency ratio is similar to the averages of its radiuses but it has a relatively low old dependency ratio. The percentage of single mothers in Soowahlie is slightly lower than the average percentages of its 4 radiuses. The population increase for Soowahlie is 23%, similar to its radiuses.

Education

The level of education in Soowahlie is relatively high. The percentage of those with no high school certificate is low and those with high school or post-secondary certificates is relatively high.

Labour Force Activities

Soowahlie has relatively high unemployment and participation rates. The percentage of workers working part-time or for part of the year is 0. The percentage of people in Soowahlie receiving government transfer payments is 0%.

Industries

The two industries that stand out as being highly represented in Soowahlie are fishing, logging, construction, wholesale and government services. The industries that are significant in the other two radiuses but are not in Soowahlie are agriculture, manufacturing, transportation, retail, education, health and accommodation and food.

Mobility

The percentage of workers working in different CSDs in Soowahlie is very high: 100% of the workers in this CSD commute and 78% commute within the same CD. This is much higher than its radiuses which range from 70 to 75% commuters. Soowahlie has slightly fewer people moving in during the past 1 and 5 year periods than its radiuses.

Commercial Consumption

Table 9.5 shows that the most frequent purchases of adults over a four week period were food from stores and restaurants, gas, clothes, VCR retails or purchases and haircuts. Those most frequently purchased outside of the community were: entertainment, car repair, haircuts, clothes and food from restaurants and from stores. The financial leakage of Soowahlie is high in some areas such as entertainment and car repair, but is lower in others.

Table 9.5
Commercial Items Purchased in Community in a 4 Week Period

Commercial Items	Soowahlie		
	Total	All/almost	None/almost
Food from restaurants	76%	50%	19%
Food from stores	86%	61%	17%
Gas	76%	50%	13%
Travel	24%	40%	0%
Car repair	33%	57%	43%
Clothes, shoes, etc.	67%	43 %	19%
Home repairs material	19%	50%	0%
Home repair services	4%	67%	0%
Fishing&hunting equip.	14%	33 %	0%
VCR rental or purchase	62%	46%	15%
Entertainment	29%	33%	50%
Haircut	52%	64%	27%
Day care	14%	33%	0%

Subsistence Consumption

Soowahlie's proportion of meat and fish acquired from hunting and fishing is much lower than the average proportion of its radius CSDs; 29% of Soowahlie's Aboriginal residents consumed no meat or fish acquired through subsistence activities; 52% consumed only some meat or fish acquired through subsistence activities; and no residents consumed half or more of meat and fish acquired through these activities, while an average of 31% of Aboriginal residents in the radius CSDs consumed half or more of meat and fish through these activities.

Summary points

- C Soowahlie has 13 neighbouring reserves.
- C Its education level is relatively high.
- C Its unemployment rate is relatively high, while its participation rate is also high.
- C Fishing, logging, construction, wholesale and government services are industries that are highly represented in Soowahlie.
- C Agriculture, manufacturing, transportation, retail, education, health and food and accommodations are industries underrepresented in Soowahlie.
- C A very large proportion of workers in Soowahlie commute to other CSDs.

- C Most purchases made by residents are made within the community. However, a large amount of some purchases, such as entertainment and car repair, are made outside of the community.
- C The reliance on subsistence production for meat and fish consumption in Soowahlie is relatively weak.

9.5. Upper Liard

Upper Liard is a CSD in the Yukon, about 10 km north of the British Colombia border, with a population of 160. This is much smaller than the average populations of the CSDs in its radiuses.

Table 9.6

	Average Population	Number of CSDs	Reserve	Indian Settlement
Upper Liard	160	1	0	0
15 km radius	535	2	0	2
30 km radius	318	4	1	3

Upper Liard is classified as a "settlement" by Statistics Canada. Within Upper Liard's 15 km radius there are 2 other CSDs with an average population size slightly higher and which are both Indian settlements. Within its 45 km radius there are 3 Indian Settlements. Between the 30 and the 90 km radiuses there are no other CSDs.

Population Characteristics

The percentage of residents of Upper Liard identifying themselves as being Aboriginal, as a single ethnic origin, is 88%. The average percentage of residents of the CSDs in the 15 km radius with this identity is 56%. In the 30 km radius the average percentage is 69%. Upper Liard's relatively low young dependency ratio and its relatively high old dependency ratio indicates its older population. The percentage of single mothers in Upper Liard is slightly lower than the average percentages of its 6 radiuses. The population growth of Upper Liard is greater than the CSD averages of both the 15 and 30 km radiuses.

Education

The percentage for those in Upper Liard with no high school is slightly lower than the other sites. The percentage of people with high school or post-secondary certificates is slightly lower than its 15 km radius but is slightly higher than its 30 km radius.

Labour Force Activities

The unemployment rate for Upper Liard is slightly higher than the average for CSDs in the 15 km radius but is lower than the average for its 30 km radius. The participation rate is slightly lower than the average for the 15 km radius but almost

equal with the average for the 30 km radius. The percentage of workers working part-time or for part of the year is 0. The percentage of people in Upper Liard receiving government transfer payments is 0%.

Industries

Six of the industries in Upper Liard that stand out as being highly represented are fishing, manufacturing, construction, retail, government services and accommodations and food. The industries that are significant in the other two radiuses but that are not present in Upper Liard are logging, mining, business and education. The percentage of workers working in different CSDs in Upper Liard is significantly higher than the percentages of its 2 radiuses and many more of these commuters in Upper Liard are working in the same CD as there are in the radiuses. The percentage of people who have moved to Upper Liard and its two radiuses over the last year and 5 years are all around 30%.

Summary Points

- C There are 2 reserves neighbouring Upper Liard.
- C Upper Liard's population is slightly older than its radiuses.
- C It has a slightly higher unemployment rate and a slightly lower participation rate.
- C Fishing, manufacturing, retail and government services are industries with a higher representation.
- C Logging, mining, business and education are underrepresented.
- C A higher proportion of workers in Upper Liard commute than workers in its radius CSDs.

9.6. Arctic Bay

Arctic Bay is a CSD on Baffin Island, North West Territories, with a population size of 540. This is larger than the population of the CSD in its radius.

		Table 9.7	
	Average Population	Number of CSDs	Reserves
Arctic Bay	540	1	0
30 km radius	295	1	0

Arctic Bay is classified as a "hamlet" by Statistics Canada. Within Arctic Bay's 30 km radius there is one CSD which has a smaller population and is not a reserve. Between the 30 and the 90 km radiuses there are no other CSDs.

Population Characteristics

The percentage of residents of Arctic Bay identifying themselves as being Aboriginal, as a single ethnic origin, is 97%. The percentage of residents of the CSD in 30 km radius with this identity is 40%. Arctic Bay has a high young dependency ratio and low old dependency ratio, indicating that it has a young population. The

CSD in the 30 km radius has a relatively low young dependency ratio and a very low old dependency ratio indicating that its population that is of working age is proportionately large. The percentage of single mothers in Arctic Bay is slightly higher than the average percentages of its radius. The population growth of Arctic Bay is greater than the CSD average of its radius, which has actually experienced population loss.

Education

Arctic Bay's education level is much lower than its radius CSD. Over 60% of Arctic Bay adults do not have a high school certificate, while this represents only 36% of its radius CSD's adult population. Only 35% of Arctic Bay's adult population has high school or post-secondary certificates while over 70% of its radius CSD has this.

Labour Force Activities

The unemployment rate of Arctic Bay is higher than the its radius CSD and the participation rate is lower. The percentage of workers working part-time or for part of the year is more than double than that of its radius CSD. The percentage of people in Arctic Bay receiving government transfer payments is also much higher than in its radius CSD.

Industries

The primary industry for Arctic Bay's radius community is mining. 76% of its work force is in this industry while only 17% of Arctic Bay's work force is in mining. However, Arctic Bay dominates a number of other industries, such as: transportation, communication, retail, government services and education.

Mobility

The percentage of workers working different CSDs in Arctic Bay is 23% while the radius CSD is 0. This likely represents that proportion of people working in mining who must commute from Arctic Bay. The percentage of people who have moved to Arctic Bay in the last year is slightly lower than its radius CSD but is much lower for the last 5 years.

Commercial Consumption

The most frequent purchases by adults in Arctic Bay over a four week period were food from stores, clothes, VCR rentals or purchases, and hunting and fishing equipment. All or almost all of the purchases were made in the community.

Table 9.8

Commercial Items Purchased in Community in a 4 Week Period

Arctic Bay

Commercial Items	Arctic	: вау	
	Total	All/almost	None/almost
Food from restaurants	0%	0%	0%
Food from stores	94%	76%	0%
Gas	33%	100%	0%
Travel	18%	89%	0%
Car repair	14%	86%	0%
Clothes, shoes, etc.	76%	84%	0%
Home repairs material	14%	86%	0%
Home repair services	0%	0%	0%
Fishing& hunting equip.	39%	95%	0%
VCR rental or purchase	49%	96%	0%
Entertainment	27%	100%	0%
Haircut	4%	0%	0%
Day care	4%	100%	0%

Subsistence Consumption

Arctic Bay's proportions of meat and fish acquired from hunting and fishing is considerably higher than its radius CSD. Most of Arctic Bay's Aboriginal residents acquire most or all of their meat and fish through subsistence production, while the majority of Nanisivik's Aboriginal residents acquire only some of their meat and fish through these activities.

Summary Points

- C Arctic Bay's only other neighbouring CSD is not a Native community.
- C Arctic Bay has a relatively young population.
- C Between the years 1986 and 1991 it has experienced a population increase, while its neighbouring CSD has experienced a decrease in population size.
- C Its education level is relatively low.
- Its unemployment rate is high, while its participation rate is relatively low.
- C Transportation, communications, retail, government services, and education are industries that are highly represented in Arctic Bay.
- C There are much fewer people working in mining than in its neighbouring CSD.
- C While 23% of workers in Arctic Bay commute, the CSD in its radius has no commuters.
- C Most goods and services are purchased within the community.
- C Arctic Bay residents depend more on subsistence production for meat and fish consumption than the Aboriginal residents of its neighbouring CSD.

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