

**METIS AND RESERVE HOUSING
OF NORTHERN SASKATCHEWAN
A COMPARISON OF QUALITY 1981-1991**

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ABSTRACT

This study investigates differences in the quality of housing stock between Indian Reserves and off-reserve Metis communities in Census Division #18 in northern Saskatchewan between 1981 and 1991. The hypothesis states that Census Division #18 reserve housing is in better condition than Census Division #18 off-reserve community housing. The purpose is to determine if differences exist, identify these differences and determine why they exist. A major problem for all northern Saskatchewan housing is its rapid deterioration rate, largely due to a lack of general maintenance practices and funds.

Since the 1940's, Saskatchewan's northern population has shifted from a land-based nomadic lifestyle living in basic shelters to permanent settlements and modern housing. This has resulted in pressures on governments for social housing in northern Saskatchewan from both Treaty Indians and Metis people. Most Native northerners have been put into a position of dependency upon government for both their social and economic well-being.

The two major social housing programs for northern Saskatchewan will be investigated to determine if they are major factors causing differences in housing quality between

reserve and non-reserve communities. The 'Indian-on-Reserve' housing program is funded by the federal government and delivered to reserves by Indian and Northern Affairs Canada. The 'Rural and Native Housing Program' for Metis communities is jointly funded by the Saskatchewan provincial government and the federal government, and delivered by the provincial government. As a result of differences in housing programs and funding between the two levels of government, sharp variations in the quality of housing stock exists between reserve and non-reserve communities in the same locale.

Census Canada data from the 1980's and a 1991 micro study of Canoe Lake Reserve and the Metis community of Jans Bay are used to test the hypothesis that reserve housing is in better condition than non-reserve Metis housing. Two main methods are used: 1) a housing condition indicator that combines four independent variables into one quantitative measure to show housing deficiencies; 2) an index of dissimilarity which provides a measure of the dissimilarity between individual variables, hence housing conditions. Product-moment correlation and Student's t test are also used to test for differences between reserve and non-reserve community housing.

The results of the analysis confirm the hypothesis that in the 1980's Census Division #18 reserve housing was in better condition than off-reserve Metis housing.

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CHAPTER 1

INTRODUCTION TO THE PROBLEM

INTRODUCTION

This thesis is a study of variations in the condition of housing stock between Indian reserves and non-reserve Metis communities in Census Division #18 in northern Saskatchewan between 1981 and 1991. My purpose is to determine if differences exist, identify these differences and determine why they exist.

In the past fifty years, the Native population of northern Saskatchewan has undertaken a major shift from a nomadic land-based lifestyle with basic shelters to permanent settlements and modern housing. This has resulted in demands on governments for social housing from the two main groups that occupy northern Saskatchewan, Treaty Indians and northern Metis.

Two major housing programs, Indian-On-Reserve for Treaty Indians living on reserves and the Rural and Native Housing Program for the Metis communities, will be looked at to determine if they are major factors causing differences in housing quality between reserve and non-reserve communities. My study looks at this question within the context of Canadian housing policy.

Under the National Housing Act, the provinces are responsible for low-income housing but the federal government is solely responsible for housing on reserves. As a result of differences in housing programs and funding between the two levels of government, sharp variations in the quality of housing stocks exist between reserves and non-reserve communities in the same province and locale.

Rapid deterioration of newly constructed housing is a major problem in the north. As Gigsby and Rosenberg (1978:119) stated: "the adequacy of housing is ... a function of the needs and desires of the occupants as well as the standards set by the government." In 1978, Bourne and Hitchcock (1978:14) noted that "the housing conditions of Canada's Native people are generally the most unsatisfactory and indeed deplorable within the nation." The same holds true for today.

This thesis also discusses dependency theory and the effect that dependency has on northern Saskatchewan housing and lifestyle. Northern Saskatchewan reserves and Metis communities have relied heavily on government support for house construction and maintenance. Without proper maintenance, houses can deteriorate rapidly. Bone and Green (1983) compared government owned Department of Northern Saskatchewan staff housing with Metis owned housing in northern Saskatchewan. They found that 90.8 per cent of Department of Northern Saskatchewan staff housing was classified as in 'good' condition. In comparison, only 52.2

per cent of Metis housing was rated as 'good' and only 34.7 per cent of Metis self-built units. The explanation used by Bone and Green was that the construction of self-built units resulted in lower quality housing, one of the main reasons why government housing programs were required in the first place. Also, the amount of money spent on repairs for government built Metis houses was lower than that of DNS staff housing. Bone and Green attributed the higher deterioration rate of Metis housing to the low income of the homeowners, which prevented them from maintaining their home properly. At the time of the 1976 Housing Needs Survey of Northern Saskatchewan, approximately 900 government dwellings had been built in 34 Metis communities in northern Saskatchewan. Even so, 40 per cent of the housing was in substandard condition requiring replacement or major repairs. This provided a strong argument for the continuation of government subsidized new housing and repair programs (Bone and Green 1983).

1.1 STUDY APPROACHES

This research has four approaches. First, a composite measure will be used to show how housing conditions among northern Saskatchewan settlements vary from non-reserve communities to reserve communities. This is accomplished by creating a "housing conditions indicator" based on 1981 and 1986 Census Canada data and the 1981 Native Summary Tapes. The "housing conditions indicator" combines four census variables

on: 1) the dwellings state of repair; 2) the extent of crowding; 3) the absence or presence of bathrooms; and 4) the absence or presence of central heat. Secondly, a 1990-1991 case study of Canoe Lake Reserve #165 and the Metis community of Jans Bay is combined with census data. This micro study uses an additional 22 variables and extensive interviewing to assess housing quality at Jans Bay and Canoe Lake Reserve. An index of dissimilarity categorizes the variables to assess differences in means between the two populations.

Thirdly, an assessment of the major federal and provincial housing programs takes place. Individuals and agencies involved in policy development and the design/delivery of housing programs for the north have had difficulty responding in a successful way to northern circumstances. Southern policies and programs have floundered time and again, only to be reworked and tried once again. The phrase 'these were not designed for the north' is frequently voiced. What are the factors that make housing circumstances in the north different? Which housing programs have been most successful in northern Saskatchewan and why? These questions are largely answered by using Census Canada data and interviewing housing authorities and northern residents.

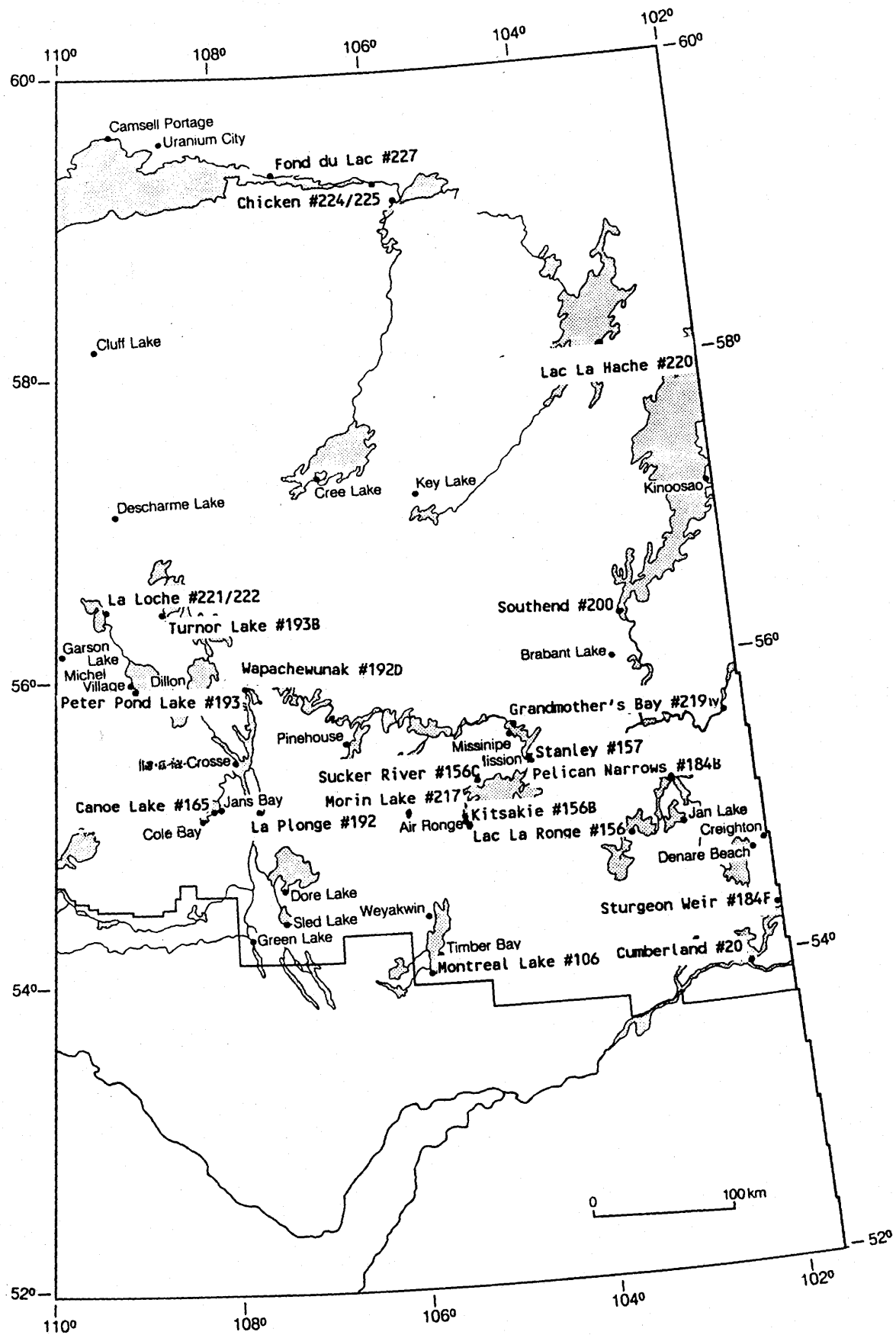
Fourthly, and perhaps most important is the issue of "dependency", where northerners are very dependent upon government support for new housing and maintenance. This concept is based on the danger of artificially isolating

housing problems from the overall system of factors that underlie Native living conditions. This must not be overlooked. Canadian institutions and their structures have determined much of the economic and social position of natives since Europeans infringed upon their culture and lands. All has led to a high degree of dependency for Natives, as well as forcing them into positions of marginality (Bolari and Li 1988). This dependency relationship will be discussed throughout this study to achieve a better understanding of housing circumstances in northern Saskatchewan.

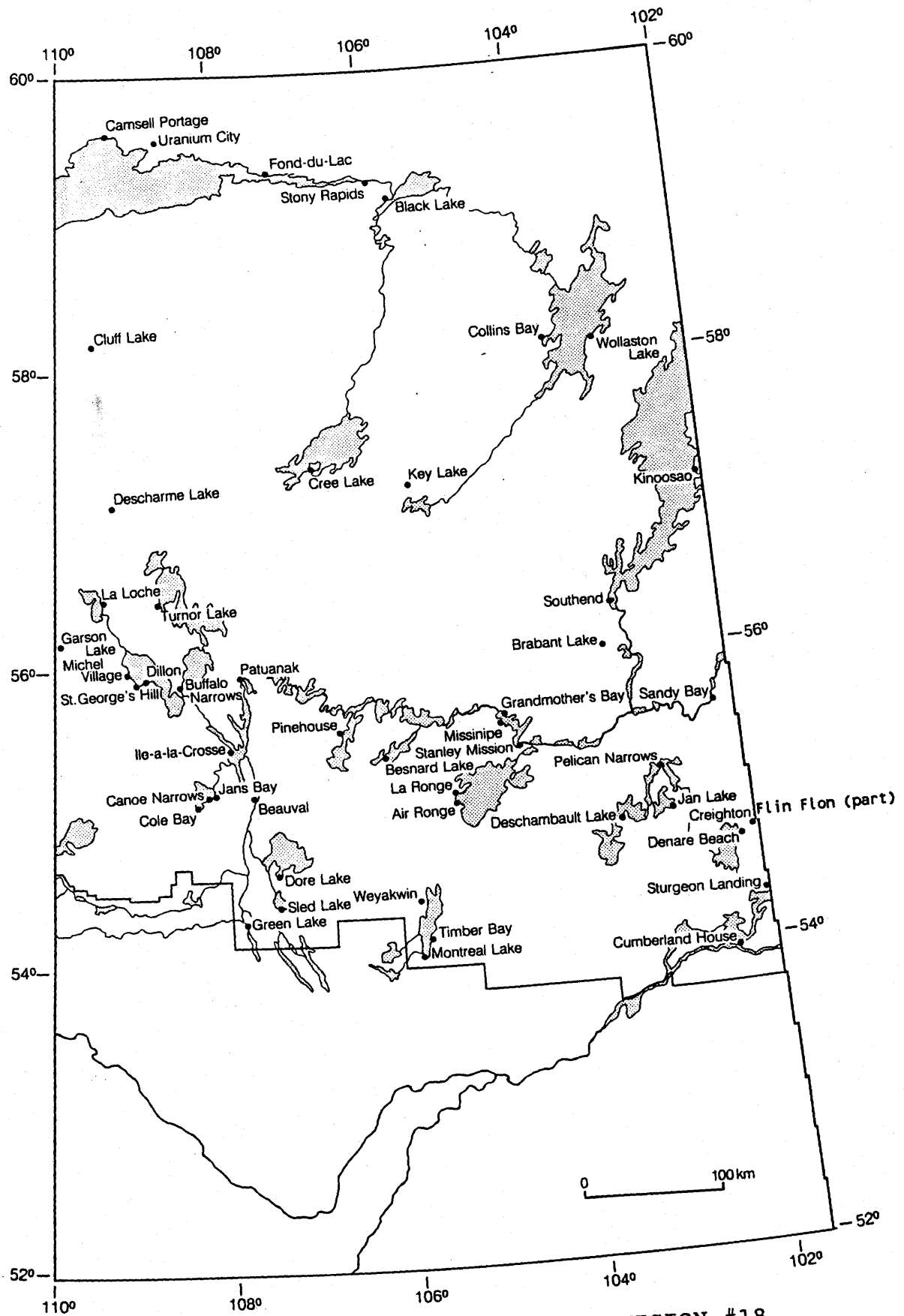
1.2 STUDY AREA AND STUDY GROUP

The study area consists of the northern village of Jans Bay and Canoe Lake Reserve #165. The region of northern Saskatchewan known as Census Division #18 forms a macro study area (MAP 1 AND MAP 2). Jans Bay village and Canoe Lake Reserve were chosen as a case study because both are Native settlements and both share similiar socio-economic conditions. A comparison of the two centres allows for an evaluation of housing programs (federal and provincial) and a survey to measure the condition of housing in these communities.

At a more general level, CD #18 is a suitable study area for northern housing for a number of reasons. Northern Saskatchewan is a region with a historical and current status as a Native 'hinterland'. It has a small, scattered



MAP 1 RESERVES OF CENSUS DIVISION #18 NORTHERN SASKATCHEWAN



MAP 2 OFF-RESERVE COMMUNITIES OF CENSUS DIVISION #18
NORTHERN SASKATCHEWAN

population, a weak integrated economic system, limited innovative capacity and restricted political skills and strength (Usher 1982).

Northern Saskatchewan is very different from southern Saskatchewan. Although the region accounts for 45% of Saskatchewan's total land area, its population of slightly over 26,000 accounts for less than 3% of Saskatchewan's total population. Native people of Cree, Chipewyan and Metis descent make up 75% of this population. The term Native refers to people with Aboriginal ancestry who are classified as Inuit, Metis, Non-Status Indians and Status Indians (Bone 1992a). This classification is based on the Indian Act (1876) and subsequent events such as Bill C-31. Native people became legal (Status) Indians while others (eg: Metis) were classified as Non-Status Indians. Treaty Indians are Status Indians, such as the band members of Canoe Lake Reserve. Metis and Non-Status Indians are not "registered" under the Indian Act. Being a Status Indian means that the laws of the Indian Act apply to you, giving you both rights and restrictions. While not defined as a Treaty Right, funding for housing for Canoe Lake Reserve residents comes from the federal government to the band. On the other hand, low-income Non-Status Indians and Metis rely on public housing provided by the provincial government.

Approximately 8,800 of Saskatchewan's 21,000 Metis live in C.D. #18 (Census Canada 1981). If La Ronge, Air Ronge, Flin

Flin and Creighton were not exempt, over 90% of Saskatchewan's north would be of Native ancestry. Northern Saskatchewan is unique in that Natives far outnumber non-Natives. Even in the Northwest Territories only 60% of people are Native, and only 20% in the Yukon (Census 1986; Bone 1992). The population is scattered among 27 communities and 20 inhabited reserves, all predominantly Native except La Ronge/Air Ronge (government centers) and Creighton/Flin Flon (mining towns).

In 1986, CD #18 had 38.7% of its population under age 15, the highest in all of northern Canada (compared to 21.3% for Canada). This high dependency ratio puts greater burdens on individuals in their productive years (15 to 64). Northern Saskatchewan has the third highest dependency ratio in all of Canada at 75.1 as compared to the national average of 47. This ratio indicates there are 75.1 persons under age 15 or over age 64 for every 100 persons in their productive years.

A large proportion of each community's population falls within the eligibility requirements of low income housing in Canada (more than 30% of their gross income goes toward shelter). In 1981, over 70% of households in CD #18 had

TABLE 1.1

MEAN INCOME of CD #18 1981 and 1986		
	1981	1986
Reserve	\$14,724	\$19,676
Unorganized	\$17,956	\$25,159
Major Centers	\$24,974	\$33,349

Source: Census Canada 1981 and 1986

incomes of less than \$20,000 per year (Census Canada 1981). See Table 1.1.

Approximately 80% of non-reserve households in northern Saskatchewan are Metis or non-Status Indian, (Northern Saskatchewan Housing Needs Survey 1976-1977; SHC 1991), providing a substantial basis for analyzing the impacts of low income and dependency on Native housing. With the implementation of Bill C-31 in 1985 that gave Treaty status back to a Native women who had married non-Treaty men and lost their Treaty status, a higher number of Census respondents now report their ethnicity as aboriginal. Also, prior to 1981, only the respondents paternal ancestry was to be reported, hence lower numbers with Aboriginal ancestry were reported (Census Canada 1986).

Finally, because the average size of Native families is well above the national average, while their household incomes are generally much below the national average, there is high pressure on dwellings and little money for a family to maintain their home properly. Fifty to sixty percent unemployment is common in northern Saskatchewan. Even those who are employed generally receive low wages and often work at seasonal jobs (NSHNS 1976-1977; Indian and Northern Affairs Canada 1989a). Social welfare assistance and unemployment insurance benefits contribute significantly to the incomes of many households.

One of the reasons why an analysis of northern

Saskatchewan is useful for this type of study is that it is a relatively homogenous region in terms of geographical, cultural and economic capabilities and limitations. Poverty among Native peoples is widespread and evidence to support dualism, and the center/periphery and dependency models of development can be readily found.

The climate is relatively harsh while water, forests and rock (Precambrian Shield) make up a large proportion of the landscape. Fishing, trapping, hunting and handicrafts make up a large part of the traditional northern culture. Other endeavours are limited but include wild rice farming, logging, mining, outfitting, the service sector and various government jobs. The private service sector is the number one employer in northern Saskatchewan, although it too is in part quite seasonal (Leslie McBain, p.c., June 1993).

Harsh climatic settings and low incomes combined with a scarcity of maintenance knowledge and supplies, and geographic isolation make home maintenance difficult for households in northern Saskatchewan.

1.3 HYPOTHESIS

Rapid deterioration of Native housing affects housing quality and is a serious problem. The degree of this problem was well documented in the 1976-1977 Housing Needs Survey of northern Saskatchewan and in many government studies (Bone and Green 1983; Ekos 1985; SHC 1987; DIAND 1988; Ekos 1988; Moore

1991; SHC 1993).

It is thought that housing quality or the rate of housing deterioration can be significantly influenced by different housing programs. If this statement is true, the resulting hypothesis should be true. My hypothesis is:

Census Division #18 reserve housing is in better condition than Census Division #18 off-reserve community housing.

This hypothesis will be tested in two ways: 1) by using a composite measure of four 1981 Census Canada variables and, 2) a case study of Jans Bay community and Canoe Lake Reserve #165 using a structured questionnaire and a physical inspection of the interior and exterior of houses. My contention is that federal government new housing and maintenance programs for reserves have been more effective than provincial government off-reserve housing programs in Census Division #18 in the 1980's.

1.4 THESIS OUTLINE

Chapter Two is a literature review of development. Chapter Three, entitled Housing Theory and Government Policies and Programs gives details on housing theory, the role of government in housing and a description of housing programs on and off-reserve. The historical background, lifestyle changes and economic dependency of the population are discussed in Chapter Four because of the importance of this component. Chapter Five gives details of the data sources incorporated in

the thesis and discusses the relevant variables. Chapter Six discusses the methods used to analyze the data while Chapters Seven and Eight discuss the results of the research. Chapter Nine concludes the study with a summary and observations.

CHAPTER 2

LITERATURE REVIEW ON DEVELOPMENT

INTRODUCTION

In January 1949 American President Harry Truman opened a new era of development for the world. He told the world that the United States must embark "on a bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas" (Esteva 1992:7). Truman's use of the word 'underdeveloped' created a new but sharp contrast between a developed country and an underdeveloped country. Truman held up the United States as an example of a developed country and claimed that other countries must strive to emulate the United States. Truman's vision can undermine confidence in one's culture, self-image and create a struggle to attain something that is virtually unattainable. It is an extremely strong force that can permeate people's and governments' thoughts and behaviors so strongly that it continually reminds them of "what they are not ... and enslave them to others' experiences and dreams" (Esteva 1992:10). Has this largely happened to Canada's Native population?

2.1 DEVELOPMENT IN A GEOGRAPHIC CONTEXT

Development is a multidimensional process occurring over a long period. It involves major changes in social structures, popular attitudes, and national institutions as well as the acceleration of technological innovation, the reduction of inequality, and the eradication of absolute poverty. Sustained economic growth appears to be the triggering device, causing changes in other sectors of society. Todaro (1989) believes that the objective of development is to raise the material aspects and, therefore, the quality of human life. Development is an ongoing process (Bone 1992a).

For geographers, the study of development has two main characteristics not found in other academic disciplines (Bone 1989). First, geographers use the region as a spatial unit and interpret the spatial interaction among variables within the spatial unit and among spatial units. Secondly, a man-land relationship is prominent in geographic development studies, meaning that the physical environment has a bearing on development criteria. Development geography looks at the spatial consequences of economic development in certain regions, and integrates economics with culture and location in order to understand spatial processes and patterns found in different regions of the world. Development geography also recognizes the importance of the historical past, and therefore incorporates a historical, temporal aspect when studying development processes. Johnston (1986:103) defines

development as "a process of becoming and a potential state of being.... development is historical, diverse, complex and contradictory, it is the central feature of the human condition."

2.2 APPROACHES TO DEVELOPMENT THEORY

This section has two major aims. The first is to review the two major conflicting development theories: neo-classical modernization core-periphery (heartland - hinterland) theory and the neo-Marxist dependency theory. Secondly, a short summary of housing theory in a non-market economy will be analyzed to give an understanding of the housing situation in northern Saskatchewan. Public housing will be viewed as an attempt to intervene in the market economy to help Native people survive in better living conditions and to create skills and employment opportunities. Public housing in the north is viewed as an attempt to help break the poverty cycle of the north - better housing leads to better health, is better for education and creates a more positive outlook for the future.

2.3 CORE-PERIPHERY MODERNIZATION MODEL

Core-periphery theory recognizes the uneven spatial aspects of a market economy. Perroux's concept of the growth pole implies a developed core and hinterland. The growth centre could be either a 'natural growth' or an 'induced

growth' created by investment strategy or government policy. Growth and development should then spread from these 'growth poles' to peripheral regions because of the demand for raw materials and expansion. This should help to reduce the economic inequalities in the periphery and help perpetuate development from the spin-off benefits. This core-periphery relationship has been the focus of development theorists such as Myrdal, Hirschmann and Friedmann. Geographers such as McCann (1987), Weissling (1989) and Bone (1992) use the core-periphery framework to study Canadian regionalism.

Hirschmann's 'trickle-down' and 'polarization' effects are the two forces from growth poles that affect the periphery. Trickle-down effects benefit the periphery in the form of growth centres investing in the periphery, while polarization effects are the negative impact of growth to the periphery. Polarization effects include the migration of skilled persons, investment capital and profits to the core from the periphery and the depression of peripheral business activities because of competition from the core. But Hirschmann felt that trickle-down effects were stronger than polarization effects and the peripheral regions would eventually reach a high degree of development.

Myrdal's (1957) 'spread' and 'backwash' effects are similar to Hirschmann's ideas except he felt that the spread effects were stronger than the backwash effects and, because of this, peripheral regions would eventually suffer and the

inequality between heartland and hinterland would continue to grow.

According to Friedmann (1987), growth pole theory is a useful device for public intervention into the economic development of regions. Friedmann views government as the regulator in a break-down of the core-periphery dichotomy by promoting favorable location conditions and encouraging hinterland entrepreneurship.

Growth pole theory served as a basis for much regional development policy in the 1970's. It emphasized initial concentration on fast growing areas, out-migration from economically lagging regions by letting market forces take their natural course for trickle-down effects to peripheral areas. But because northern Canada has no true growth poles, the benefits of spread effects from industrialization and modernization has been largely limited. Geographers would describe an area like northern Saskatchewan as having few positive features for industrialization or modernization.

2.4 NEO-MARXIST DEPENDENCY THEORY

The major alternative to growth centre strategy is the school of neo-Marxists who view the results of growth poles and peripheral regions as the outcome of a capitalist economy based upon exploitation and the accumulation of wealth. Rather than developing the periphery, the process has resulted in exploitation of the periphery and the accumulation of wealth

in core regions with an ever increasing gap between rich and poor regions, all to the detriment of the periphery. Frank (1967) has called this 'the development of underdevelopment'.

Amin (1974 in Gore 1984:124) has called this drain "the continuing primitive accumulation by the centre", creating a climate of dependency, fatalism and resignation in poorer areas, which in turn causes these regions to look outward for help in development (e.g. northern Canada). This process promotes accumulation in core areas, while enforcing a cycle of backwardness in the periphery, hence creating one process with separate related facets (Torado 1981).

Development theories of the 1950's and 1960's were directed towards economic growth and assumed a linear relationship of modernization = westernization = progress (Rimmer and Forbes 1982). Once the restraints to growth were removed 'take-off' should occur and development will follow and create 'bureaucratically rational social entities' out of the 'primitive undifferentiated societies' (Rimmer and Forbes 1982). This modernization theory has largely failed in northern Canada because it ignored the very complex patterns of uneven regional economic development, the limited economic opportunities of the north, and the historical/cultural context in which Aboriginal societies developed. Modernization assumed that 'our way is the best way' (Browett 1980:12). Until recently, modernization shaped policy in northern Canada. Johnston (1986:79) views modernization theory as

follows: "Despite the possibility of increased freedom from crisis of subsistence, modernization has historically implied that people come to exist for production rather than production for people ...". In essence, modernization theory was led by the assumption that societies achieve this transition as a result of the diffusion of Western capital, technology, and political and cultural values (Browett 1980:15).

2.5 OTHER THEORIES OF REGIONAL DEVELOPMENT

Factors such as location, demography, resource endowment, technology and labor force skills all have a significant impact on the development of regions. Perloff and Dodds (1963) coined the phrase 'cumulative advantage' to relate the rate of growth of a region to these factors. Many theories fail to recognize the implications of cumulative advantage in regional development. For example, Innis's 1933 Staple Theory is based on the idea that development will occur through the export of natural resources, which in turn will accentuate economic growth. North's 1955 Export Base Theory views the rate of growth of an area as mainly dependent upon its export base over the long term, and that the multiplier effects of this export base will promote internal development. This leaves the region dependent upon external market forces of demand and internal sources of exports, as is the case of northern Canada.

The phase 'cumulative advantage' has severe implications for northern Canada. Because the geographic nature of a region has a large bearing on the rate of development of that region, factors such as location, labor force skills and transportation systems all have significant impacts (Gore 1984). Since contact with Europeans, a dual economy/society has evolved in the north. In many ways the ideas of dependency theory and hinterland exploitation come to mind as the relationship between the north and the south are examined. The current relationship is a dependency one where the south provides resource development, infrastructure, transfer payments and shelter requirements. Such a severe level of dependency on the south for economic support through social programs, such as public housing programs, is necessary to prevent the appearance of widespread poverty in the north. Indeed, transfer payments allow a minimum level of social well-being.

The later works of Friedmann (1987) discuss the unlikelihood of regional equalization of economies in areas of severe diseconomies- such is a large part of Canada's north. Myrdal and Friedmann viewed regional equality unattainable despite government intervention- the role of government can lessen regional inequalities, not eliminate them altogether. Theoretically then, growth in the north is unlikely to attain the same level as in southern Canada because of the harsh environment, limited resource base and the high cost of

resource development.

Watkin's (1963) staple trap sees the leakage of economic benefits from the north to the south because of a weak business sector in the north. Because most northern industries purchase their supplies from southern manufacturers, and the air commuting of southern workers to the north transfers wages out of the north, secondary effects are transferred outside the north. This limits economic diversification in the north (Watkins 1963; Bone 1992a).

Dualist Theory views uneven regional development as being a result of a thriving capitalist economy outdoing the more stagnant traditional (non-capitalist) economy (Gore 1984). The literature on dualism is generally concerned with either the dual economy which focuses on differences between industries, or with the dual labour market which is concerned with labour market segmentation (Stabler 1989). The dual economy's central theme is that a superior economic system grows at the expense of the less advanced one. The dual labour market views the labour market as being divided into two groups. One side is the primary market in which jobs are characterized by high wages, good working conditions and equity. On the other side is the secondary market which tends to have poor wages and fringe benefits, and little chance of advancement. Lewis (1954) sees inducement for growth from the modern to the traditional sector as good, but the rate of change is largely determined by 'impediments' to interaction such as cultural

and geographic isolation. A.G. Frank and his coalition of dependency theorists disagree with dualists and their isolation explanation. Frank believes that less developed regions remain poor, not because of a lack of integration or isolation from the core, but because of their close ties with the core's system. Frank views trickle-down effects into hinterlands as being largely untrue. Rather, the core regions appropriate economic surplus from the hinterland for their own advantage, eventually leaving the hinterland in a permanent state of underdevelopment (Frank 1967). This may be the case in much of northern Canada.

CHAPTER 3

HOUSING THEORY AND GOVERNMENT POLICIES AND PROGRAMS

INTRODUCTION

Chapter Three discusses housing theory and the evolution of the Canadian government's role in social housing policy and program implementation. Federal housing programs for reserves and provincial housing programs for non-reserve social housing will be presented, along with how final housing decisions are made by reserves and non-reserve communities of northern Saskatchewan.

3.1 HOUSING THEORY AND THE GEOGRAPHY OF HOUSING

The geography of housing looks at the processes through which housing is produced and distributed among people and places, how housing useage has changed over time and space, who benefits from changes, and the implications for government policy (Bourne 1981:1). This thesis primarily looks at the distribution and useage of housing between two separate locations, and the social housing problems of the north. Location, market, credit restrictions, occupant role and behavior, and government housing policies are all important aspects of the geography of housing.

What is housing? Basically, it is a fixed permanent structure that encompasses a complexity of building materials, pipes and wires. Housing takes various structural forms. It is more than simply a product, "it is both an economic and social process" (Beyer 1965:3) that plays a tremendous role in the lives of humans. It represents employment and a livelihood for many people, ranging from material manufacturing, money lending institutions, construction companies and the public utilities sector, to providing shelter for the individual and family units. Almost every person is affected in his/her day-to-day existence by housing. It provides comfort, health, contentment and even aesthetic satisfaction. The idea that 'a person's house is their castle' demonstrates how deeply involved housing is in our social order (Beyer 1965).

Since the late 19th century, poor housing conditions became a major political concern and societal issue in the industrialized world (Bourne 1981:2). The social reform movement of the late 1800's advocated various forms of social housing. Interest in poor housing conditions created a sense of social responsibility to improve the living conditions of the poor. The result was state intervention. Governments established a variety of social housing programs that provide minimum standards of housing quality. Such programs exist today in Canada. The outcome is that social housing cannot be studied in isolation from the political, economic and social fabric of society, but as an intricate part of society itself

(Bourne 1981).

Two ideologies dominate Canadian thinking about housing. (Bourne 1981). First is the notion that housing is strictly an economic or investment good which should be left to the private market. In contrast, the second view believes that housing should be 'somewhat' of a social service providing low income families with an acceptable level of housing quality. This second view is generally what Canadians believe housing should be. But because the provision of housing has become more and more political over the years, different political ideologies have helped to shape housing policies in Canada, making a discussion of housing incomplete without a look at the large social dimension. The following diagram summarizes the types of services that housing supplies in the form of inputs and outputs (Bourne 1981:15).

INPUTS (factors of production)	=MATCHING PROCESS=	OUTPUTS (services)
management		shelter
capital		equity
location		satisfaction
land		local environment
materials		accessibility
labor		health
environment		labor(maintenance, custodial, security)

These inputs and outputs represent housing services to the overall social system, but differ from one location to the next. Clearly, different locations require different intensities of inputs and outputs depending upon the needs

(and wants) of the area involved (Bourne 1981).

Because of the existence of spatial externalities, an evaluation of housing stock cannot be complete without an examination of the local and internal environment as well. In this thesis, a micro study of Jans Bay and Canoe Lake Reserve fulfills this requirement. The 'home' plays a very central role in the activities of its occupants, making the location and type of house, as well as household attitudes very crucial in housing quality and upkeep. Not only is housing shaped by human activity, it also shapes human activities and responses, both individually and collectively (Bourne 1981:23-26).

Once a house is built, aging occurs. Aging is in large part determined by two factors. 1) quality of initial construction and 2) amount of subsequent use and maintenance. The life expectancy of an average Canadian house is fifty to sixty years, but only fifteen years on Indian reserves (CMHC Saskatoon, p.c., March 1991). In the 1970's, the life expectancy of a house was only eight years on Saskatchewan reserves (Sweet Grass Reserve, p.c., July 1991).

Changes in building design, consumer taste, public policy, building code and the building cycle also affect housing and its spatial impression. By monitoring changes in housing conditions over time a measure of the physical condition of a housing stock can be established. A general theme found in this study is that disadvantaged groups tend to be associated with rapidly deteriorating housing.

3.2 ROLE OF GOVERNMENT: HOUSING POLICIES AND AIMS

Governments act as financiers, administrators, regulators, builders and frequently as landlords in housing consumption. The role of the state in Canadian housing is extensive. Why? Largely because a pure market place cannot produce all the needs of a quasi-socialist and politically aware society (Bourne 1981:191). There is much debate in the literature on the rationale of government intervention in housing (Downs, 1975; Stafford 1978; Rose 1981; Friedmann 1987), but essentially it boils down to the dominant ideology of the society in which we live. Regardless of the government of the day, Canadians view housing as an area of social policy. The goal of social housing programs is to provide all Canadians with decent shelter. But all too often otherwise 'adequate' housing becomes inadequate. One reason is a change in housing design. Another is the rapid deterioration of low-income public housing.

Although the housing stock in Canada's north has improved substantially over the past few decades, the concept of adequate housing has also changed, creating a paradox - absolute standards as compared to relative standards. Fifty years ago, the northern housing stock was small in size and contained few amenities. Today the northern housing stock is similiar to standards of quality and size found in southern Canada. Our 'expectations' of a quality house are much different today than they were a few decades ago (e.g. central

heating, indoor plumbing, separate bedrooms for children). Our standards are generally set by what others have. Also, in prosperous times, society worries more about such inequalities (Bourne 1981).

What needs to be studied is the persistent gap in standards between the 'have' and the 'have-nots' of Canadian society. Disparities in the quality of housing in Canada have become more geographically concentrated and the impacts of these are felt more severely by certain groups, e.g. Native Canadians. Only when we consider that many Native people live in areas with few job opportunities and therefore can not obtain housing through the private housing sector does the location factor become more important. Inequalities in housing are most acute among Native Canadians living in remote areas.

According to Dennis and Fish, in 1972 most housing policies and programs in Canada were programs in search of a policy (Dennis and Fish 1972). Even today (1994), the federal and provincial governments have no firm policies on low-income housing and are busy searching for new alternatives (SHC, p.c., August 1994). Social housing in the north is intertwined with government regulations, government programs, government capital, local economic realities and the prevailing social and political attitudes of the country.

Housing policy is in a continual state of flux. A variety of policies and programs, each with their own objectives and means of delivery are directed at different disadvantaged

groups from different levels of government. Frequent policy changes at the federal and provincial levels complicate policy and programs. Often decisions are made outside the housing sector for economic, political or transportation reasons. It is one matter to build housing but a much different matter to design and implement viable communities. Continually changing economic patterns, human preferences, cultural values, employment, social and political ideologies, migration and demographics all affect housing demand and quality making spatially-sensitive studies very intertwined (Beyer 1965; Fallis 1985). Few studies of the northern housing system exist, especially ones which provide a spatial and social environmental dimension.

3.3 POVERTY, HOUSING AND PUBLIC POLICY

Housing was a latecomer to the federal trough. The federal government historically made war, killed Indians, gave away land, tried cases, raised taxes, regulated business, and appropriated money. It hardly ever built houses, except for itself, its soldiers, and its prisoners. But in the last generation or so the federal government has begun to make up for lost time The federal effort now has a ... [crown corporation] of its own - the new status is evidence of a new emphasis - or at least of a nagging feeling in society that something must be done. (L. Friedman in Solomon 1974:29).

Housing is a large, yet volatile source of employment and is one of the major contributors to employment in northern Canada. The role and social priorities attached to housing vary within different societies, but housing is, in the final analysis, for people (Bourne 1981).

John Friedmann (1982) believes that public intervention in the modernization of underdeveloped regions is essential if that region wants to escape from its 'poverty trap'. He sees the poverty trap created by the restrained growth of a regional economy because of the existence of the 'dualistic' centre-periphery structure. Because much of northern Canada has been caught up in this persistent poverty trap, Friedmann sees the critical role of the government is to create the infrastructure for the transition to industrialization. The surplus that remains in the dependent regions does little to stimulate development, and basically only maintains subsistence. Friedmann sees that the only viable approach to northern housing is to view the problem from the participants viewpoint, and to work with them, with support from all sectors of society, to improve their physical environment (Friedmann 1987).

An 'enabling' concept implies that the people concerned will be given the opportunity to improve housing conditions according to the needs and priorities that they themselves see most important (World Development Bank 1988). For the most part, the government's role should be an 'enabling' one, mobilizing the resources of other factors of production and facilitating their deployment for 'efficient' usage. This enabling strategy could also be seen as an essential component in 'sustainable development' (UNCHS, 1988). But because many different interests are at stake - economics, social and

political - they must be directed towards the same aim, that is, to improve the quality of life. Otherwise, diverse strategies can be self-defeating and the poverty cycle not broken.

Housing policies should be built with an understanding of the links between housing and economics (SHC, p.c., March 1991). To build modern housing with public money for people who simply cannot afford to service and maintain them defeats the purpose. Governments have to consider a balanced approach to housing needs and economic capabilities. The narrow focus on modern services and community upgrading schemes as the cornerstone of housing strategies should be reevaluated (INAC, p.c., September 1990).

Although some people disapprove of government intervention in the housing economy, if it was not for an interventionist approach, most Native housing in the north would consist of shanty-like dwellings.

3.4 THE EVOLUTION OF NORTHERN HOUSING POLICY IN CANADA

A specific housing policy for northern Canada has quite a recent history. From as early as the 1938 Dominion Housing Act, government housing policy was intended to apply to all regions of Canada equally, but the different circumstances of the north dictated different policies than the south. The result has been a very slow evolution of northern housing policy (Carter 1992b). Differences between north and south

include: culture, the absence of a functioning market in most towns, Aboriginal rights, different jurisdictional arrangements, environmental differences such as distances, climate, and in some cases the lack of readily accessible building materials. Because of these differences and the more southern orientation of policy makers, northern policy has often been called dysfunctional, inadequate and worthless (Carter 1992a:2). Only since the late 1950's can some features of Canadian housing policy be identified as truly northern.

The post World War II expansion into the north created an awareness of the plight of northerners who had just left a nomadic hunting/trapping lifestyle to become urban dwellers. In this new environment abject poverty and extremely poor housing conditions seriously impaired the integration of northerners into Canadian society. The awareness of Third World slum housing helped to initiate the beginnings of a truly northern housing policy but with two delivery agencies. One is to Treaty Indians on reserves and the other is to low-income Canadians. Housing policies have passed through four main stages.

The first stage, started in the 1950's is described as a 'quick-fix' philosophy, but in the haste to quickly remedy the situation, governments introduced programs which had few, if any, long-term plans or objectives. Most new housing was built in the south and shipped north. Small units of poor construction with inadequate sanitation and heating facilities

were built, and required mortgage or rental payments that northerners could neither afford nor understand (Carter 1992b).

Another initiative was the establishment of growth-centered communities with a concentration of housing and government services, and the relocation of persons from small isolated communities to these government induced growth centers. Integration of the relocated people became a problem. Even though improved services and housing were provided, the new arrivals could not avoid social and personal disruptions resulting from relocation. Overall, substantially improved living conditions occurred but without a substantial increase in income, life in an urban environment proved difficult for many.

The second stage, dating from the mid 1960's to the mid 1970's, shows a stronger government commitment to solving basic northern problems and a greater understanding of the north. Characteristic of this era was the promotion of home ownership programs in northern Saskatchewan and the introduction of rental programs. A rent-to-income policy and home maintenance education programs were initiated. Mortgage/rent-to-income scales were designed to alleviate the affordability problem and reflect the welfare-based and seasonal nature of the northern economy. Home ownership was a key feature for northern Saskatchewan because it was felt that ownership would increase pride and maintenance of housing.

Rent for employed people was based on 20% of their income, while those on social assistance or welfare were charged nominal payments - often as little as a few dollars a month. Southerners were charged 25% of family income because of the lower cost of southern living (Carter 1992b:4-10).

Programs such as the Manitoba Remote Housing Program and the Saskatchewan Metis Housing Program adopted a more holistic approach designed to address unique northern problems. Life skills development, home management, job training through self-help involvement, employment during construction, family involvement and the provision of housing within broader based community development objectives were characteristic of this era (Carter 1992b). The initiatives during this period had major problems such as poor maintenance practices, poor quality construction and serious mortgage arrears but government policy was at least recognizing the unique problems and lifestyles of northerners.

The third stage began by the mid 1970's with the development of a 'home-grown' housing policy. This stage began to emerge because of a growing sensitivity to northern cultural and regional issues. A grass-roots decentralization policy developed a closer relationship with clientele. This period also saw the introduction of the Rural and Native Housing Program with its emphasis on home ownership, mortgages and payments based on income. The RNH program also rehabilitated existing houses, and supplied money for

emergency repairs on a short term basis pending the supply of new housing or more extensive rehabilitation. It also stressed energy efficiency because of the high utility costs of the north, thus improving affordability.

Other features of the RNH program provided training for northerners in project management and program delivery, and the hiring of professionals to assist northern communities and reserves with organizational, administrative, financial and construction abilities. The general purpose was to provide groups with their own expertise to play a more active role in program delivery and planning (Carter 1992b). Overall, the period from the mid 1970's to the early 1980's showed a greater sensitivity to the needs and problems of northerners, and the thrust to get communities more responsible and involved in their own affairs.

Fourthly, since the early 1980's, government funding for social housing has decreased. Yet, despite this fact, housing policy continues to evolve. An example is the federal Demonstration Program that promotes self-help in construction, planning, and design. This self-help approach has been implemented in northern Saskatchewan and reduces or even eliminates mortgages, therefore lowering costs and increasing affordability. Construction participation creates basic skills for future home maintenance and improved employment opportunities. Higher utility allowances have also helped to reduce the problem of housing affordability (SHC 1989). Since

the mid 1980's in northern Saskatchewan, Canada Mortgage and Housing Corporation has become much more involved in rental housing because the philosophy of home ownership has not met with their expectations. Many northerners, because of the costs of mortgages and maintenance, view home ownership as simply a more expensive rental option (SHC, p.c., February 1991; Northerners, p.c., October 1991).

Reserve housing has passed through similiar stages with two major differences - delivery system and mortgage payments. All Treaty reserve housing in northern Saskatchewan is mortgage free and has been delivered by the Department of Indian and Northern Affairs with financing by the federal government. Most low-income privately owned Metis housing is mortgaged, and administered by the provincial government with federal subsidies, although CMHC low-income rentals are financed by the federal government with Saskatchewan Housing Corporation acting as administrator only.

Overall, housing programs in the north have had a dramatic positive impact on the living conditions of northerners. Deterioration and arrears is still a major problem and communities still complain that government is not as responsive to local objectives and construction standards as they would like, but as a result of housing programs, housing has become much improved over the past thirty years.

3.5 SOCIAL HOUSING IN NORTHERN SASKATCHEWAN

When housing policies and programs for the north are developed, the northern parts of the provinces are generally considered as a simple extension of mainstream Canada. Sometimes north-south differences are viewed simply as magnitude, and programs/policies fail to realize that much of the north is structurally and culturally different, mainly due to isolation, economics and the large Native population. The final results are the implementation and continued inefficiency of many well-intentioned programs (Logsdon 1987).

The high cost of housing for northern communities is generally due to high material, transportation and imported skilled labor. Affordability is a problem because many Native households have low and often seasonal incomes. The need for decent housing in the north's cold environment is evident, but because the value and supply of housing is largely affected by a non-market situation, different policies and programs than in the south are required. This has led governments to take on the role of supplier for social housing (Logsdon 1987).

In northern Saskatchewan communities are remote, having a limited system of roadways. Some centres are accessible only by air transportation (Black Lake, Fond du Lac, Stony Rapids, Wollaston Lake). Distances to major centres are large. The population of most communities is predominantly Native with the exceptions of Creighton, Flin Flon (part), Air Ronge and La Ronge. Governments are the major players in supplying

housing. Construction and maintenance costs are high and perhaps beyond the fiscal capacity of governments (CMHC, p.c., October 1992).

Except for the three mining/service centres, personal incomes in CD #18 are low. In 1981, the average income of the three mining/service centers was \$26,312.00 per year, but only \$14,724 for reserves and \$14,832 for small non-reserve communities (Census Canada 1981).

The average cost of utilities is \$250 per month, not including rent or mortgage payments. If a 25% gross income guideline is used for housing costs (this is the percentage set by CMHC) to measure housing affordability, well over one half of the population cannot afford to cover basic utility costs, insurance and maintenance (\$175 per month), which would require an average income of over \$15,000 per year. When the cost of a mortgage is added to maintenance and utility costs, the costs increase to \$800.00 per month. Again, using the 25% income guideline, a monthly income of \$3,200 would be required to operate and service the debt of a house, far beyond the income of a large proportion of Census Division #18 households. Therefore, the great spread between income and expenses prohibits a private housing solution.

What this means is the private sector will not invest in housing units in the north (rents would have to be higher than the ability of most households to pay). The effective demand for housing is much below what it costs to build a house, the

result being few privately owned houses. With no market-determined prices in smaller centers and on reserves, the only real value of a house is its social value. Words like equity, market price and return on investment lose their meanings. Public housing programs in the north often fail because of false market assumptions (Logdson 1987:68).

The only real thing that ownership in a non-market area receives is a mortgaged property that basically has no more value than a rental unit because of the serious lack of resale potential in a non-market economy. This makes monthly mortgage payments no more attractive (other than the sense of ownership) than renting because there is absolutely no realizable return on investment and home owners have to spend scarce resources on maintenance. For many people, home ownership simply means a more expensive rental option because of the personal costs incurred by repairs.

Government owned housing in northern Saskatchewan, if sold, would only get a small fraction of its book value (SHC, p.c., February 1991). Basically, it is a social investment with extremely low market value. There is effectively no market demand for it. Similarly, individual ownership of a house in northern communities is only an investment in household shelter, not a financial investment. Housing in the north does not have the same demand or investment strategy as the south where there is a strong market for houses because housing costs are much higher than what is affordable by a

large proportion of the population, hence creating a non-market situation. Northern housing is viewed as shelter, not as an economic investment. Because of the underlying market assumptions in government housing programs, they are generally ineffective or inefficient in non-market areas (Metis Housing Corp., p.c., September 1990).

3.6 EMPIRICAL STUDIES OF INDIAN AND METIS HOUSING

"The diffusion of ideas, institutions, methods and values from a technically more advanced society to a less advanced one is part of the process of modernization" (Bone 1987:21). This diffusion of development has created far-reaching consequences for Native people in northern Saskatchewan in regards to housing programs. Housing should fit the financial and social needs of the people (Bone 1987:22), not the preconceived notions of the providers.

Extensive research has been conducted on the relationships between socio-economic conditions, cultural parametres, Native mobility and Native politics (Jenness 1932, Rapoport 1969, Frideres 1974, Goodman 1978, Duncan 1981, Ekos 1985, Comeau and Santin 1990) but there is limited research on the relationship between Natives and housing quality and maintenance. This is particularly true for Metis and Non-Status Indians. Much of the literature concerning Native people is on status Indians and is primarily studied as legal, social and urban problems (Wiseman 1982).

Many studies, primarily by the federal government, have focused on reserve housing and government policies for reserves. Most focus on health, education and employment problems on reserves. Studies that deal with off-reserve Native housing in isolated areas include Bailey (1962), Lee-Smith (1975), Northern Saskatchewan Housing Needs Survey (1976-1977), Wiseman (1982), Bone and Green (1983), Chislett (1986) and Moore (1990). These studies discuss such topics as house maintenance, Native assimilation to modern housing and housing type. All studies conclude with the suggestion that more research needs to be done on Native poverty, housing deterioration and assimilation to modern housing. From the mid 1980's to present there has been very few studies done on northern Saskatchewan housing (SHC 1988; INAC 1992). Coupled with that fact, very few houses have been built off-reserve in northern Saskatchewan lately. Since 1986 SHC has quit building new houses and now acts only as administrator for previously build SHC houses and CMHC rental units (SHC, p.c. March 1991). Many Bill C-31 houses have been built on reserves over the past few years, but no statistics on the amount or their impact have been located. Bill C-31 gives Indian Status back to Native women and their children who married Non-Status men and lost their treaty rights and Indian status.

In 1967 a Kennedy-Smith report stated that poor house maintenance and quality are the result of the poverty and culture that Native people live in: "... there are probably

innumerable 'white' values such as privacy, ... and orderly surroundings that are less important or less understood simply because of the more basic needs of shelter, warmth and sanitation are still to be met ... " (Kennedy-Smith 1967:111). Other studies on Native housing and culture state that Native people view their home as a source of shelter and warmth, not as a symbol of prestige and neatness (de Jourdan 1975; Chislett 1985). This could, in part perpetuate the problem of poor maintenance practices in relationship to 'southern values'. Because southerners view house maintenance as a relatively high priority, they equate southern values on housing to northern housing values.

Rapid deterioration is a major problem of Native housing. Major problems have been over-use, insufficient space, improper and cheap construction, and a lack of overall maintenance (Buchanan 1977; SHC 1985; Moore 1990; SHC 1991). The 1976-1977 Housing Needs Survey of northern Saskatchewan found that housing stock deteriorated very rapidly for Metis people. Bone and Green (1983) attributed this high rate of deterioration to the low income of the inhabitants which prevents them from maintaining their homes properly. This argument is also supported by Kirby (1979) who found that the main element in housing deterioration is a "household too impoverished to care for the structure" (Kirby 1979 in Bone and Green 1983:3). These types of results were also obtained by Corbett (1979) in a study on row housing for poor 'white'

Canadians. Because of the financial burden of the clients, there was rapid deterioration, defaults on payments and a lack of assimilation into the community as a whole. A 1985 study of Metis housing by Saskatchewan Housing Corporation found that a serious neglect of maintenance by many homeowners was partly the lack of incentive to undertake repairs because of no financial incentive for a homeowner to fix or improve his house. SHC reported:

The rewards of pride of ownership and comfort of living do not appear to be there in many cases. Whatever the cause of this neglect, be it in the transient nature of some of the northerners, cultural values, or lack of financial incentives, the housing stock is deteriorating and needs repair. (SHC, 1985:15).

Canada Mortgage and Housing Corporation base their housing policy on the premise that "safe, decent and affordable housing is the right of all Canadians" (CMHC 1988:2), but this idea is usually left to the 'providers' and not the 'users' (Bourne 1981). Because the economic, social and political relationship between northern regions and the south is largely controlled by southern Canada, a strong core-hinterland legacy exists in Canada. The north's surplus value, mainly in natural resources is being drained into the core areas, maintaining the process of underdevelopment, which, in turn has had a large effect on northern housing. Lack of economic resources translates into low household income with very little money to maintain expensive modern housing. Government transfer payments, social assistance and

unemployment insurance have created a strong dependency on southern Canada for northern well-being. Many northerners are caught up in the 'poverty trap'.

3.7 HOUSING POLICY IN CANADA

In 1938, the Government of Canada passed the first National Housing Act (NHA), but it was not until 1945 that the crown corporation of Central Mortgage and Housing (now called Canada Mortgage and Housing Corporation) was formed to administer the National Housing Act. Since that time, hundreds of different programs and program changes have been made. This section will give a brief evolution of housing policy in Canada, then conclude with current housing policy.

3.8 FEDERAL HOUSING POLICY 1945-1990

In reviewing the evolution of policies and programs designed to shelter Canadians, three distinct phases emerge. These tend to follow both economic and social trends (Warne 1989). The first phase is based on the 1944 Curtis Report. The report presented Canadian views on social reform and housing reform, prompting a review of the National Housing Act that stated "to promote the construction of new houses, the repair and modernization of existing housing and the improvement of housing and living conditions" (Warne 1989:4).

The second phase saw federal government housing policy shaped by the concern of stabilization and growth following

World War II. Its main policy was to encourage and accomodate economic growth (Fallis 1985:167). Most housing programs during this period were minimal, with very few initiatives for low income housing, including reserves. During the 1950's CMHC direct lending was expanded, public mortgage insurance was introduced and banks entered the mortgage field (Warne 1989). But because many of the poorest households did not improve their living conditions, and Canadian society began to awaken to the plights of the poor, a desire to "spread the benefits of the affluent society" began to emerge, shifting the focus of housing policy (Carver 1975:164).

The third era began in the 1960's when the economy of Canada was quite strong and prosperous. Governments began to shift attention from economic stabilization to social equity (Fallis 1985:170). This era began with concern for the poorer people of society, and generally expanded to help moderate income households. Housing affordability was becoming a problem for many people because of inflation- housing, mortgage and rental prices were rising quickly and governments were increasing housing subsidy programs to more and more people (Fallis 1985). Time was ripe for a re-examination of housing programs and the Hellyer Task Force Report of 1967 recommended improvements to mortgage financing, an encouragement of non-profit and co-operative housing projects, and the need for special programs geared to Natives, Metis and rural households. This report saw the implementation of the

Rural and Native Housing Program. In 1973, the federal government adopted the principle that "it is a fundamental right of Canadians, regardless of their economic circumstances, to enjoy adequate shelter at reasonable cost" (Hansard 1973, Speech by the Hon. Ron Basford, in George Fallis 1985:170). From 1964 to 1970 the number of public housing units increased 25 fold. In 1976, over half of housing starts in Canada were being subsidized by the federal government (Warne 1989).

Stagflation- the simultaneous occurrence of high and rising unemployment and inflation began in the late 1970's in Canada (Fallis 1985). Fiscal restraint became the catchword of the day. The impact on social housing was swift. Very few new housing programs were introduced while many of the old programs were being cutback or dropped altogether. The ideology of most of the governments began to shift more to a free-market Thatcherism political ideology rather than a state interventionist strategy. The Neilson Task Force Report of 1985 recommended a reduction in government spending and fiscal belt-tightening. Social values were once again changing but the National Housing Act held to its basic policy goals and amended programs to reflect the resources and social climate of the day (Warne 1989).

Also, banks were first permitted to make mortgage loans in 1954, providing the loans were insured under National Housing Association (NHA) insurance. In 1967, the ceiling of

six per cent interest on mortgages was removed and banks were allowed to enter the conventional mortgage market, but could only lend up to seventy-five per cent of the value of the house. In 1969, mortgage controls were removed making the mortgage market more deregulated and competitive. CMHC began to make more grants and loans available to communities for housing infrastructure such as sewage and water treatment facilities, roads, recreational facilities, etc.. (Fallis 1985:181-182). This trend has continued.

3.9 SASKATCHEWAN HOUSING POLICIES

Up until the 1970's, most Saskatchewan provincial housing programs were cost-shared with the federal government, often tailoring programs to provincial priorities. Usually though, the legislation was federal with CMHC as the driving force, making most programs federally oriented.

Not until 1972/73, with the creation of the Department of Northern Saskatchewan, did any sort of independent provincial role in housing emerge in Saskatchewan. Saskatchewan was the last province to establish its own housing agency (Saskatchewan Housing Corporation 1973), but once on stream, many independent provincial programs were established focusing on low and moderate income households.

In the 1970's and 1980's, provincial programs for non-reserve housing could finance the purchase of existing housing or construction of new housing, give mortgages, subsidize

housing expenditures, give grants, finance the renovation of housing, and assist households in rural and remote areas. But this type of funding for the north has been extremely limited for the past decade. As previously mentioned, Saskatchewan Housing Corporation has built no new houses in northern Saskatchewan since 1986. SHC's main agenda today in the north is to administer SHC's existing housing stock of approximately 1,500 units and CMHC's rental program. It no longer builds northern housing because of its high costs, high mortgage delinquency rates and conclusions that home ownership criteria may have been a mistake (SHC, p.c., March 1991). Any new rental or mortgaged social housing in northern Saskatchewan is constructed by CMHC and administered by SHC for a fee from the federal government through CMHC (SHC, p.c., March 1991). The Provincial Metis Housing Corporation provides funding to SHC for northern housing, who in turn administer the housing stock and release funding for renovations and emergency repairs. Interviews with SHC in Prince Albert (1991-1992) revealed that maintenance funding from the provincial government for northern housing was very low and SHC's housing stock was deteriorating very rapidly.

3.10 GOVERNMENT HOUSING PROGRAMS

Treaty Indians are the responsibility of the federal government while Non-Status Indians and Metis are the responsibility of the provincial government. Because of this,

two different levels of government deliver housing requirements to northern Saskatchewan- federal housing programs for on-reserve housing and provincial housing programs for off-reserve, Metis, Non-Status Indian and low-income housing.

3.10.1 POLICY OVERVIEW

Most low-income non-reserve housing programs in Saskatchewan are jointly sponsored by the provincial (25%) and federal (75%) governments while reserve housing has been 100% federally sponsored. Until 1986, Canada Mortgage and Housing Corporation (incorporated 1946) had been responsible for all Canadian reserve housing with the Department of Indian Affairs and Northern Development (DIAND) as delivery agent. Post-1986 reserve and non-reserve housing has been entirely under the auspices of the Rural and Native Housing Program (RNHP) with reserve funding supplied by Indian and Northern Affairs Canada (INAC - previously DIAND), and non-reserve funding supplied by the provincial government through Saskatchewan Housing Corporation and the Saskatchewan Provincial Metis Housing Corporation.

The housing policy for Treaty Indians is based on social need. The federal government has supplied housing for reserves but it does not consider housing a treaty right (INAC 1991). On the other hand, Treaty Indians are promoting housing as a Treaty right and believe that it is the federal government's

Treaty responsibility to supply Treaty Indians on reserves with housing (INAC 1991). Status Indian organizations in Canada take the stand that the Government of Canada has special obligations to provide adequate housing to Indian people as a right. Status Indian organizations believe that these obligations of the Government of Canada flow from a combination of Treaty rights, basic Aboriginal rights, and the constitution (INAC 1991:1). The Government's position is that it has not recognized any universal Indian entitlements to government financed housing, but it firmly believes that all "Indian people should have access to adequate, suitable and affordable housing ... that meets basic national standards" (INAC 1991:2). Natives are currently pursuing their claim for a recognition of 'Housing Entitlements'.

Because of the lack of success of previous reserve housing programs RNHP has, to date "no firm policy" for reserve housing (INAC 1991:4) and is still looking for a workable solution to the problem (CMHC, p.c., June 1991; SFIN, p.c., June 1991). A tentative agreement in draft form is currently (1992-1994) being circulated amongst reserves for their opinions. This draft has many federal departments (Health and Welfare Canada, Department of Education, INAC, CMHC) along with various provincial departments contributing to housing because of the large social dimension that proper housing encompasses.

3.11 HOUSING PROGRAMS: A BRIEF HISTORY OF NORTHERN SASKATCHEWAN

In 1961, it was estimated that approximately 5500 Metis, 6700 Non-Status Indians and 2250 Status Indians were living in Census Division #18 in northern Saskatchewan (Bailey 1968). High birth rates caused a rapid population growth. By 1991, the Native population in northern Saskatchewan was over 20,000. Demand for social housing also increased.

3.11.1 METIS AND NON-STATUS INDIAN HOUSING

With the advent of the 1965 first major joint federal-provincial subsidy housing program, 100 units were built in northern Saskatchewan Metis communities between 1965 and 1968. These units were between 500 and 768 square feet, of frame construction, had 1 to 3 bedrooms, had no sewage facilities or central heating, and were scattered in 9 communities (Bailey 1968:85). The Provincial Department of Natural Resources (DNR) administered the cooperative program in which, after construction, the individual houses were turned over to a local cooperative on a blanket mortgage basis to be distributed to its members under an agreement of sale. "For various regions the co-operative system met with little success" and DNR took over the responsibility of collecting payments and administration. Qualified individuals of low income could obtain subsidy grants and 15 year mortgages (Bailey 1968:86). According to Bailey (1968:87), within one year, 79 of 94 completed houses were in arrears on mortgage

payments. Major arrears problems have been occurring ever since.

The major objectives of this program were to provide better and larger houses to relieve crowding, provide local employment and training in home maintenance, improve the lives of the residents and to encourage employment and business opportunities (Northern Saskatchewan Housing Needs Survey 1976-1977).

Over the next two decades, various provincial programs were implemented to improve housing conditions in northern Saskatchewan. The programs ranged from owner involvement programs, low interest loans, ready-to-move houses built in the south, and community planning and development programs. Public housing programs improved the housing quality in northern Saskatchewan. By 1976, approximately one-half of Metis housing in the north was subsidized (NSHNS 1976-1977). In 1991, SHC projected that approximately 85% to 90% of low-income, Metis and Non-Status Indian housing in CD #18 is subsidized (SHC, p.c., February 1991).

3.11.2 TREATY INDIAN HOUSING

Federal government reserve housing programs did not begin full scale in northern Saskatchewan until 1968. Before this time, the federal government built schools on reserves, but only a very limited amount of funds were available for housing programs (INAC, p.c., April 1989). With the 'perceived'

success of the Non-Status/Metis housing program in 1966-1968, CMHC, funded by the Department of Indian Affairs and Northern Development implemented long term housing programs on Canadian Reserves.

In 1974, the Indian On Reserve Housing Program was implemented across Canada. Under this program, individual Indians were responsible for providing their own housing supported by their chiefs, band council and DIAND (Munro 1980). Not all reserves used this program. Under this program, DIAND subsidized up to one-third of the cost of construction with CMHC giving subsidized mortgages to the individuals involved depending upon income (most mortgages were given at 2%). For individuals that were unable or did not want a mortgaged house, CMHC, through the Social Housing Provision of the National Housing Act, subsidizes band-owned rental units. The individuals are responsible for making rent payments to the band, and the band to DIAND. This program was intended to upgrade reserve housing, and at the same time to create reserve employment, construction skills, and to encourage reserve communities to take responsibility for their own housing needs and programs (Munro 1980).

In 1974, the federal government implemented the Rural and Native Housing Program based upon a 'purchase to income' concept for reserve and non-reserve communities. Up to 25 year mortgages were available with mortgage payments based upon income. It is subsidized by CMHC. This program is available to

all rural low-income people in Canada, including reserves (although few reserves in Saskatchewan use it). Today, this program is still in effect and is the main program used by non-reserve communities in northern Saskatchewan, while most reserves in northern Saskatchewan (the trend is beginning to change) obtain housing from INAC. No payments by either the band or individuals is required, e.g. Canoe Lake Reserve. If better or larger housing is wanted, then an individual can apply for a CMHC mortgaged house.

Provincial and federal government programs to improve reserve and non-reserve northern housing have been implemented in the past three decades. Well over 2500 government subsidized houses have been built on and off reserves in northern Saskatchewan by the provincial Department of Natural Resources, the Department of Northern Saskatchewan (1972-1982), Saskatchewan Housing Corporation (1982-1986), the federal Rural and Native Housing Program and INAC (INAC 1991). Reserve and non-reserve Indian/Metis housing has increased substantially in number and quality because of the federal and provincial governments new home and renovation programs.

3.12 ON-RESERVE HOUSING PROGRAM DESCRIPTION

The housing program of INAC, formerly DIAND, can be divided into two phases. The first phase, from 1945 to 1962 saw the Department of Indian and Northern Affairs deliver all aspects of the housing program from administration to

delivery. Indians had very little input into the design and operation of the program (INAC 1989:2). In 1962, a new approach was implemented with the focus on Native administration of the housing program. Also in 1962 a housing subsidy program was implemented that has seen over 50,000 units constructed on Canadian reserves up to 1990. Since 1989, INAC has allocated \$92.9 million per year to assist with the projected construction of 2,400 new houses and 3,000 renovations per year on Canadian reserves (INAC 1993:7). Over fifty percent of occupied existing on-reserve houses in Saskatchewan were built between 1981 and 1991 (INAC, p.c., November 1993; Census Canada 1981 and 1991).

Since 1979 reserves have also had access to CMHC's social housing program. This subsidy program has seen 1240 CMHC social housing units built on reserves between 1979 and 1989 (INAC 1989:2). They include senior, disabled and social housing. No separate statistics are available for Saskatchewan.

The On-Reserve Housing Program provides housing for bands and individuals residing on reserves or Crown land. INAC provides between \$19,000 and \$45,000 for the acquisition or construction of new housing and \$6,000 for the rehabilitation of existing housing under the Residential Rehabilitation Assistance Program (RRAP). Because INAC does not always cover the full cost of new housing, bands must often obtain additional funding from other sources (sweat equity, Work

Opportunities Fund from Social Services, Employment and Immigration Canada job training programs). The average cost of a new reserve house in Saskatchewan in 1991 was \$63,000 (INAC, p.c., February 1992). Money is also available for technical assistance, management, inspections, planning and demonstration projects. Administration is generally done by band councils or their consultants. They establish local housing policies, implement housing projects and ensure that new construction meets minimum National Building Code standards. Since 1979 construction on reserves has had to meet minimum National Building Code standards. Before this time it was not mandatory.

House occupants are then required to make monthly payments to the band who can use the money for maintenance or future housing needs. In many cases however, no payments are made. No Band Councils in CD #18 have payment requirements for residents with INAC housing (Canoe Lake Reserve, p.c., October 1990).

The Work Opportunities Program allows people on social assistance to become temporarily employed in house construction. Their social assistance payment is then directed into the reserve housing program and wages are drawn out of this pool.

As has been commonplace for off-reserve housing, mortgages are now being implemented on reserves for CMHC housing, offering individuals larger and more elaborate

housing options than is available from INAC. CMHC offers assistance to low and moderate income families who cannot afford the full costs of basic housing.

For reserves, two major loan assistance programs are available (INAC 1991). The first is a Rental Housing Assistance Program under Section 95 of the NHA which provides operating subsidies to reduce rents for low and moderate income families. The band is responsible for rent collection and submission to INAC. For many bands, this is seen as a last ditch attempt to acquire funding for housing because of the fear of reserve land repossession by the government (Canoe Lake Reserve, p.c., October 1990; INAC, p.c., October 1990). The reason for this is unclear, but mention has been made that some reserves do not want to become indebted to the federal government because they feel it could effect future land claims. Other reasons cited were distrust of the federal government and simple ungrounded fears (CMHC, p.c., October 1990; Jans Bay Administrator, p.c., February 1991).

Secondly, the Residential Rehabilitation Assistance Program (RRAP), under Section 51 of the NHA provides forgivable loans to reduce or eliminate renovation loans. RRAP is designed to upgrade existing housing that is a minimum of five years old and in substandard condition. Up to \$25,000 is available, of which \$8,250 is forgivable. Most reserves in northern Saskatchewan only take a portion of the RRAP loan, thereby eliminating any paybacks (CMHC, p.c., October 1990).

There is one other key program affecting reserve housing- the Social Development Program, which provides utility and maintenance payments for CMHC's Rental Housing Assistance Program for those households unable to make payments. INAC covers the rental payment to CMHC, utilities, repairs, insurance and administration costs (INAC 1991).

Because reserves are located on Crown land, mortgages cannot be obtained from lending institutions. To secure housing loans, bands and reserve individuals may apply for a Ministerial Guarantee which provides security to the lending institution in the event of default. Should the INAC Minister be required to make any payments under the guarantee, the band is ultimately responsible for repayment to the Minister. Arrears are generally taken out of future band housing allocations (INAC, p.c., October 1991; Sweet Grass Reserve, p.c., July 1992).

The trend today is for INAC to give a straight forward housing allocation to individual bands who can use the funds for new housing or the renovation of existing housing (CMHC, p.c., April 1994). Bands are required to keep reserve funds for repairs and are submitted to a yearly audit. But according to CMHC authorities many bands keep no reserve funds for maintenance purposes, therefore the first thing to suffer in new housing is regular maintenance practices (CMHC, p.c., April 1994). In order to rectify the situation, CMHC audits one-third of reserve housing each year. If faults are found

CMHC will remove any band housing subsidies. INAC can also refuse to give a ministerial guarantee if band housing is not kept in decent repair, therefore creating a vested interest for the band to maintain band housing. This represents a fundamental difference with off-reserve CMHC/SHC programs. Off-reserve CMHC/SHC housing is owned by CHMC or SHC until the mortgage is paid off. CMHC or SHC cannot use the withholding of grants tactic because the homeowner is not eligible for additional grants, so there is no leverage.

3.13 OFF-RESERVE LOW-INCOME HOUSING PROGRAMS

The main non-reserve low-income housing program in northern Saskatchewan remains the 1974 Rural and Native Housing Program (RNH Section 40 NHA Housing). It was administered from 1974 to 1982 by the Department of Northern Saskatchewan, from 1982 to 1986 by SHC and from 1986 to present by both SHC and CMHC. The intent of RNH is to provide eligible families and individuals in rural areas with populations of less than 2,500 to obtain suitable and affordable housing for ownership or rental. Like many earlier programs, RNH stresses job creation and home ownership, and was largely patterned after the Assisted Home Ownership Program (AHOP) of the south (Chislett 1985). In particular, maximizing client participation in planning and construction would help motivate clients and create responsibility for their own efforts and actions (CMHC 1982:1).

The cornerstone of the RNH program is to provide safe, warm housing for persons of rural areas with incomes that would normally make it very difficult to own their own home. Monthly or yearly mortgage payments are based on 25% of income and number of dependents, amortized over 15 to 25 years, and subsidized by the federal and provincial governments on a 75%-25% basis. For persons on social assistance additional assistance is given for utility costs. Arrears on mortgages in northern Saskatchewan in 1986 was approximately 80%. This rate has dropped to approximately 40% in 1991 because of new SHC loan structures and innovative new mortgage reduction programs, such as partial mortgage forgiveness. (SHC, p.c., December 1991).

As was previously stated, since 1986 SHC has built no new houses in the north - the task has been undertaken largely by CMHC and their low-income rental units (SHC, p.c., December 1991). According to SHC and CMHC officials, home ownership may have been a mistake for many Native clients for two reasons. First, is their low incomes, and secondly is a cultural one, affecting repayment and maintenance practices. In 1986 CMHC took over the Rural and Native Housing Program from SHC. Off-reserve housing in northern Saskatchewan was deteriorating rapidly and continues to do so. (Provincial Metis Housing Corporation, p.c., November 1990). The only one responsible for maintenance was the homeowner themselves, but with low incomes, lack of maintenance experience and a highly mortgaged

house that was essentially worth much less than the mortgage amount, the desire to spend scarce funds on upkeep was minimal. CMHC would give RRAP loans to qualified individuals but only if the individual owed no money to SHC. This was uncommon.

Other government programs available to northern Saskatchewan residents are the previously mentioned RRAP, the Emergency Repair Program (federally funded) which assists residents in rural areas to undertake emergency repairs required for the continued safe occupancy of their home, and the RNH Demonstration Program (federally funded) that provides funds for the development of innovative approaches to the provision of rural and Native housing (e.g. log housing).

3.14 THE HOUSING DECISION-MAKING PROCESS

Political, administrative, legal and institutional factors set reserves apart from non-reserve communities. The responsibilities of a band council are very diverse as compared with local governments of non-reserve communities. Among the responsibilities of bands are policing, alcohol and drug enforcement, education, welfare administration and the allocation, construction and maintenance of housing and other physical infrastructures. Funding is provided by the federal government (Convery and Wolfe 1990). Small non-reserve communities have little impact in these areas and are more involved in roads, bylaws, taxation, sewer and water and

community development. Funding is provided by the provincial government. They have a property tax base (although it is largely unpaid) while reserves have no property taxation. Community new housing and maintenance is generally left up to the government or individuals. Often times social housing is pursued by town councils but final decisions are made by CMHC or SHC. (Jans Bay, p.c., October 1991).

The following is an overview of how new housing and maintenance decisions are made on Saskatchewan reserves (Canoe Lake Reserve, p.c., October 1991; Sweet Grass Reserve, p.c., July 1992). Anyone wanting a new house must apply to the band office by a specified date. Generally there are many more applications than resources available for new housing. Decisions are based upon need and length of time the applicant has been applying for a new house. A report is then submitted to INAC who distribute funds, based on budget, need and population size to the various reserves. Housing is then constructed under the guidance of the band council with the help of other funding sources, such as work programs and supervision grants. Upon completion, INAC audits the new housing program to ensure funds were properly allocated. If discrepancies are found, future funding may be partially discontinued for a period of time. Renovations are done in a similiar way. A housing officer goes from house to house and asks the inhabitants the type of renovations they desire. Funding from INAC is based upon population size and INAC's own

budget. Generally, the demand far outweighs funds available, so the band council decides upon renovations. Priority is given to the health and safety of occupants. Aesthetics are done only if sufficient funds are available. The band is then open to the possibility of an audit from INAC. If discrepancies are found, future funding may be terminated for a period of time.

Housing funds for non-reserve communities in northern Saskatchewan is generally handled as a collective endeavour by the town council. Individuals can apply directly to SHC or CHMC for new housing or renovations but as a rule, applications, especially in the smaller centers, are submitted to town council, who in turn apply collectively to the government for funding. A housing officer from SHC or CMHC will visit the community and file a report. Decisions are made based upon the need and qualifications of individuals and available funds (Jans Bay, p.c., October 1991).

Many reserves and northern non-reserve communities have interfamily tensions and are often important constraints on planning and development. Historically, extended Native families were quite independent of each other (Convery and Wolfe 1990). Often animosity affects band decisions, which ultimately leads to privileged access to housing, employment and other forms of band assistance because band councils ultimately decide who gets a new house or renovations. On many reserves there is a common understanding that "each council

has the right to take while it can, because history has shown that there will be new temporary coalitions gaining power at the next election ..." (Ross 1987:53). This can influence the outcome of new housing programs and monies allocated to housing maintenance programs. Often some renovation money will be diverted into other areas, such as welfare. Consequently, band officials have pressures on them to do what is wanted by dominant families. This is further exacerbated by band government elections every two years.

3.15 SUMMARY

In summary, this chapter has covered the main approaches to housing theory and given a description of the evolution and role of governments in housing policy and programs in Canada. Both the federal and Saskatchewan provincial governments have been extensively involved in social housing for the past three decades, the result being greatly improved housing conditions for Canada's northern regions.

The dual delivery system between federal and provincial government has created differences in housing programs between reserve and non-reserve dwellings in northern Saskatchewan. The main purpose of this study is to determine if these program differences affect housing quality.

CHAPTER 4

HISTORIC BACKGROUND

INTRODUCTION

Chapter Four looks at the historical background of the study area and the socio-economic characteristics of the residents. As well, it discusses two issues- social welfare dependency and the economic development of northern Saskatchewan.

Housing needs for northern people have changed since World War II. This change was largely due to a shift from a land based nomadic lifestyle to the movement to permanent settlements.

At present, the Saskatchewan Native population is going through a major transformation which is increasing pressure on the reserve housing system. In 1977, only 30% lived off-reserve. This increased to 44.5% by 1987. In northern Saskatchewan 20% of natives are classified as urban dwellers, many in inadequate housing. (Health and Welfare Canada 1989:6). According to INAC, the major factors affecting off-reserve migration are the quest for a higher standard of living, better social and health services and improved employment opportunities (INAC 1989). Often life in urban

centers is no better than reserve living, because of its drug and alcohol abuse, high crime rates, slum housing, poverty and racism (FSIN 1988).

4.1 POPULATION AND HOUSING

CD #18 in northern Saskatchewan constitutes 45% of Saskatchewan's total land area of 570 million square kilometers but less than 3% of its population. Of the 26,000 persons that live in CD #18, 10,833 live in the unorganized territory of CD #18 and 6,000 live on reserves (Census Canada 1986). The other 9,000 live in the major centers of Creighton, Flin Flon (part), La Ronge and Air Ronge. Tables 4.1 and 4.2 list reserves and non-reserve communities in CD #18, populations and housing inventories. Although census data for the smaller non-reserve communities in 1981 is unavailable, the total figures for CD #18 non-reserve housing reveals an increase of 1.5% from 1981 to 1986, whereas CD #18 on-reserve housing as a whole has increased by 54%. Table 4.2 also shows SHC's Rural and Native Housing inventory for 1989.

In Canada, approximately 46% of reserve housing is inadequate with 24% needing major repairs as compared to 6% for non-Native houses (1981 Census). In 1981, 44% of reserve households had running water, 30% had indoor toilets, 33% had telephones. This compares to non-Native housing with 97% having running water and indoor toilets (1981 Census). Northern Saskatchewan is among the worst areas in Canada for

deficient Native housing.

TABLE 4.1

OCCUPIED PRIVATE DWELLINGS CD #18 RESERVE COMMUNITIES 1981/1986				
CD #18 Location	Population 1986	1981 Dwelling	1986 Dwelling	% Change
Canoe Lake #165	348	65	75	16
Chicken #224/225	796	95	130	37
Cumberland #20	121	20	40	100
Fond Du Lac #227	494	85	129	52
Grandmother's Bay #219	99	25	30	20
Kitsakie #156B	533	95	100	5
La Loche #222/223	77	15	50	333
La Plonge #192	-	-	40	-
Lac La Hache #220	342	35	65	85
Lac La Ronge #156	342	60	80	33
Montreal Lake #106	448	80	100	25
Morin Lake #217	-	-	25	-
Pelican Narrows #184B	701	95	140	47
Peter Pond Lake #193	312	60	85	42
Southend #200	318	55	65	18
Stanley #157	539	95	120	26
Sturgeon Weir #184F	-	5	10	100
Sucker River #156C	91	20	25	25
Turnor Lake #193B	137	25	20	-20
Wapachewunak #192D	356	65	80	23
Total	6054	1045	1409	

Source: Native Summary Tapes 1981; Census Canada 1986

TABLE 4.2

OCCUPIED PRIVATE DWELLINGS CD #18 NON-RESERVE COMMUNITIES
1976/1981/1986

CD #18 Location	Pop'n 1981	Pop'n 1986	Units 1976	Units 1981	Units 1986	% Change 1981/1986	RNH 1989
CD #18	25304	26000	-	5820	5900	1.5	-
CD #18 Unorg.	11991	10833	-	2535	2410	-5.0	-
Air Ronge	-	698	83	-	180	-	54
Beauval	-	656	68	-	160	-	101
Brabant Lake	-	150	22	-	25	-	19
Buffalo Narrows	-	1193	179	-	340	-	179
Camsell Portage	-	-	10	-	-	-	4
Cole Bay	-	189	19	-	40	-	33
Creighton	1636	1620	-	520	560	8.0	23
Cumberland House	-	862	137	-	180	-	145
Denare Beach	-	712	119	-	220	-	16
Deschambault Lake	-	492	48	-	90	-	23
Dore Lake	-	-	25	-	25	-	6
Ile A La Crosse	-	1030	161	-	240	-	167
Flin Flon (part)	367	-	-	-	-	-	-
Jans Bay	-	140	18	-	35	-	31
Kinossao	-	-	19	-	-	-	9
La Loche	-	1623	268	-	280	-	151
La Ronge	2579	2696	-	785	795	1.0	78
Michel Village	-	110	21	-	20	-	21
Patuanak	-	138	21	-	30	-	26
Pelican Narrows	-	523	32	-	100	-	39
Pinehouse Lake	-	682	73	-	125	-	80
Sandy Bay	-	875	83	-	145	-	102
Sled Lake	-	-	9	-	-	-	7
Southend	-	180	21	-	30	-	27
St. George's Hill	-	112	16	-	25	-	20
Stanley Mission	-	175	19	-	40	-	20
Stony Rapids	-	-	34	-	-	-	31
Sturgeon Landing	-	-	10	-	-	-	8
Timber Bay	-	174	19	-	20	-	15
Turnor Lake	-	219	27	-	45	-	45
Weyakwin	-	166	34	-	44	-	28
Wollaston Lake	-	-	15	-	-	-	12
Total	-	-	-	-	-	-	1521

Source: NSHNS 1976-1977; Census Canada 1981 and 1986; SHC 1989

4.2 LIFESTYLE CHANGES OF NORTHERN SASKATCHEWAN NATIVES

Great changes have occurred in the lifestyle of Canadian Natives since contact with Europeans. Native culture has changed dramatically from a subsistence hunting society to a settlement based economy. Shelter requirements were much simpler in the past. Portable tipis, earth lodges, conical tents of skins and log cabins were considered adequate shelter (Koerte 1974). Today, these forms of shelter have been replaced by 'modern' Canadian housing. Control of natural resources by the Saskatchewan government from the federal government in 1930 was motivated by the potential financial benefits to the provinces (Crowe 1974). Because of the Great Depression of the 1930's, most provincial funding was limited to sustaining the southern half of the province, but a realization of the value of game, fish and furs of the north created an awareness of the value of northern natural resources. The depression also increased migration northward into unsettled agricultural areas, creating more contact between southerners and the Indian/Metis northerners. This helped to accelerate socio-cultural changes for northerners and create an awareness of the problems of the north (Serl 1965).

In 1944, under the Co-operative Commonwealth Federation (C.C.F.), a resource management program was established for the north. From this, the role of government as 'social

developer' began to take on a strong influence in the north. Northern administrators, by their mere presence in the north, helped to speed up social and cultural change and increase Indian/Metis 'wants' (Serl 1965).

The Saskatchewan Northern Administrative Act of 1948 made the Department of Natural Resources responsible for the administration of northern Saskatchewan, including community development and government services (medical services, social aid, family allowances and other government activities), but they were not redesigned to meet northern conditions. Policy was decided by southerners who knew very little of the northern situation (Spaulding 1965). The result was an obscured view of basic northern problems. The 1948 Act recognized a need but failed to provide direction or betterment for northerners (Spaulding 1965). Some movement of people to larger settlements began because of enforced government policies (e.g. linking family allowance to school attendance). The result was removal of part of the population from their traditional trapping grounds to communities that could support only limited trapping activity. Quota systems on fur-bearing animals were established, limiting motivation and dislocating people from their fundamental relationship with the land (Serl 1965). The end result was the beginning of dependency and Indian/Metis housing problems. Northern Saskatchewan's geographic isolation from the outside world began to change and northerners underwent extensive changes.

Housing in settlements was amongst the worst in the industrialized world, similiar to the shanty towns in many Third World cities (Spaulding 1965).

Saskatchewan's northern population has gone through and is still going through significant cultural and social change. Fourty years ago the livelihood was mostly one of traditional hunting and fishing activities. Today, satellite television, radio, schools and the print media have radically changed the young generations expectations and ambitions. Within the last 25 to 30 years readily available welfare, alcohol and access to southern culture and housing has been available to most of these rapidly changing social and cultural communities, causing and adding many problems to these vulnerable areas of northern Saskatchewan. (Saskatchewan Social Services 1989:2).

As welfare benefits, government transfer payments and government services increase, an apparently inescapable result seems to be that of greater dependency for the recipients of the system (Frideres 1974). Natives on social assistance in Canada have risen by 20% in the past 20 years from 40% to 60%. In Saskatchewan this rate is 75% (Saskatchewan Social Services 1989). This scenario has more probably than not increased northern Saskatchewan's sense of dependency upon government administration and assistance. This removes much personal initiative and promotes a feeling of security at a subsistence level. The result is a general feeling of 'dispiritedness' amongst the Native population (Frideres 1974). This often

translates into irresponsible behavior that is subject to southern scorn. When it comes to the 'built' environment, the government has been able to control housing and its infrastructure by controlling the 'purse strings'.

Household incomes in northern Saskatchewan are substantially lower than in southern Saskatchewan, while household size is larger. The result is fewer resources for home maintenance and upkeep as compared to the south. Government housing programs for new housing and maintenance have become a necessity in the north if an acceptable level of housing is to be maintained.

4.3 NORTHERN SASKATCHEWAN NATIVE CULTURAL ETHICS AND VALUES

Because most northern communities still operate on a grassroots small scale philosophy of development, they are often in conflict with the more conventional large scale formal economic development models (Convery and Wolfe 1990:13). Government development programs presume that success means growth and financial gain, and are somewhat incapable of seeing that success can be based on both social and economic profit (Convery and Wolfe 1990).

Priorities, traditions, attitudes, values and ethics affect how people act and react with their own house and community at large. This in turn can affect housing. Important Native northern values include: an edict against accumulation (Ross 1986), egalitarianism (Ross 1986, Panting 1986),

personal autonomy, sharing and traditional modes of teaching (Convery and Wolfe 1990). This makes it difficult for a band/community housing officer to ensure that rules are being followed since he/she is not to interfere in another person's business. It is also Native culture that people who do not agree with a decision are not bound by it (Convery and Wolfe 1990). The importance of personal autonomy and non-interference is so strong that persons with construction experience in housing will, as a rule, neither give nor receive advice. Others may learn by observing but rarely ask advice (Saskatoon Native Consultant, p.c., May 1991; Deschambault Lake Native Housing Officer, p.c., May 1991).

Also, the egalitarianism ethic that no person stand out above others may play a large part in limiting house maintenance. The 'edict against accumulation' (Ross 1986) removes the desire (and need) to accumulate monies for major home renovations - sharing, not hoarding is a Native way of life.

Given this socio-cultural environment, housing in Native/Metis communities is likely to improve through a slow transformation, a transformation that will not be in conflict with traditional attitudes and values. Southern values are slowly infiltrating the north, often clashing with traditional ones. An example of traditional Native culture is the use of Native healing circles for crime rehabilitation, instead of incarceration.

Traditions, values, attitudes and priorities affect how people behave within their household and the community at large. (Ross 1987). These in turn influence the way in which housing is maintained on and off reserve. The decision-making process often makes band/community decisions very slow and ineffective. The importance of personal autonomy is related to non-interference by other individuals or outside forces (governments). When this ethic is broken by our governments, it is also the Native way to sit back and say very little and take what is given to them. This has led to many policies and programs being 'shoved down their throats' (Ross 1987). Only recently have Natives began to forcefully speak out against the government thinking they know what is best for them. In the 1970's, the rise of Native power began. More and more Natives are standing up for themselves and their interests (Native People, p.c., 1990-1992).

4.4 HISTORY OF JANS BAY

The northern village of Jans Bay came into existence in 1965 when three families moved two miles from the northeast to the current townsite in order to be closer to the lake for fishing. The townsite borders Canoe Lake Reserve #165 to the west and Canoe Lake to the north. The two Corrigan families and one Gardiner family that founded Jans Bay named the site after the sheltered bay of Jans Bay, a part of Canoe Lake.

In the summer of 1965, three log houses were constructed

and a road built to connect Jans Bay to Canoe Lake Reserve. All labor and materials were supplied by local people along with a \$500 grant from DNS. In 1967, the current town hall was constructed by volunteer labor and \$3,000 in donations from local residents. Since this time, the three original families and log houses have grown to thirty-one families and thirty-five occupied dwellings, with a total population of 195 in 1991 (Census 1991). Approximately fifty percent of the dwellings are privately owned and fifty percent rental units. In 1988, the construction of a sewer and water treatment plant with connections to all dwellings except two of the original log houses began. These log houses are still occupied by single people during the summer months and periodically during the winter. Seventy-five to eighty percent of residents are eligible for C-31 status because of marriages with Canoe Lake Reserve residents over the years (Jans Bay Administrator, p.c., February 1991).

In 1974, SHC constructed four dwellings in Jans Bay with local labor and thirty-five year mortgages. In 1975, another four SHC units and a curling rink were constructed with local labor. This was a two year project. Again in 1976-1977, SHC built twelve dwellings and two in 1978. The last three DNS houses were constructed in 1979 with no government subsidized dwellings constructed until 1988 with the acquisition by CMHC of three Olympic units from Calgary at a cost of approximately \$85,000 per unit, excluding land and services. Along with the

three rental Olympic units, another seven CMHC rental units were constructed in 1990-1991 by a Prince Albert contractor. Also, in 1985 a community hall was erected with local labor and a provincial government grant.

One private home was constructed in 1982. The occupants of this log home were still very pleased with their house at the time of interviewing and felt that all houses at Jans Bay should be of log construction. They felt that they were cheaper to build, warmer, could be easily heated with wood, local labor and materials could be used and maintenance was very low.

In 1985-1986 three mobile homes were purchased by CMHC from Cluff Lake Mine for accommodations for single people. They proved too costly for utilities and renovations and were never occupied. Today they remain vacant and vandalized.

4.4.1 THE HISTORY OF CANOE LAKE RESERVE

The history of Canoe Lake Reserve goes as far back as the memory of locals goes. The site has been the winter camping grounds of the Cree for generations but only became a permanent settlement in the 1920's. Their trapping area was significantly reduced by one-half in 1954 by the expansion of the Cold Lake Air Weapons Range (Canoe Lake Reserve, p.c., March 1991).

Construction of housing units by DIAND began in the 1950's but they were basically small one or two room units

with very little insulation and no amenities. It was not until the 1960's that DIAND began building larger units on all Canadian reserves.

Since this time, Canoe Lake Reserve has built two new band offices, three new schools, two firehalls, two restaurants, one curling rink, one skating rink, one community hall, one store, one health clinic and a logging mill. The band office, school and logging enterprise are the major employers in the area. Because the band must acquire a logging permit from Weyerhaeuser Canada for timber rights off the reserve, this has slowed the growth of logging by the reserve (Canoe Lake Reserve, p.c., March 1991).

Housing problems on Canoe Lake Reserve include overcrowding, lack of maintenance and maintenance skills and limited resources for repairs. Seventy-five to eighty percent of residents are on social assistance and require government support to maintain their housing properly. Everyday problems voiced by local administrators were rotting floors caused by improper ventilation of crawl spaces, water heater burnouts caused by low water levels at the water treatment plant, lack of skilled tradesman for repairs, condensation and fungi growth, frozen plumbing and no money to insure houses or their contents. Funding from INAC for new housing and maintenance in 1990 was based on \$385 per band member. This translates into \$173,635 for the entire band. Infrastructure costs added another \$40,000 for costs such as road construction, sewer and

water and electrical hook-ups (Canoe Lake Reserve, p.c., March 1991).

The band council attempted to implement a policy to have occupants be responsible for minor maintenance on their own house, but it was rejected by band members. According to one band administrator "the people have the money, they just don't want to spend it on fixing their house because they know the government will" (Canoe Lake Reserve Administrator, p.c., March 1991).

4.5 HOUSING CHARACTERISTICS OF THE POPULATION

Census Canada (1991) reports that there are approximately one million Canadians that claim Native ancestry. Official government statistics are available for Status Indians but there is very little data on Non-Status Indians and Metis. Yet, comparisons of their socio-economic conditions shows very little difference (Bolari and Li 1988:2-8).

Native and Metis communities in northern Saskatchewan have primarily Native populations with 40% of the population being under 15 years of age and 60% of the population under age 25 (Census Canada 1986). Table 4.3 shows a variety of variables for CD #18 from 1981 and 1986.

As can be seen, there are variations between CD #18 reserves and the unorganized territory of CD #18, particularly in household income, rent/mortgage cost and

period of construction.

TABLE 4.3

SELECTED VARIABLES CD #18 (1981/1986)					
Variable	CD #18 1981	1981 Unorg	1981 Reserve	1986 Unorg	1986 Reserve
Population	25304	11991	6054	-	-
% Native	-	-	-	85.1	96.8
Occ. Private Dwell	5820	2530	1726	2410	1726
% Owned	63.1	73.2	-	-	-
% Rented	36.9	25.8	-	-	-
# Persons/Household	4.3	4.7	5.5	-	-
Period of Construction*					
% Old >1960	20.8	12.6	7.2	23.1	24.5
% Moderate 1961-1970	20.9	23.5	28.9	61.2	39.7
% New 1971-1980	58.2	64.0	64.4	15.8	39.2
% Central Heat	64.6	61.6	15.2	60.7	37.6
% Regular Maintenance	60.0	62.6	35.0	-	-
% Minor Repairs	27.0	24.1	43.4	-	-
% Major Repairs	12.9	13.2	21.6	-	-
Dwelling Value \$	32566	36400	-	26852	-
Persons/Room	0.9	1.0	1.2	1.0	0.9
Average Rent/Mtg \$	274	220	0	294	0.0
Participation Rate %	67.1	60.0	53.3	47.8	36.9
Household Income \$	21082	17956	14724	25159	19676
# Children/Family	2.4	2.8	3.1	2.8	2.9
% With Bathroom	78.2	68.3	44.7	-	-
# Rooms/Dwelling	5.0	4.9	4.5	-	-
% Transfer Payments	-	-	-	25.8	38.3

Source: Census Canada 1981 and 1986; Native Summary Tapes 1981
 *Period of Construction, Census Canada 1986: Old <1971;
 Moderate 1971-1981; New 1981-1986.

In 1986, there were 5820 houses in CD #18, with 1726 (29%) on-reserve, 2410 (41%) in the unorganized territory and 1670 (28.5%) in the four major centers of Creighton, Flin Flon (part), La Ronge and Air Ronge.

4.6 SOCIAL DEPENDENCY AND ECONOMIC DEPENDENCY

In today's world, specialization is the major factor governing local and regional social and economic relations

(Bone 1992c). Because Canada is based on a market economy economic and social relations often favour one region at the expense of another. Dependency can be both oppressive and long-term, with one area/player subordinate to another area/player (Bone 1992a). Northern Saskatchewan is a hinterland and its relationship with external factors from the more advanced south have placed it in a position of economic dependency because of its dependence on external capital and technology for modernization. By shifting tax money from wealthier regions to poorer regions, governments have attempted to lessen regional inequalities in Canada. This transfer dependency has created another form of dependency called social dependency. Funding for health, education and social programs comes largely from southern government coffers, creating a dependency on governments in these areas. Marxists view this type of relationship as being extremely exploitive creating a type of underdevelopment that undermines the region's social and economic well-being (Bone 1992c).

The Indian problem in Canada has historically been viewed as 'a problem Indians have' and not as a 'non-Indian' problem (Frideres 1988 in Bolari and Li 1988:101). Canadian economic and cultural structures have not been beneficial to Natives because, as Mydral (1957) states, general economic theory ignores culture. Natives are marginal actors in Canada because of their limited incomes, means of production and discrimination (Frideres 1988 in Bolari and Li 1988). Because

social positions and relations are part of our Canadian system of economics, and most Natives come from depressed rural areas or reserves, they have not developed the necessary skills to compete successfully in the capitalist system (Bolari and Li 1988), hence becoming dependent upon the system itself.

Why are Canadian natives in such a state of dependency in such a prosperous country? Over time, economic cleavages and cultural and racial differences have separated the Native north from mainstream Canada and, in doing, has severely restricted the flow of ideology, capitalism and technology to Natives. These relationships have maintained the Native minority in a "perpetual dependency relationship" (Frideres 1988:90).

As capitalism flourishes its outputs must increase, but as capitalism and technology increase, people in the traditional sector have a continued reduction in employment opportunities because of their lack of technological skills.

Another example of the dependency of Natives is the amount of social assistance provided to them. Native social assistance has increased from \$80 million in 1971 to \$320 million in 1986. In 1991, over 30% of the INAC budget was for welfare, but only 4% for Native economic development - a historic low (INAC 1991). Social welfare dependency for Natives is ten times more than the general population (Frideres 1988:95). This shows the extremely high dependency of Natives on government support. Because of the high rise in

Native social assistance over the past two decades the federal government has cut many Native programs to compensate, which in turn, increases dependency upon government for financial support.

Although many programs have created jobs in northern communities and reserves, they have not led "in any comprehensive way, to the generation of self-sustaining economic and employment activity or to the enhanced self-reliance of ... communities" (INAC 1990:7).

One of the major barriers to Native economic development is the almost complete lack of bank credit, both on and off-reserve. The trust provision of the Indian Act (Section 89) does not allow reserve buildings or land to be mortgaged, therefore, without any security, banks will not loan money for reserve housing or most businesses. The end result has been the use of government as lender of last resort for both housing and business ventures. According to Wolfe (1990), this has fostered a grant mentality for Natives, thereby increasing rather than decreasing government dependency. Dependency is only increasing over time making northerners and Natives the most dependent people in Canada on government support.

CHAPTER 5

DATA SOURCES

INTRODUCTION

This chapter deals with the collection of data at the macro and micro level, an explanation of what a household and dwelling are, and the selection of variables for the research. The macro data includes Census Canada data from 1981 and 1986 and the 1981 Native Summary Tapes. The micro data is derived from extensive interviewing of Jans Bay and Canoe Lake Reserve.

5.1 MACRO DATA

A macro study using 1981 and 1986 Census Canada data, the most recent comprehensive census data between 1981 and 1991, of populated reserves and communities located within CD #18, was undertaken to access housing at the macro level. It provides data for a large number of social, economic and household characteristics at the community level. Also, the 1981 Native Summary Tape provides individual housing and socio-economic data for the first time for reserves in northern Saskatchewan. Saskatchewan Housing Corporation, the federal Indian-On-Reserve Housing Program, Rural and Native

Housing Program and Canada Mortgage and Housing Corporation records on housing were examined to see the direction/intent of housing programs. Other sources of information were Indian and Northern Affairs Canada, the Provincial Metis Housing Corporation, Saskatchewan Indian Housing Commission, Health and Welfare Canada and reserve and town administrators.

5.2 MICRO DATA

A pretested questionnaire (Appendix 1) was administered by a door-to-door survey of households in the communities of Jans Bay and Canoe Lake Reserve. A 76% response rate was received at Jans Bay (total of 35 households) and 54% at Canoe Lake Reserve (total of 125 households). This information was used to assess differences in housing quality at the community level.

Interviews were conducted in an informal manner by myself and a research assistant by verbally asking and marking the responses ourselves. Overall response rate was good. The interior and exterior of houses were visually examined to obtain a condition rating. Three trips in 1991, within four months of each other, were required in order to obtain enough information for analysis. The first trip was exploratory and included testing of the questionnaire and its revision. Town officials and band staff were informally questioned on a variety of subjects in order to obtain ideas for the questionnaire and thesis. The second trip administered the

questionnaire at Jans Bay and a portion of Canoe Lake Reserve. A third trip was required because of the death of a prominent elder on Canoe Lake Reserve during the second research phase which forced the temporary termination of the survey.

Community records were accessed and local administrators interviewed to obtain information on housing programs used to construct and maintain housing in the two communities, and of their views on housing in their respective communities. Trips to other northern communities were also done to do some brief unstructured interviewing of local administrators. These include: Cole Bay, Beauval, Ile-a-la-Crosse, Buffalo Narrows, St. George's Hill, Turnor Lake, La Loche, Deschambault Lake, Creighton, La Plonge Reserve, Turnor Lake Reserve, Peter Pond Lake Reserve and La Loche Reserve. Two southern reserves were also interviewed: Beardy's Okemosis Reserve and Sweet Grass Reserve.

5.3 HOUSEHOLDS AND DWELLINGS

Private dwellings (or private households) are the units analyzed in this research. They are structurally separate living quarters with a private entrance that shelters a person or group of persons (Census Canada 1981 and 1986). Occupied private dwellings make up the vast majority of housing stock in CD #18 and are the units analyzed here. The term 'Native dwelling' refers to a private dwelling occupied by a Native/Metis household. Because of the lumping together of

Census data by community, a distinction in the Census is not made between a Native or non-Native household. This is not viewed as a problem for statistical purposes because in CD #18 over 90% of the communities and reserves, with the exceptions of La Ronge, Air Ronge, Flin Flon and Creighton, are largely composed of persons who are Native or of Native ancestry (Table 5.1). The Native population refers to Canadians who reported their ethnic origin as either Status Indian, Non-Status Indian, Inuit or Metis in the 1981 and 1986 Census.

TABLE 5.1

Per Cent Native CD #18 1986			
COMMUNITY		RESERVE	
Air Ronge	21	Canoe Lake 165	97
Beauval	89	Chicken 24	98
Brabant Lake	93	Cumberland 20	99
Buffalo Narrows	80	Fond du Lac 227	98
Cole Bay	99	Grandmother's Bay 219	99
Creighton	01	Kitsakie 156B	98
Cumberland House	94	La Loche 222	98
Denare Beach	29	La Plonge 192	76
Deschambault Lake	95	Lac la Hache 220	99
Dore Lake	65	Lac la Ronge 156	97
Flin Flon	02	Montreal Lake 106	97
Green Lake	89	Morin Lake 217	99
Ile-a-la-Crosse	93	Pelican Narrows 194B	99
Jans Bay	86	Peter Pond Lake 193	99
La Loche	93	Southend 200	97
La Ronge	41	Stanley 157	99
Michel Village	99	Sturgeon Weir 194B	99
Patuanak	83	Sucker River 156C	95
Pelican Narrows	90	Turnor Lake 193B	95
Pinehouse	95	Wapachewunak 192D	97
St. George's Hill	90		
Sandy Bay	90		
Southend Reindeer	92		
Stanley Mission	94		
Timber Bay	85		
Turnor Lake	83		
Weyakwin	82		

Source: Census Canada 1986

5.4 VARIABLE SELECTION

As a geographic problem, housing quality is a developmental as well as spatial question. Variables selected reflect the housing problems at the community/reserve level for northern Saskatchewan. The key dependent variable is a measure of housing quality. A quality index for housing is established using a composite measure of four variables at both the micro and macro levels: 1) state of repair; 2) absence or presence of bathrooms; 3) central heat; 4) crowding.

In addition, it was necessary to select a wide variety of variables in order to measure the multi-faceted aspect of housing and the developmental process. This is done in the micro study. Because economic, demographic, education, political, social and other factors are all related to housing and development, explanatory variables from each of these groups was selected to get a comprehensive picture of housing in northern Saskatchewan. The following is a list of the selected independent variables at both the micro and macro levels.

MICRO LEVEL (from questionnaire):

- 1) Population of community/reserve
- 2) Number of persons living in house
- 3) Number of persons per room
- 4) Household income
- 5) Income source
- 6) Maintenance skills of head
- 7) Period of house construction (Before 1970; 1971-1980; 1981-1986; 1987-1990)
- 8) Tenure of house (owned/rented)
- 9) Who built house (self, government, government assistance)
- 10) Who maintains house (self, government assistance)
- 11) Physical condition of interior (regular maintenance only, minor repairs needed, major repairs needed)
- 12) Physical condition of exterior (regular maintenance only, minor repairs needed, major repairs needed)
- 13) Absence or presence of bathroom
- 14) Heat type (central/non-central)
- 15) Average monthly rent or mortgage
- 16) Utilities cost (monthly)
- 17) Amount spent on yearly maintenance (self, government)
- 18) Estimated value of repairs to house in past five years
- 19) Views of heads as to major problems in regards to own housing and community housing
- 20) Level of satisfaction with house (good, fair, poor)

MACRO LEVEL (from Census Canada data):

- 1) Population of community/reserve
- 2) Number of occupied dwellings per community
- 3) Average number of persons per house
- 4) Average number of persons per room
- 5) Period of construction (before 1970; 1971-1980; 1981-1986)
- 6) Heat type (central/non-central)
- 7) Absence or presence of bathroom
- 8) Average monthly rent or mortgage
- 9) Tenure of house (owned/rented)
- 10) Physical condition of dwelling (regular maintenance only, minor repairs needed, major repairs needed)

CHAPTER 6

METHODOLOGY

INTRODUCTION

Data analysis will be undertaken using a housing condition indicator, an index of dissimilarity, a t-test and product-moment correlation to test the difference between reserve and non-reserve houses. Each technique will be briefly discussed in this chapter.

6.1 HOUSING CONDITION INDICATOR

A housing condition indicator based on four variables found in the 1981 Census is created. These are shown in Table 6.1. Each variable is assigned points to the degree that it indicates housing deficiencies. This technique, "a housing condition indicator" (Ekos 1985; Moore 1990), uses a rating system in which values for each of the four variables are assigned points to the degree that they indicate housing deficiencies. Points are then summed for each community in the macro study and each dwelling in the micro study to give a rating anywhere from 0 (very good) to 8 (poor).

The following shows how the ratings for the micro study were calculated:

Persons/Room: Average number of persons per room

Bathroom: Percentage of dwellings lacking a modern bathroom
 Central Heat: Percentage of dwellings lacking central heating
 State of Repair: Percentage exteriors needing minor repairs
 times one plus percentage of exteriors needing major repairs
 times two divided by percentage of interiors needing minor
 repairs times one plus percentage of interiors needing major
 repairs times two.

The system is defined as follows (Moore 1990):

TABLE 6.1

HOUSING CONDITIONS INDICATOR				
VARIABLE	ASSIGN EACH DWELLING:			
	0 points:	1 point:	2 points:	3 points:
A. Persons/room	> 0.5	0.5 - 0.9	1.0 - 1.5	<1.5
B. Bathroom	Minimum 1 bathroom	Half bath only	No modern bathroom	-
C. State of repair	Regular maintenance only	Minor repairs needed	Major repairs needed	-
D. Central heat	Furnace or electric heat	Stove, space heater, or non-central equipment	-	-

Indicator values equal the sum of A + B + C + D. They approximately correspond to the following degrees of problem housing (Moore 1990):

DWELLING RATINGS

- 0.0-1.0 GOOD: The household is well housed. There are either no dwelling deficiencies or only one minor deficiency.
- 1.1-4.0 ADEQUATE: The household is adequately housed. There is either extreme crowding and/or one or more minor deficiencies.

- 4.1-6.0 INADEQUATE: The household is inadequately housed. It is either crowded with one major and/or some minor deficiencies, or the dwelling has many major deficiencies without crowding.
- 6.1-8.0 POOR: The household is poorly housed. The dwelling has many major deficiencies and/or there is crowding.

Although these rating thresholds form the basis of the interpretation, they are not absolute. Obviously, no single rating, regardless of its comprehensiveness, can fully describe the degree and nature of deficiencies that characterize a dwelling (Moore 1990). Housing conditions form a complex array of physical and social factors, and can only be simplistically categorized for analytical purposes. According to Hughes (1977) housing conditions are best defined in comparison. Here, the incidence of deficient housing is the percentage of dwellings that have a rating of over 4.0. As stated by Moore (1990:2), the indicator average is the summary approach.

The main advantage of an indicator is that it combines four independent variables into one quantitative measure. It also reduces the adverse effects of response error by lumping dwellings into fairly broad categories (Mowbray and Khan 1984 in Moore 1990:10). The random assignment of points to variable values is a necessary disadvantage if dwelling conditions are to be compared on a consolidated scale. What some persons might perceive as accurate weighting, others might view as being a perversion of true housing conditions, but if it was

necessary to control for all differences in housing standards, comparisons would be very difficult. Although it is recognized that variables will vary in significance from one group or area to the next, the indicator used here is constant and applies an equal weight to each value. The case study will point more closely at the actual deficiencies, and therefore, give a greater understanding of housing in northern Saskatchewan.

Because the indicator approach to dwelling deficiencies is based on only four variables, a full comprehensive look would point to more dwelling inadequacies, but there is no consistent data on deficiencies such as insulation, building material quality, room sizes and neighborhood environment. In fact, in 1982, the Canadian Council on Social Development (1982:10) concluded that in northern Canada "studies based on Census data underestimate the existence of deplorable housing conditions most Canadians would not tolerate".

6.2 HOUSING CONDITION TECHNIQUE

STATE OF REPAIR: This measure, from the respondent indicates whether their house needs any repairs beyond desirable remodelling or cosmetics. Examples of Census categories are "major repairs needed: (defective wiring, plumbing, structural repairs to floors, ceilings, etc.), "minor repairs needed" (defective siding, broken glass, broken shingles, poor floor coverings, etc.), and "regular

maintenance only" (chimney cleaning, painting, minor repairs, etc.) (Census Canada 1981).

Because of the subjective interpretation of the 'state of repair' variable there is criticism over its useage. It is difficult to ensure that the same criteria by respondents are consistently being used in classifying 'state of repair' (Moore 1990). The 'state of repair' variable reflects the perception of the respondents, therefore making it somewhat of 'subjective' variable. But Grigsby and Rosenberg (1975) point out that the adequacy of housing is a combination of the needs and desire of the occupants as well as the standards set by the government.

The subjective component of the 'state of repair' variable loosely identifies the general condition of the dwelling, or at least relatively as compared to other Canadian housing. Physical condition is one of the most important aspects of housing, and makes a good starting point for a discussion of housing adequacy.

NUMBER OF PERSONS PER ROOM: This variable shows the degree of crowding of a dwelling, and is calculated by dividing the number of persons who permanently live in a dwelling by the number of rooms the dwelling has. A room is defined as "any enclosed area in a dwelling finished and suited for year round living, other than a bathroom, hall, vestibule or a room used solely for business purposes" (Census Canada 1981). If a house has more than one person per room, it

is considered crowded by CMHC.

Criticisms of 'crowding' have been presented by Grigsby and Rosenberg (1975). It does not take into consideration the age or sex of the inhabitants, the size of rooms, amount of actual time spent in the house, or in some cases the amount of time crowding has occurred. But, as the 'state of repair' variable does, the 'crowding' variable gives a general overall view of crowding (Moore 1990).

CENTRAL HEAT: Central heat has been an established norm in Canada for years. In some regions of Canada it is not viewed as a deficiency because of the more temperate climates. But because most of Canada has a harsh climate, central heat is highly desirable in most areas. Central heat comprises permanent electric heat, steam heat and forced air furnaces, while no 'central heat' includes wood stoves, cook stoves, fireplaces and space heaters (Census 1981). For many northerners, a wood stove is an adequate heating system, but for comparison purposes and to keep in line with the Canadian status quo, a wood stove is not viewed as a central heating system (Moore 1990).

BATHROOMS: Outdoor privies or indoor portable toilets are not considered bathrooms. A complete bathroom includes a shower or bathtub, sink and flush toilet (including a chemical flush toilet). Half baths constitute a flush toilet and wash basin with no shower or bathtub (Census 1981). No criticisms of this variable have been found.

Physical housing condition is a standardized concept which refers to the current state of the building, ranging from a house in perfect condition to a worst possible condition (Moore 1990). Theoretically, a house can have nothing wrong with any of its various components (the ideal is a perfectly constructed house in brand new condition). At the other extreme, all components of a house can achieve a worst case, beyond repair rating. This approach used to measure conditions is a refinement of a multidimensional strategy which has been used in the 1980's to assess housing conditions (Ekos 1981; Ekos 1985; Ontario Ministry of Municipal Affairs and Housing 1985; Moore 1990).

Physical condition refers only to the physical shape of a dwelling and is only a partial measure of overall adequacy. This study integrates spatial suitability, completeness of basic facilities and amenities, affordability and the perceived satisfaction of the occupants.

Although this method has been validated by several studies a consistency should somehow be established between the interviewer (myself and an assistant) and another source. Some of my results of Canoe Lake and Jans Bay were compared with 1981, 1986 and 1991 Census data (e.g. crowding, amenities, etc.). The results showed a high degree of similarity, creating confidence in the validity and reliability of my interviewer-based questionnaire.

6.3 THE INDEX OF DISSIMILIARITY

The index of dissimilarity provides a measure of the similarity in the spatial distribution of two sub-groups of the population. It is obtained by the following equation (Short 1984:140):

$$ID_{xy} = \frac{\text{The Sum Of } (X_i - Y_i)}{2}$$

where X_i represents the percentage of the X population in the i th area, Y_i represents the percentage of the Y population in the i th area and ID_{xy} is the index of dissimilarity. To calculate the index the 'difference' between the percentage of each group in all areas is added up and divided by two. The ID value ranges from 0 to 100. When the ID value is close to 0, it implies that the two populations have similar spatial distributions, the closer the calculated value is to 100, the more dissimilar are the two spatial distributions and hence a greater degree of segregation (Short 1984). As a general statement, the closer housing is in condition, the greater the similarity. The index of dissimilarity will be used for the 1991 micro study.

6.4 PEARSON'S PRODUCT MOMENT CORRELATION

Pearson's product moment correlation is a parametric measure of the relationship (closeness) between two variables measured on an interval scale from normally distributed populations. It assumes normality: frequency distribution of

both variables is normal (Ebdon 1987:91). It measures the linear relationship - the extent to which points on a scatterplot are clustered about a straight line. The covariance is a measure of how the increase in one variable (x) is mirrored by a proportionate increase or decrease in the other variable (y). A large covariance between -1 and +1 means the two vary together, with 0.0 indicating no correlation (Ebdon 1987:91). Therefore, the farther from -1 and +1, and the closer to 0.0, the less the correlation. Product moment correlation is used with interval data and is a parametric measure of the degree of fit between two samples, as opposed to being a test of whether the samples are different. If the covariance is the same as the total variance, the ratio will be -1 or +1. Degrees of freedom = n-2. Sx and Sy are the sample standard deviations of the two variables.

The product moment correlation between the two variables can be calculated using the following equation:

$$r = \frac{\text{the sum of } (xy/n) - \text{the means of } xy}{SxSy}$$

6.5 STUDENT'S t FOR MICRO STUDY

Student's t is a parametric test of the measure of the difference between the means of two samples, and to test for significant differences between the means of populations, given samples. It assumes normality and a reasonable sample size. The smaller the value of t, the more similar the

samples, while larger values of t are good to reject H_0 .

H_0 : the mean of X equals the mean of Y
The two sets of data are from a random common,
normally distributed population (there is no
difference between the means).

H_1 : the mean of X does not equal the mean of Y
There is a difference between the means of the two
populations. Reject H_0 if the calculated value of t
is greater than the critical value of t . Critical
value is the point where the cut off is between
acceptance and rejection.

6.6 DISCUSSION

This chapter discussed the techniques used for information gathering and data analysis. Discriminant analysis, factor analysis and other statistical techniques were studied but because of the nature of the data (nominal, missing, did not fulfill requirements, etc.) they were not useable in this study. Therefore a composite measure, the index of dissimilarity, t -test, product moment correlation, interviews and simple description were chosen as the analytical tools.

CHAPTER 7

CANADA AND NORTHERN SASKATCHEWAN HOUSING: AN OVERVIEW

INTRODUCTION

The first section of this chapter presents an overview of housing conditions in Canada and concludes with an analysis of housing conditions on Canadian reserves. A comparison of Canadian reserve housing to non-reserve Canadian housing is presented in the second section. Crowding and amenities, along with the distribution of deficient Saskatchewan reserve housing and indicator ratings for northern Saskatchewan Census Division #18 concludes the chapter.

7.1 HOUSING CONDITIONS OF CANADA'S NON-RESERVE HOUSING STOCK: AN OVERVIEW

Like many physical assets, housing deteriorates with time and use. Not suprisingly then, about 25% of Canadian housing stock, excluding reserves, require either minor or major repairs (Table 7.1). The need for minor repairs of Canadian housing has increased somewhat in the 1980's, while the need for major repairs has declined.

The need for major dwelling repair by tenure differs. It is somewhat higher for owned units than rented units, although the percentage of owned units requiring major repairs declined

throughout the 1980's (Table 7.2). Units requiring minor repair is less for owned units than rental units.

TABLE 7.1

Percentage of Canadian Housing Stock Requiring Repairs					
	1981	1986	1987	1989	1991
Need For Major Repairs	12.9	12.4	10.5	10.0	8.0
Need For Minor Repairs	14.9	13.8	16.0	15.0	17.0
Regular Maintenance Only	72.2	73.7	73.5	75.0	73.0

Source: Census Canada 1981, 1986 and 1991

TABLE 7.2

Need For Dwelling Repair in Canada by Tenure 1982-1989 (%)				
	1982	1985	1987	1989
	Own/Rent	Own/Rent	Own/Rent	Own/Rent
Need Major Repairs	14.1/10.9	13.4/10.8	11.0/ 9.7	10.3/ 9.6
Need Minor Repairs	14.1/16.3	12.6/16.0	15.1/18.0	13.5/17.4
Regular Maintenance	71.8/72.8	74.1/73.2	73.3/73.2	76.2/73.0

Source: CMHC 1991

The belief that the need for major repairs is greatest in older housing is true. Although less pronounced, the same relationship holds for minor repairs (Table 7.3). Houses built between 1981 and 1989 show less than 2% need major repairs, while those built before 1941 indicate over one-third

TABLE 7.3

Need for Repairs and Age of House				
	Age of Stock %	Need For Major	Repairs Minor	Maintenance Only
< 1941	17.8	38.4	24.9	13.6
1941-1960	22.4	26.0	27.5	20.9
1961-1970	19.3	16.2	20.4	19.4
1971-1980	26.2	17.3	22.6	28.1
1981-1989	14.3	1.9	4.5	17.9

Source: Census Canada 1986; CMHC 1991

requiring major repairs.

Housing stock condition varies by size of settlement and region. The greatest concentration of dwellings in need of major repairs occurs in the smaller urban centers and rural areas where homeownership is particularly high (Table 7.4). Homeowners in larger metropolitan centers consistently report fewer major repairs than those living in rural areas, although the need for minor repairs is reported as much greater in cities than in less populated areas. Regionally, the highest concentrations of households that report the need for major repairs are in the northern prairie provinces (Census Canada 1981 and 1986). These areas have similar economic situations.

TABLE 7.4

Need for Repair by Community Size				
Households by Community Size	%	Need for Repair		Maintenance Only
		Major	Minor	
Urban Areas > 100,000	60.1	17.6	55.3	62.3
Urban Areas < 100,000	23.7	26.3	25.7	23.4
Rural Areas	16.2	26.1	19.0	14.3

Source: Census Canada 1986; CHMC 1991

A common belief in Canada is that persons living below the poverty line more often live in dwellings needing repair, while other Canadians live in better housing. Table 7.5 confirms this belief. In 1989, sixty per cent more low-income households reported houses needing major repairs compared to those with high incomes. The first quintile represents the lowest income category.

TABLE 7.5

Need for Major Repair by Household Income 1985-1989 (%)				
Income Quintile	1985	1987	1988	1989
First Quintile	22.7	24.7	21.7	23.6
Second Quintile	22.9	21.8	22.4	22.2
Third Quintile	19.2	19.6	20.8	22.1
Fourth Quintile	19.1	18.2	18.8	17.4
Fifth Quintile	16.0	15.7	16.3	14.7

Source: CMHC 1991

These tables indicate that appropriate investment in upkeep is necessary. Properly maintaining social housing should be a priority for governments. The key variables are the age of housing and household income. Generally speaking, dwellings deteriorate with age. On the other hand, dwellings of all ages remain in satisfactory condition if occupied by higher income families.

Now I would like to compare national figures on housing with reserve housing. It will be found that reserve housing and northern housing is in much greater need of repair than general Canadian housing.

7.2 HOUSING CONDITIONS ON CANADIAN RESERVES: AN OVERVIEW

The number of houses on reserves in Canada increased by 113% from 25,206 in 1963 to 53,686 in 1986 (Census Canada 1971 and 1986; CMHC 1991). Similarly, housing in the north has increased dramatically during this period. Since the early 1970's, reserve and northern housing stock has been growing at a faster rate than have these populations. This is indicated

by the drop in number of persons per house. This decreased from 6.0 in 1963 to 4.8 in 1986 on Canadian reserves. During this same period the quality and size of housing has improved. Houses with sewer or septic tanks on reserves increased from under 10% to 67%, and houses with running water also increased from less than 14% to 75%. From 1971 to 1986, reserve houses with central heat increased from 23.1% to 68.9% (Census Canada 1986; DIAND 1988).

The federal government spends approximately \$300 million each year on maintaining and building reserve housing in Canada. In Saskatchewan alone, the total 1989/1990 INAC budget was \$290 million. Of this, \$77 million was for capital facilities and community services, which includes housing (Saskatchewan Indian Oct. 1990:2). The amount of funding each band receives is based on population although adjustments are made for higher cost construction in the north.

From 1961 to 1986, the registered Indian population has increased from 191,709 to 415,898 (Census Canada 1961 and 1986). One major factor in this sharp increase is due to the implementation of Bill C-31 in 1985. From 1985 to 1987, 56,518 Indians were reinstated under Bill C-31 (DIAND Indian Register 1987). In 1990, 1,002,000 persons were registered as having Indian ancestry in Canada (Saskatchewan Indian Oct. 1990). Furthermore, in 1966 80.5% of registered Indians lived on reserves but only 68.1% lived on reserves by 1986. By 1987, this figure had fallen to 64.6% (DIAND Indian Register 1987).

Off-reserve migration has helped to somewhat alleviate reserve housing demands.

The following table portrays the registered Indian population by region. It can be noted that the provincial/territorial distribution has changed very little in 20 years. Saskatchewan has the second largest provincial registered Indian population in Canada, next to Ontario, with 3.6% of its population registered Indian.

TABLE 7.6

Distribution of Registered Indian Population by Region and On and Off-Reserve (%)					
Region	Pop 1986	1966 %	1986 %	Off-Res 1966 %	Off-Res 1986 %
Atlantic	11,132	3.8	4.0	24.1	28.8
Quebec	22,276	10.3	10.0	19.2	20.3
Ontario	39,604	23.4	22.3	30.3	36.1
Manitoba	21,753	13.8	14.8	13.7	28.3
Saskatchewan	35,724	14.0	15.6	9.1	36.0
Alberta	32,467	11.3	12.6	11.2	28.1
B.C.	31,039	20.8	17.2	20.5	38.6
Yukon/N.W.T.	6,768	2.6	3.4	4.5	18.6
Canada	200,763	100.0	100.0	16.9	29.4

Source: DIAND 1988; DIAND Indian Register 1986

7.3 COMPARISON OF CANADIAN RESERVE HOUSING TO NON-RESERVE CANADIAN HOUSING

Table 7.7 displays of the overall level of physical housing conditions on Canadian reserves in the mid 1980's. (Because of the unavailability of data for Metis housing, it cannot be accurately compared to reserves, but is viewed by CMHC as being somewhat similar). It is obvious that much reserve housing is in poor physical condition. While that is

probably not startling news to most Canadians, it should be noted that 47% of reserve dwellings are judged as physically substandard to the degree that they require immediate repair. The modal response is category 5 (substandard), 18.3% are beyond repair or very poor.

TABLE 7.7

Ratings of Overall Level of Physical Condition of Canadian Reserves		
CONDITION	CATEGORY	PERCENT
Excellent	1	2.0
Good	2	9.5
Fair	3	19.6
Minimum Acceptable	4	21.7
Substandard	5	28.8
Very Poor	6	16.3
Beyond Repair	7	2.0

Source: Ekos 1985; Census Canada 1986

After showing that nearly half of Canadian reserve housing is substandard or worse, how does it compare to the rest of the Canadian housing stock? The comparison shows that reserve stock is consistently in much worse condition than the overall Canadian housing stock (Table 7.8). Table 7.8 also shows the results of the 1981 Census repair need question and the 1991 housing survey of Canoe Lake Reserve and Jans Bay conducted by the author.

Table 7.9 shows the most recurring problem areas for housing on Canadian reserves. As can be seen, windows and doors are frequently in substandard condition. Other substandard areas are attached structures, soffit and fascia, interior walls and ceilings, exterior siding and structural

TABLE 7.8

Comparison of Occupant Ratings of Repair Need 1981 and 1991(%)
Canadian Reserve Versus Non-Reserve Housing and CD #18 Housing

CATEGORY	1981 RESERVE HOUSING	1981 NON-RES HOUSING	1981 SASK. Native	1981 CD#18	1991 JANS BAY	1991 CANOE LAKE
Major Repairs	49.5	6.7	19.0	13.1	38.5	42.7
Minor Repairs	27.0	17.0	28.7	26.8	34.6	25.0
Regular Maint.	23.5	76.3	52.3	60.0	26.9	32.3

Source: Census Canada 1981; Ekos 1985; Questionnaire 1991

foundations. These are the type of items that require ongoing maintenance practices.

TABLE 7.9

Major Areas in Substandard Condition for Canadian
Reserve Housing, Canoe Lake Reserve and Jans Bay

CATEGORY	PERCENTAGE IN SUBSTANDARD CONDITION		
	Canada 1981	Canoe Lake 1991	Jans Bay 1991
Windows and Doors	49	39	58
Attached Structures	49	-	-
Soffit and Facia	43	-	-
Interior Walls and Ceilings	40	23	56
Exterior Siding	40	37	60
Structural Foundations	37	-	-

Source: Ekos 1985; Questionnaire 1991

7.4 CROWDING-SPATIAL SUITABILITY

Various research has found that physical condition is a stronger correlate of dwelling condition than is crowding (Ekos 1981; Ekos 1985; CMHC 1988), but crowding (spatial suitability) is still a key dimension of overall shelter adequacy. Crowding is a major problem on reserves and northern communities. Compared to the general Canadian population,

crowding of reserve housing and northern housing is much greater. As Table 7.10 shows, 2.3% of Canadians live in crowded conditions (> 1.0 persons per room), whereas 36.0% of reserve households are overcrowded. If this figure is added to the 17.4% who live in houses with exactly 1 person per room, then over 50% of Canadian reserve households are classified as living in overcrowded conditions. In CD #18 (1986), 65% of reserve housing and 40.7% of non-reserve housing (including the major centers) has 1.0 or more persons per room (Census Canada 1986).

TABLE 7.10

A Comparison of Crowding Between Canada, Canadian Reserves and CD #18					
Variable	Canada	Cdn. CD #18 RES Reserve 1986	CD #18 1986	CD #18 1981	Non-Res 1986
Average No. Persons per Dwelling	2.9	5.1	5.4	3.7	4.9
% of Households With > 1 Person Per Room	2.3	36.0	65.0	-	40.7

Source: Census Canada 1981 and 1986

The average number of persons per dwelling on Canadian reserves is 5.1 compared to 2.9 for Canada (Table 7.10). The conclusion is that crowding is a very serious problem on Canadian reserves. Crowding is also a serious problem in northern communities. As can be seen from Table 7.10 the average number of persons per dwelling in CD #18 non-reserve communities has increased from 3.7 in 1981 to 4.9 in 1986. This can be directly linked to housing programs. The 1991

micro study confirms this point.

7.5 HOUSING AMENITIES

The Canadian norm requires four basic amenities if a house is considered adequate. They are running water, a flush toilet, a bath or shower and central heat. Because of the importance of these amenities to occupant health, safety and comfort, they are considered important by Canada Mortgage and Housing Corporation. Thirty-eight per cent of reserve housing is amenity deficient compared to less than two per cent of overall Canadian housing stock (Table 7.11). In terms of amenities, Saskatchewan reserve housing is rated the lowest (61%) of all provinces for lacking one or more basic facility (Ekos 1985).

TABLE 7.11

% Dwellings Lacking Basic Amenities on Canadian Reserves and CD #18					
Variable	Cdn. Res 1985	CD #18 Unorg 1981 1986	CD #18 Res 1981 1986		
No Piped Water	34	-- --	-- --		
No Bath or Shower	38	-- --	-- --		
No Piped Waste Disposal	34	-- 32	-- 57		
No Central Heat	40	85 36	62 --		

Source: Census Canada 1981 and 1986; Ekos 1985

7.6 SASKATCHEWAN DISTRIBUTION OF DEFICIENT RESERVE HOUSING

Table 7.12 shows that deficient Native housing in the early 1980's is highest in Saskatchewan, Manitoba and the Territories. Saskatchewan is second only to the Territories in

deficient Native housing.

In CD #18 (1981), there are 3180 on-reserve houses and 4415 off-reserve Native and non-Native dwellings. Of the 4415 off-reserve dwellings, 1780 (40.3%) are in CD #18 unorganized. The other 2635 dwellings are located in the major centers of La Ronge, Air Ronge, Creighton and Flin Flon (part).

TABLE 7.12

Percentage Distribution of Native Households by Indicator Ratings, Province/Region Canada			
Region	Poor Condition	Inadequate	Good/Adequate
Atlantic	2.0	10.0	88.0
Quebec	1.0	8.0	91.0
Ontario	3.0	12.0	85.0
Manitoba	7.0	22.5	70.5
Saskatchewan	8.0	25.0	67.0
Alberta	4.0	12.5	83.5
British Columbia	1.5	9.0	89.5
Territories	9.0	26.0	65.0
Canada	4.0	13.0	83.0

Source: 1981 Native Summary Tapes; Moore 1990

In 1981, 38% of all deficient Native dwellings in Saskatchewan were in the census divisions of 16, 17 and 18, as compared to only 3% deficiency for non-Native dwellings in these same census divisions (Moore 1990).

7.7 COMPOSITE INDEX: INDICATOR RATINGS FOR SASKATCHEWAN

Table 7.13 portrays indicator ratings for various census divisions in Saskatchewan. CD #18 deficient housing is higher than the other seventeen census divisions in Saskatchewan.

In CD #18 unorganized, most households (1780) are Metis occupied. These units have a high average rating of 3.5 in

1981 (as compared to 4.8 for CD #18 reserves). Underdevelopment in the north cannot fully explain these dwelling conditions because housing in the major centers (largely non-Native) of CD #18 is in much better condition (rated at 1.5) than non-reserve Native housing (rated at 3.5) and reserve housing (rated at 4.8). The problem appears to be

TABLE 7.13

Indicator Ratings for Native and Non-Native Dwellings Selected CD's, Saskatchewan 1981								
Sask. Census Division	Total Dwellings	Good-Adequate 0-4		Inadequate 5-6		7-8	Indicator Average (%) (8)	
		Total	%	Total	%	Total		
All Sask.								
Native	14,185	10,665	75.2	2460	17.3	1055	7.4	3.0
Other	318,525	314,425	98.7	3725	1.2	375	0.1	1.0
CD #18								
Reserves	3180	1955	61.5	800	25.2	425	13.4	4.8
Non-native	2635	2610	99.1	20	0.8	5	0.2	1.5
Unorganized	1780	1141	64.1	409	23.0	23	12.9	3.5
CD #17								
Native	1155	700	60.6	305	26.4	145	12.6	3.8
Other	9765	9480	97.1	255	2.6	30	0.3	1.3
CD #13								
Native	250	105	42.0	105	42.0	45	18.0	4.3
Other	8755	8645	98.7	115	1.3	5	0.1	1.2
CD # 10								
Native	445	265	59.6	130	29.2	60	13.5	3.9
Other	8115	7845	96.7	260	3.2	5	0.1	1.3
CD #1								
Native	185	105	56.8	55	29.7	30	16.2	3.7
Other	11060	10960	99.1	95	0.9	5	0.01	1.0
Other CD's								
Native	7955	7535	71.6	1065	21.3	365	7.4	3.3
Other	278,165	274,875	97.9	2980	2.3	325	0.3	1.2

Source: Native Summary Tapes 1981; Census Canada 1981; Moore 1990

one of affordability and lifestyle. Twenty-five per cent of northern Saskatchewan off-reserve Native housing in CD #18 in 1981 falls within the inadequate categories with indicator ratings between 5 and 8.

7.8 DISCUSSION

In conclusion, it has been shown that Canadian reserve housing and northern Native/Metis housing is in much worse condition and much more overcrowded than general Canadian housing. Age of housing, community size and household income were shown to be strong indicators of housing condition in Canada. Amenity deficiencies are highest amongst reserve and northern Native/Metis populations. Also, it was found that deficient reserve/Metis housing in Canada is highest in the northern regions of Manitoba and Saskatchewan.

Chapter 8 focuses on the micro study of Canoe Lake Reserve and Jans Bay. A comparison of Canoe Lake Reserve housing with the neighbouring Metis community of Jans Bay will show which level of government, federal or provincial, maintains its northern Saskatchewan housing stock better.

CHAPTER 8

DATA ANALYSIS OF HOUSING FOR CANOE LAKE RESERVE AND JANS BAY

INTRODUCTION

This chapter deals largely with the micro study of Jans Bay and Canoe Lake Reserve. It begins with some preliminary descriptive statistics, the results of the composite index are then analyzed, followed by the results of the product-moment correlation and Student's t test. The results of the index of dissimilarity are then analyzed, followed by a discussion of interviews.

8.1 DESCRIPTIVE STATISTICS

An examination of some simple preliminary statistics is quite useful because it gives an overview of the housing variables. Because geographers study spatial variations, an examination of the mean, standard deviation and range provide useful insights into the spatial variance of housing in northern Saskatchewan (Table 8.1 macro and Table 8.2 micro). In general, the means and standard deviations indicate that there exists considerable variations in values among northern reserves and non-reserve communities. The minimum and maximum variable values also suggest a fairly wide range of economic

conditions and housing conditions among communities and reserves. The standard deviation is "the measure of dispersion most commonly applied to geographical data" (Ebdon 1987:28): 56% of the individuals have values which are within 1.5 standard deviations on either side of the mean; at least 75% of are within two standard deviations of the mean, and a minimum of 89% are within three standard deviations of the mean (Ebdon 1987:28).

From Table 8.1, it can be seen that fairly wide variations in the variables exist amongst northern CD #18 communities and reserves. The population varies from a low of 43 persons to a high of 2696 persons, and the 'percent native' variable from 1 percent to 99 percent.

TABLE 8.1

Descriptive Statistics of Variables Saskatchewan 1986, All CD #18				
Variable	Mean	Std Dev	Min	Max
Population of Community	502.60	497.39	43.00	2696.00
% Native	84.21	24.98	1.00	99.00
Value of Dwelling \$	17085.47	17849.22	0.00	59722.00
Household Income \$	23523.40	4751.23	17596.00	37612.00
# Persons per Room	1.01	.27	.50	1.60
# Persons per Family	5.17	.95	3.10	6.60
# Children per Family	2.77	.70	.90	4.00
Part Rate Labor Force %	44.94	13.70	18.00	79.00
% Transfer Payments	29.82	10.26	8.70	48.80
Average Gross Rent \$	188.09	193.43	0.00	665.00
'Old'% Built Before 1971	26.19	19.98	0.00	92.00
'Mod' % Built 1971-1980	48.72	17.83	11.00	98.00
'New'% Built 1981-1986	26.04	16.82	0.00	75.00
% With Central Heat	53.09	23.46	14.00	98.00
% Reserve Housing	44.68	50.25	0.00	100.00
% Owned Dwellings	34.91	33.92	0.00	99.00

Source: Census Canada 1986

The mean population of 502 with a standard deviation of 487 illustrates the low population of northern Saskatchewan communities/reserves. Value of dwellings range from \$0 to \$59,722, indicating the non-market value of housing in many communities, especially reserves where most housing has a dollar value of \$0 according to Census Canada. Housing in small centres and reserves has virtually no market value, with its only true value being social. Average household income varies between \$17,596 and \$37,612 reflecting the wide spread of household income from location to location.

Age of housing is also an important variable. On average 48.7% of CD #18 housing was built between 1971 and 1980, with 26% built before 1971 and 26% built from 1981 to 1986. In the 1970's, when the Canadian economy was very prosperous, many social housing units were constructed across Canada. Although the number of units built was very high, quality of construction and construction materials was sometimes dubious. The mid 1970's saw the transformation from standard 2x4 exterior walls with R12 insulation, vinyl slider windows and cheap interior finishings to 2x6 exterior walls with R20 insulation, triple glazed windows and upgraded interiors. But because governments were largely concerned with housing volume and costs, their building specifications on social housing changed slowly. As a result, most single family social housing units built in the 1970's were based on volume and low cost construction. For northern Saskatchewan this means that most

existing housing built prior to 1980 has poor quality insulation and windows, and cheap interior finishes. The end result is small crowded houses with rapid deterioration rates with occupants who have low incomes and few funds for maintenance purposes. If the construction quality of social housing units had been higher, deterioration rates may have been lower.

Table 8.2 is based on my 1991 questionnaire of residents of Canoe Lake Reserve and the Metis community of Jans Bay. As can be seen, there exists a wide variation in individual housing conditions on Canoe Lake Reserve and Jans Bay. Exterior condition rates anywhere from very good to poor, while exterior repairs go from units needing only minor repairs to units needing more than one major repair. The same holds true for interior conditions. The year built variable is once again associated with housing condition. As a rule, the newer the house, the better physical condition of the house. All other variables show the wide range of housing conditions in Jans Bay and Canoe Lake Reserve and occupant perception of their own house's condition. Most interviewed people felt their house was in relatively decent shape, although many needed extensive repairs to bring them up to southern Canadian standards.

TABLE 8.2

Jans Bay and Canoe Lake Reserve
Descriptive Statistics of Variables (Micro Study 1991)

Variable	Mean	Std Dev	Min	Max
Type of Dwelling	1.03	.23	1.00	3.00
Exterior Condition	2.33	.95	1.00	4.00
Exterior Repairs	2.01	.79	1.00	3.00
Interior Condition	2.32	.97	1.00	4.00
Basement Type	1.32	.63	1.00	3.00
# Bedrooms	3.09	.71	1.00	5.00
Year Built 1966-1970; 1971-1975 1976-1980; 1981-1985; 1986-1990	4.42	1.20	2.00	6.00
Ethnicity	1.08	.37	1.00	3.00
Occupation	1.23	.45	1.00	3.00
Income	4.17	1.18	1.00	7.00
Income Source	3.56	1.45	1.00	6.00
Resident of Community	5.81	2.68	1.00	13.00
Own/Rent	1.81	.39	1.00	2.00
Heat Type	1.88	1.19	1.00	5.00
Water Source	1.03	.18	1.00	2.00
Toilet Type	1.08	.37	1.00	3.00
Rent/Mortgage Payment	1.83	1.46	1.00	6.00
Heat Cost	2.10	1.43	1.00	5.00
Power Cost	1.82	.95	1.00	4.00
Sewer/Water Cost	1.27	.44	1.00	2.00
Property Taxes	1.01	.11	1.00	2.00
Is Your House Adequate	1.19	.39	1.00	2.00
Have You Worked Construction	1.49	.50	1.00	2.00
How House Built	2.30	1.27	1.00	6.00
Owner Help Build	1.67	.47	1.00	2.00
How Repair House	2.54	1.20	1.00	4.00
House Value \$	1.69	1.65	1.00	9.00
Costs To Repair House	1.79	1.47	1.00	6.00
Who Should Repair House	1.43	.89	1.00	4.00
Lifespan Of House	2.20	.82	1.00	4.00
Can You Repair House	1.13	.34	1.00	2.00
Best Way To Repair House	1.99	.94	1.00	4.00
Prefer To Own or Rent	1.12	.33	1.00	2.00
Who Should Fix	1.43	.89	1.00	4.00
Floor Problems	1.80	.40	1.00	2.00
Door/Window Problems	1.56	.50	1.00	2.00
Wall Problems	1.82	.38	1.00	2.00
Heating Problems	1.88	.33	1.00	2.00
Plumbing Problems	1.90	.30	1.00	2.00
Wiring Problems	1.98	.15	1.00	2.00
Basement Problems	1.99	.11	1.00	2.00
Your Exterior Perception	2.49	.90	1.00	4.00
Your Interior Perception	2.58	.90	1.00	4.00
Your View of Housing Problems	2.27	1.62	1.00	6.00
Government Involved in Housing	1.02	.15	1.00	2.00
Best Program for Housing	2.36	1.02	1.00	6.00
Your Biggest Concern for North	2.10	1.13	1.00	6.00

Source: 1991 Questionnaire

8.2 COMPOSITE INDEX: INDICATOR RATINGS FOR CANOE LAKE RESERVE AND JANS BAY 1991

The indicator value of 3.7 for Jans Bay is .90 units higher than the indicator value for Canoe Lake Reserve of 2.8, indicating higher dwelling deficiencies at Jans Bay (Table 8.3). If a dwelling age variable is added, Jans Bay rates 1.0 unit higher than Canoe Lake Reserve. Although both Jans Bay and Canoe Lake Reserve fall within the adequate category (2-4) of dwelling ratings, Jans Bay with an indicator of 3.7 is very close to the inadequate category of > 4.0 . This shows the housing in 1991 at Jans Bay is not only less adequate than Canoe Lake Reserve housing but also indicates that more of Jans Bay housing than Canoe Lake Reserve housing must fall within the inadequate category of > 4.0 in order to average a 3.7 rating.

TABLE 8.3

Indicator Ratings for Canoe Lake Reserve and Jans Bay 1991					
	Crowd	Bathroom	State Repair	Central Heat	Total
Canoe Lake	1	0.20	1.07	0.53	2.8
Jans Bay	2	0.32	0.93	0.42	3.7

Source: Questionnaire 1991

8.3 COMPOSITE INDEX: INDICATOR RATINGS FOR ALL CD #18

Of the nineteen inhabited reserves in CD #18 in 1981, eleven (58%) fall within the inadequate category (> 4.0 to 6.0) of the housing conditions indicator and four (21%) are within the poor category (Table 8.4). Only four reserve communities are within the adequate guidelines of 4.0 or less.

This compares to a rating of 3.37 for CD #18 unorganized and an average rating of 1.54 for the three major centers (Table 8.5). Indicator ratings for 1986 are not available because only two of the four required variables are reported in the 1986 Census.

TABLE 8.4

Indicator Ratings For Reserve Communities CD #18 1981					
Community	# Persons Per Room	Lacking Bathroom	State Repair	Lacking Cen Heat	Ind Tot.
Canoe Lake #165	2.0	0.31	0.99	0.79	4.06
Chicken #224	2.0	1.40	1.46	0.95	5.81
Chicken #225	1.0	0.00	0.40	0.40	1.80
Cumberland #20	2.0	0.50	1.00	1.00	4.50
Fond du Lac #229	2.0	1.28	0.35	0.88	4.51
Grandmother's Bay #219	1.0	2.00	0.40	1.00	4.40
Kitasakie #156B	3.0	1.28	1.15	0.90	6.33
La Loche #223	2.0	0.66	0.00	0.66	3.32
Lac La Hache #220	3.0	1.14	1.14	1.00	6.28
Lac La Ronge #156	2.0	1.50	0.58	0.66	4.74
Montreal Lake #106	2.0	1.88	0.68	0.87	5.43
Pelican Narrows #154B	3.0	1.06	0.99	1.00	6.05
Peter Pond Lake #193	1.0	1.66	1.58	0.75	4.99
Southend #200	2.0	1.94	0.91	0.90	4.64
Stanley #157	2.0	1.78	0.84	1.00	5.62
Sturgeon Weir #184F	3.0	0.00	0.00	1.00	4.00
Sucker River #156C	2.0	1.00	1.00	0.75	4.75
Turnor Lake #193B	2.0	2.00	1.40	1.00	6.40
Wapachewanak #192D	2.0	0.16	0.85	0.85	3.86
Average Indicator					4.81

Source: Census Canada 1981

TABLE 8.5

Indicator Ratings for Non-Reserve Communities CD #18 1981					
Community	# Persons Per Room	Lacking Bathroom	State Repair	Lacking Cen Heat	Ind. Total
CD #18 Unorganized	2.0	0.48	0.50	0.39	3.37
Creighton	1.0	0.00	0.47	0.09	1.56
Flin Flon (part)	1.0	0.08	0.40	0.16	1.64
La Ronge	1.0	0.02	0.30	0.09	1.41

Source: Census Canada 1981

The four reserves with ratings > 6.0 are scattered throughout CD #18 and create no spatial pattern (Map 1.0). Pelican Narrows with an indicator rating of 6.05, is located in the eastern region of CD #18 north of the Hanson Lake road. Lac La Hache (6.28) is located on the eastern shore of Wollaston Lake in north eastern Saskatchewan and is accessible only by air in the summer and a winter road in winter. Kitasakie's (6.33) location near Air Ronge in the south central area of CD #18 is close to Lac La Ronge Reserve but has a rating much higher than that of Lac La Ronge Reserve (4.74). The reserve with the highest indicator rating is Turnor Lake Reserve (6.4) and is located in the north western region of CD #18 east of the town of La Loche. La Loche Reserve #223 has one of the lowest ratings at 3.32 but is located only seventy-five kilometers from Turnor Lake Reserve.

The three reserves with the lowest indicator ratings are Chicken #225 (1.80), La Loche (3.32) and Wapachewanak (3.86). Again, location and accessibility makes very little difference on the indicator ratings. For example, Chicken Reserve #225 (1.80) is located across the lake from Chicken Reserve #224 (5.81) in the northerly portion of Saskatchewan but there is a major difference of 4.01 in their indicator ratings. Again, La Loche Reserve with an indicator rating of 3.32 is in the same proximity of Turnor Lake Reserve with an indicator rating of 6.40, the highest in all of CD #18. Wapachewanak Reserve also has a low indicator rating of 3.86, and is approximately 180 kilometers off the main road between Beauval and Buffalo Narrows, but it has one of the lowest ratings of CD #18

reserves.

Unfortunately, census data for the indicator ratings for individual Metis communities in CD #18 unorganized is unavailable but their collective indicator rating of 3.37 is significantly lower than that of CD #18 reserves at 4.81. This is good evidence that in 1981 CD #18 non-reserve communities were better housed than their counterparts on the reserves. The case study of Canoe Lake Reserve and Jans Bay, along with visual observations of other northern communities and reserves shows how this changed in the 1980's, with the final result being that by the end of the 1980's reserve housing in CD #18 became better than that of the smaller non-reserve communities in northern Saskatchewan. A switch occurred, largely due to a difference in funding available from two different levels of government - federal and provincial.

8.4 AGE PROFILE OF DWELLINGS: CANOE LAKE RESERVE AND JANS BAY

Table 8.6 shows the age of surveyed housing on Canoe Lake Reserve and Jans Bay. As can be seen, the large majority of housing at Jans Bay (62.5%) was built between 1976 and 1980, with only 16.7% built after 1980. In contrast, Canoe Lake Reserve had 53.1% of housing constructed subsequent to 1980. This is a strong indicator of the federal government and INAC commitment to long term housing and upgrading on reserves. In contrast, new housing in small off-reserve communities in northern Saskatchewan has been on the decline since 1980. Since 1986, the vast majority of new off-reserve housing in CD #18 unorganized has been constructed by CMHC as rental units.

SHC has built none and has extremely limited resources for maintenance purposes (SHC, p.c., February 1991).

Table 8.6

Age Difference of 'Interviewed' Housing Between Canoe Lake Reserve and Jans Bay (1991)								
Location	Total Interv.	Total Units	Before 1966	1966- 1970	1971- 1975	1976- 1980	1981- 1985	1986 1990
Canoe Lake	66	110	1	3	16	17	17	12
Jans Bay	24	35	0	0	5	15	1	3

Source: Questionnaire 1991

Deterioration of the existing mortgaged stock has caused great alarm to SHC (SHC, p.c., February 1991) but government cutbacks have created limited resources to upgrade existing housing stock. Today (1990's) CMHC has begun putting resources into northern Saskatchewan off-reserve housing because of the vast deterioration of Saskatchewan's northern housing stock in the past decade. There is a realization that the problems will not disappear but, on the contrary, become worse.

8.5 PEARSON PRODUCT-MOMENT CORRELATION

Table 8.7 shows the results of the Pearson product-moment correlation of the variables from Canoe Lake Reserve and Jans Bay (1991). In this case it is simply used as a descriptive measure of the degree of correlation between one variable from two samples (Canoe Lake Reserve and Jans Bay) as opposed as a measure of the extent to which two variables vary together. It is assumed that the variables come from normally distributed populations. 'Y' denotes yes, there is significant covariance, 'N' denotes no significant covariance and 'M' denotes some,

but limited covariance.

TABLE 8.7

Product Moment Correlation Canoe Lake Reserve and Jans Bay 1991					
Variable	Std Dev X	Std Dev Y	DF	r	Sig
House Type	46.08	44.20	1	0.99	N
Exterior Condition	11.71	18.15	3	0.85	N
Exterior Repairs	7.43	8.98	1	-0.75	M
Interior Condition	12.91	13.78	3	0.77	M
Interior Repairs	5.38	5.89	1	-0.39	Y
Basement Type	32.44	31.18	1	0.99	N
Number of Bedrooms	28.77	37.93	3	0.98	N
Years Built	11.76	21.77	4	0.48	Y
Ethnicity	33.43	33.33	1	0.99	N
Occupation	33.33	33.33	1	0.99	N
Monthly Income	14.78	14.06	5	0.69	M
Income Source	22.52	30.41	4	0.97	N
# Persons Living House	5.12	6.29	11	0.72	M
Prefer to Own or Rent	40.90	4.19	0	1.00	N
Heat Type	17.37	16.11	3	0.95	N
Water Source	47.00	45.80	0	1.00	N
Toilet Type	43.96	44.20	1	0.99	N
Mortgage/Rent Cost	36.60	28.17	4	-0.20	Y
Heat Cost	29.98	28.37	4	-0.21	Y
Electricity Cost	28.60	22.81	2	-0.41	Y
Sewer/Water Cost	50.00	50.00	0	-1.00	N
Monthly Property Taxes	50.00	45.80	0	0.99	N
Adequate For Living In	33.30	25.00	0	0.99	N
Worked Construction	3.00	4.19	0	-1.00	N
Who/How Built House	23.54	35.42	4	0.76	M
Owner Involved Const.	15.19	20.80	0	1.00	N
How House Maintained	6.18	17.68	2	-0.73	M
Value Of House If Sold	20.52	28.48	6	0.87	N
Cost Repairs 5 Years	27.29	23.20	4	0.88	N
Who Repairs House	32.23	25.00	2	0.91	N
Lifespan You Think	12.94	25.16	2	0.56	Y
Can You Do Repairs	36.40	37.50	0	0.99	N
Prefer To Own Or Rent	47.00	12.50	0	1.00	N
Best Way Get Repairs	20.56	24.97	2	-0.65	Y
Who You Think Repair	28.08	35.98	1	-0.54	Y
Roof Problems	34.80	16.69	0	1.00	N
Floor Problems	24.19	4.19	0	1.02	N
Door/Windor Problems	10.59	8.29	0	-1.00	N
Wall Problems	27.30	45.80	0	1.00	N
Heating Problems	37.90	37.50	0	0.99	N
Plumbing Problems	39.40	41.70	0	1.00	N
Wiring Problems	47.00	50.00	0	1.00	N
Basement Problems	48.50	45.80	0	1.00	N
Exterior Perception	14.78	14.98	3	0.83	M
Interior Perception	16.33	12.18	3	0.63	Y
Comm. House Problem	17.24	19.07	4	0.86	M

(table 8.7 concluded)

Gov't Involvement	47.00	50.00	0	1.00	N
Best Program	16.95	28.26	4	0.42	Y
Biggest Concern	14.29	21.64	4	0.61	Y

Source: Questionnaire 1991

Of the 49 variables, 11 show a covariance between -0.65 and +0.65, indicating a difference between Canoe Lake Reserve and Jans Bay in regards to these 12 variables (Table 8.8). An additional 7 variables have a covariance of +0.83 or less (designated by 'M') indicating less but also some difference (Table 8.7).

TABLE 8.8

Product-Moment Correlation, Canoe Lake Reserve and Jans Bay
Variables with Covariance's Between -0.65 and +0.65

Variable	Covariance (r)
Interior repairs	-0.39
Years built	0.48
Mortgage/rent cost	-0.20
Heat cost	-0.21
Electrical cost	-0.41
Lifespan you think	0.56
Best way get repairs	-0.65
Who do you think repair	-0.54
Interior perception	0.63
Best program	0.42
Biggest concern	0.61

Source: Questionnaire 1991

Mortgage/rent cost is the variable with the covariance closest to 0.0 at -0.20. Canoe Lake Reserve dwellers pay no rent and have no mortgages, and only those working pay utilities, while all Jans Bay residents must make monthly rent/mortgage and utility payments. The interior repairs variable with a covariance of -0.39 is a strong indicator of differences in housing condition and upkeep. The lifespan

variable with a covariance of 0.56 shows a difference in attitude between Canoe Lake Reserve and Jans Bay in the length of time they feel their house will be appropriate for living in. Most Jans Bay residents felt that their home would be suitable for at least another twenty years while Canoe Lake Reserve residents perception of the lifespan of their house was much shorter. The 'who do you think repair' variable, with a covariance of -0.54 also shows a difference between the two communities in regards to their perception of who they feel should repair their house. Almost all Canoe Lake Reserve residents felt that it was the responsibility of the government to maintain their house, while the majority of Jans Bay residents felt it was up to themselves to maintain their home, possibly with some government support.

8.6 STUDENT'S t TEST

Table 8.9 depicts the results of Student's t test at the 0.05 significance level for Canoe Lake Reserve and Jans Bay. Student's t test tests the difference between two samples. The denotation 'A' accepts the null hypothesis while the denotation 'R' rejects the null hypothesis and accepts the alternate hypothesis.

TABLE 8.9

t test of Variables from Canoe Lake Reserve and Jans Bay 1991

Variable	Mean X	Mean Y	DofF	Cal.t	Crit.t	R/A
House Type	33.33	33.33	3	0.00	2.35	A
Exterior Condition	20.00	20.02	6	1.85-03	1.83	A
Exterior Repairs	33.30	33.33	3	4.04-03	2.35	R
Interior Condition	20.00	20.00	7	0.00	1.89	A
Interior Repairs	33.33	33.36	3	5.9-03	2.35	R
Basement Type	33.33	33.33	3	0.00	2.35	A
# Bedrooms	23.58	20.00	7	0.15	1.89	A
Years Built	16.65	16.66	7	1.50-03	1.89	R
Ethnicity	33.33	33.33	3	0.00	2.35	A
Occupation	33.33	33.33	3	0.00	2.35	A
Monthly Income	14.27	14.30	11	3.42	1.80	R
Income Source	16.65	16.66	9	9.84	1.83	R
# People In House	7.69	7.69	23	2.03	1.71	R
Prefer Own Or Rent	50.00	50.00	1	0.00	6.31	A
Heat Type	19.98	20.00	7	1.59	1.89	A
Water Source	50.00	50.00	1	0.00	6.31	A
Toilet Type	33.33	33.33	3	0.00	2.35	A
Mortgage/Rent Cost	16.66	16.67	9	0.00	1.83	A
Heat Cost	16.66	16.66	9	0.00	1.83	A
Power Cost	24.97	24.97	5	9.02	2.01	R
Sewer Cost	50.00	50.00	2	0.00	2.92	A
Property Taxes	50.00	50.00	1	0.00	6.31	A
Adequate Living In	50.00	50.00	1	0.00	6.31	A
Worked Construction	50.00	22.8	1	1.00	6.31	A
Who/How Built House	16.66	16.66	8	0.00	1.86	A
Owner Help Build	50.00	50.00	1	0.00	6.31	A
How Maintain House	24.97	25.02	5	3.83	2.01	R
Value of House	12.48	12.50	12	9.41	1.78	R
Cost Repair 5 Years	16.66	16.68	9	1.03	1.83	A
Who Fix	24.97	25.02	5	2.12	2.01	R
Lifespan You Think	25.00	25.00	4	0.00	2.13	A
Can You Repair Some	50.00	50.00	1	0.00	6.31	A
Best Way Get Repair	25.00	24.97	5	1.62	2.01	A
Prefer Own/Rent	50.00	50.00	1	0.00	6.31	A
Who Should Fix	33.33	33.33	3	0.00	2.35	A
Roof Problems	50.00	50.00	1	0.00	6.31	A
Floor Problems	50.00	50.00	1	0.00	6.31	A
Door/Window Problem	50.00	50.00	1	0.00	6.31	A
Wall Problems	50.00	50.00	1	0.00	6.31	A
Heating Problems	50.00	50.00	1	0.00	6.31	A
Plumbing Problems	50.00	50.00	1	0.00	6.31	A
Wiring Problems	50.00	50.00	1	0.00	6.31	A
Basement Problems	50.00	50.00	1	0.00	6.31	A
Exterior Perception	20.00	19.98	7	1.90-03	1.89	R
Interior Perception	20.00	20.00	7	0.00	1.89	A
Community House Probl	16.66	16.66	9	0.00	1.83	A
Gov't Involvement	50.00	50.00	1	0.00	6.31	A
Best House Program	16.68	16.68	8	1.29-07	1.86	A

(table 8.9 concluded)

Biggest Concern	16.66	16.68	8	1.43-03	1.86	A
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Source: Questionnaire 1991

Eleven of the 49 variables show a significant difference at the 0.05 significance level for the t test. They are as follows:

- 1) Exterior Repairs
- 2) Interior Condition
- 3) Years Built
- 4) Monthly Income
- 5) Income Source
- 6) Number of People in House
- 7) Power Cost
- 8) How Maintain House
- 9) Value of House
- 10) Who Fix
- 11) Exterior Perception

Exterior repairs and interior condition are directly linked to maintenance practices and maintenance programs. The years built variable shows there are differences in the age of housing between Canoe Lake Reserve and Jans Bay, while the income variables show differences in incomes, hence funds for repairs. The value of house variable is important, because most reserve residents did not put a dollar value on their home, while over half of Jans Bay residents did. Exterior perception is also important - most Jans Bay residents felt that the exterior of their house was in fair to good condition, while Canoe Lake Reserve residents had less favourable attitudes towards their home's exterior. Also, the 'how maintain house' and 'who fix' variables show differences that are directly linked to maintenance programs - different programs for different locales.

8.7 RESULTS OF INDEX OF DISSIMILIARTY (1991 MICRO STUDY)

Following are the results of the index of dissimilarity for the 1991 micro study. The results show the areas of differences between Canoe Lake Reserve and the Metis community of Jans Bay. The equation for the Index of Dissimilarity is as follows:

$$ID_{xy} = \frac{\text{The Sum Of } (X_i - Y_i)}{2}$$

Table 8.10

Index of Dissimilarity Comparing Canoe Lake Reserve with Jans Bay, 1991	
Variable	I.D. (% difference)
1. Type of House	4.2
2. Exterior Condition	22.7
3. Exterior Repairs	21.6
4. Interior Condition	17.8
5. Interior Repairs	11.7
6. Basement Type	2.3
7. # Bedrooms	24.4
8. Years Built	40.1
9. Ethnicity	4.5
10. Occupation	6.1
11. Monthly Income	21.6
12. Income Source	29.6
13. # People Living in House	25.8
14. Prefer to Own or Rent	36.7
15. Type of Heat	20.8
16. Water Source	1.2
17. Toilet Type	1.4
18. Mortgage/Rent Cost	49.3
19. Heat Cost	81.6
20. Power Cost	72.2
21. Sewer Cost	72.7
22. Monthly Land Taxes	4.2
23. Adequate For Living In	8.3
24. You Worked Construction Before	7.2
25. Who/How House Built	50.0
26. Owner Involved in Construction	5.6
27. How House Maintained	57.6
28. Value of House if Sold	35.2
29. Cost of Repairs Past 5 Years	17.9
30. Who Fix	27.2
31. Lifespan of House	32.2
32. Can You Do Some Repairs	1.1
33. Best Way Get Repairs Done	56.1
34. Prefer to Own or Rent a House	34.5

(table 8.10 concluded)

35. Who Do You Think Should Fix	72.7
36. Roof Problems	18.1
37. Floor Problems	20.0
38. Wall Problems	18.5
39. Heating Problems	0.3
40. Plumbing Problems	2.3
41. Wiring Problems	3.0
42. Basement Problems	2.7
43. Exterior Perception	15.6
44. Interior Perception	25.6
45. Housing Problems in Community	22.0
46. Government Involvement	3.0
47. Best Program	63.7
48. Biggest Concern	33.6

Source: Questionnaire 1991

The Index of Dissimilarity shows ten variables with ratings greater than 40 (Table 8.11) and an additional five variables with ratings greater than 30. If the value is set at 20, twenty-six variables have ratings that indicate at least moderate differences in housing between Canoe Lake Reserve and Jans Bay.

Table 8.11

Index of Dissimilarity (Values >40) Jans Bay versus Canoe Lake Reserve	
Variable	Index of Dissimilarity
Years Built	40.1
Mortgage/Rent Cost	49.3
Heat Cost	81.6
Power Cost	72.2
Sewer Cost	72.2
Who/How House Built	50.0
How House Maintained	57.6
Best Way Get Repairs Done	56.1
Who Do You Think Should Fix	72.7
Best Program	63.7

Source: Questionnaire 1991

Of the ten variables with I.D. values greater than 40, only one (year built) is physically related to housing

conditions. The other nine variables indicate major differences in mortgage/rent costs, utility costs, and programs to build and maintain housing. This can be directly linked to program differences on and off-reserve.

On Canoe Lake Reserve, utilities are paid for by the band if the household is on social assistance, of which 75% to 80% are (Canoe Lake Reserve, p.c., October 1991). Off-reserve households must pay their own utilities even if on social assistance, hence less money for maintenance purposes.

The 'years built' variable shows quite a large I.D. difference of 40.1, which is a strong indicator of dwelling conditions due to rapid deterioration of newly constructed houses. Upon close scrutiny it can be seen that housing on Canoe Lake Reserve is newer than that of Jans Bay (Table 8.6 and Table 8.12). Again this can be directly related to a difference in programs, especially with the implementation of Bill C-31 in 1985, which greatly increased the demand for housing from newly enfranchised Aboriginal women and their offspring. Since the mid 1980's, housing starts on reserves increased substantially to meet this new demand. Table 8.12 confirms the difference in "new" housing between the two communities.

Of the ten new units built at Jans Bay between 1986 and 1991, three were brought in as CMHC rental units in 1988 from the Calgary Olympics and seven were constructed in 1991 as CMHC rental units. No privately owned mortgaged houses have been built in Jans Bay from 1980 to 1991, except for one unmortgaged house of log construction in 1982 (Jans Bay

Administrator, p.c., October 1991).

Table 8.12

Age Difference of Housing Between Canoe Lake Reserve and Jans Bay					
Location	Total Occ. Units	Before 1970	1971- 1980	1981- 1985	1986- 1991
Canoe Lake	110	20	35	20	35
Jans Bay	35	0	24	1	10

Source: Census Canada 1991

The 'best program' variable shows an I.D. value of 63.7, indicating a large difference in housing program preference between Canoe Lake Reserve and Jans Bay. Again, this is directly related to the differences between housing programs. The 16 variables with indexes between 20 and 40 include exterior condition (22.7), exterior repairs (21.6), monthly income (21.6), number of people living in house (25.8), house value (35.2), lifespan (32.3) and housing problems in the community (22.0). All these variables, except house value are linked to housing condition. On Canoe Lake Reserve, a dwelling's only value is social - they are band owned and cannot be sold by individuals. They represent a 'sense of place' not ownership. At Jans Bay, approximately 50% of the dwellings are privately owned and could be sold at any time. This would rarely occur because most mortgages are higher than the market value of the property. There was some confusion by respondents at Jans Bay when asked whether they owned or rented their house. In fact, some were unsure. In further interviews with town administrators, it was revealed that almost all mortgaged houses in town were in mortgage arrears,

therefore occupants were not fully aware of the status of their home - many had not made mortgage payments to SHC for years, or only token payments periodically. They were unsure if they themselves or SHC owned their house. The town administrator admitted that he had not made any payment himself for many years (Jans Bay Administrator, p.c., October 1991).

This seriously affects the town's property tax base. Most of SHC's original mortgages had SHC responsible for the payment of property taxes. But once the original mortgage expired and was then renewed by SHC, the new mortgage contracts excluded the payment of property taxes by SHC. Many mortgages came due in the 1980's, creating a serious depletion of tax revenues for northern communities (SHC Prince Albert, p.c., February 1991).

Of the 48 variables, 22 had dissimilarity indexes of less than 20, showing insignificant differences in these variables. What they do show is the similarities in dwellings between Canoe Lake Reserve and Jans Bay. These include house type, ethnicity of occupants, occupation, sanitation facilities, construction experience, housing problems and their views on government involvement in the housing industry. Overall, housing in the north is similar in many respects but also varies because of the two separate funding agents and delivery agents (provincial government and federal government).

8.8 RESULTS OF MACRO/MICRO STUDIES

The index of dissimilarity for 1986 Census data shows no

variables with ratings greater than 20. Although from Table 8.12, it can be seen that the 'year built' variable shows a major decline in housing starts after 1981 for CD #18 unorganized but steady growth for CD #18 reserves. Differences in housing quality between reserves and non-reserve communities is poorly reflected in 1981 and 1986 Census data. Since the mid 1980's, a surge in new construction on reserves took place, in part due to Bill C-31. In sharp contrast, provincial government cutbacks for non-reserve housing occurred. The net result is that the quality of housing has begun to change between reserves and non-reserve communities. This is reflected in the 1991 micro study.

Federal expenditures, including government services and public infrastructure have increased more on reserves in northern Saskatchewan than in the off-reserve Metis communities. This has helped reserves to forge ahead of non-reserve communities for infrastructure and capital expenditures, often times making reserves more attractive for people to remain, or Metis people who married Status Indians to relocate to reserves. This is certainly the case at Jans Bay and Canoe Lake Reserve where the population of Jans Bay has increased 17% during from 1986 to 1991 while the number of residents at Canoe Lake Reserve has grown by 32%. Overall, CD #18 unorganized has seen a decline of 13.8% in its population from 1986 to 1991 (Census Canada 1986 and 1991).

Because of marriages between Jans Bay residents and Canoe Lake Reserve residents, many people have recently chosen to live on the reserve because of its better housing conditions,

the availability of new housing on the reserve and greater job opportunities on the reserve working for the band. Larger government infrastructure payments to the reserve translates into more job opportunities on the reserves. As a rule, reserves do not hire non-reserve residents for full time work. Many job opportunities require residency on the reserve as a prerequisite for employment (Jans Bay Administrator, p.c. October 1991). The ability to pay for housing is related to employment opportunities. In most small northern Saskatchewan communities, there are few jobs.

The number of occupied private dwellings in CD #18 unorganized has risen marginally at 2.1% in the period from 1981 to 1986. Of these, 1855 (74%) are owner occupied and 655 (26%) are rental units. On-reserve dwellings have increased from 1726 in 1981 to 1829 in 1986, a 5.6% increase (Table 8.13). This is a reflection of the federal government commitment for housing on Canadian reserves (INAC, p.c., April 1992).

TABLE 8.13

CD #18 Occupied Private Dwellings, 1981 and 1986			
Location	1981	1986	% increase
Reserve	1726	1829	5.6
Unorganized	2535	2590	2.1
Incorporated	1430	1490	4.2
Total	5691	5900	—

Source: Census Canada 1981 and 1986

8.9 INTERVIEWS

In March 1991, SHC was responsible for the administration

of 1418 single family dwellings in CD #18. The only maintenance program available to occupants was the federal Emergency Repair Program, intended for emergency repair of such items as heating systems, electrical and plumbing up to \$2500. If the homeowner owed any mortgage money to SHC or CMHC they were ineligible for the Rural Residential Rehabilitation Program. Also, if they were already living in a SHC house and applied for a CMHC rental they would be put on the bottom of the list, in effect a refusal. As a consequence, extremely limited financial resources were available to CD #18 homeowners.

In contrast, CD #18 reserve housing with approximately 1500 units, had funding under the Emergency Repair Program, RRAP, INAC new housing programs and a variety of administration grants and work programs for reserve housing from the federal government. Many owners of SHC dwellings owed in excess of \$100,000 for dwellings that were generally worth much less than half that value. Most of this was caused by an accumulation of interest on serious mortgage arrears. In 1979, approximately 85% of CD #18 non-reserve SHC mortgaged housing was in mortgage arrears (SHC, p.c., February 1991). What this shows is the misfit between housing needs and housing policy. In 1984, over 80% were still in arrears. Current provincial government subsidies and programs do not equal those of the federal government. Consequently, sharp differences in housing exists between reserve and non-reserve communities in northern Saskatchewan and between Jans Bay and the neighbouring reserve of Canoe Lake.

From 1978 to 1983 there was no formal process in place for the collection of mortgages in arrears. In 1984, SHC began a more aggressive collection process. In 1983, 95% of SHC accounts in southern Saskatchewan were making some sort of payment, while in the north the figure was only 40%. Ninety per cent of arrears mortgage money owed to SHC was from northern Saskatchewan (SHC, p.c., March 1991).

SHC has no maintenance budget for owned or rental units. Only emergency repairs are done through the Emergency Repair Program. According to one employee of SHC in Prince Albert "housing in the north is going to hell in a hen basket" (SHC, p.c., March 1991). With the termination of RRAP in April 1993 by the federal government, then its reinstatement under the new Liberal government for a limited two year program providing \$100 million for low-income homeowners across Canada to repair their homes, shows the federal governments reluctance to enter into long term commitments to subsidize social housing units and low-income homeowners.

In northern Saskatchewan, SHC has approximately 250 rental units with no maintenance budget. When tenants are in arrears on mortgage payments and turn their house back to SHC, SHC will sometimes repair it, depending upon the circumstances or sell it, as is, to the highest bidder. SHC has no policy for this type of situation and action is taken as the housing manager feels is appropriate for the individual case (SHC, p.c., March 1991).

SHC often pays the insurance premium on their mortgaged units, depending upon the original mortgage agreement. If the

homeowner has at least been attempting to make mortgage payments, SHC will generally pay their insurance. (SHC, p.c., March 1991).

If the original agreement between SHC and a homeowner included payments to SHC based on principle, interest and taxes, SHC has the responsibility to pay the property taxes to the town until the original mortgage is amortized. Once amortized (e.g. 15 years) SHC pays no more property taxes, even if the mortgage is not paid in full. The town is then responsible for property tax collection from the homeowner. Therefore, as mortgages come due, northern communities are losing substantial tax base revenue because the majority of homeowners rarely pay their property taxes (SHC, p.c., March 1991: Jans Bay administrator, p.c., October 1991). For example, at Jans Bay in 1990, only one homeowner who was responsible for their own property taxes paid their property taxes to the town. All other property tax revenues come from government rental units and SHC mortgaged units whose original mortgage is not yet amortized. Reserves have no property tax base.

8.10 DISCUSSION

During the 1980's, Canoe Lake Reserve housing has improved more than housing at Jans Bay. This development reverses the situation of the 1970's when reserve housing in northern Saskatchewan was in worse condition than non-reserve housing. Supporting evidence is provided by the indicator ratings. In 1991, the figure for Jans Bay was 3.7 and 2.8 for

Canoe Lake Reserve. This difference indicates higher dwelling deficiencies at Jans Bay.

The primary reason for this switch is due to variation in public housing support. Provincial government support for low income housing in Saskatchewan declined in the 1980's, while financial support for reserve housing from the federal government increased. Not surprisingly, age of dwellings is a major indicator of housing condition. Results of the t test and the index of dissimilarity support this relationship at Canoe Lake Reserve and Jans Bay. As the age of the housing stock increases, its condition declines.

Chapter Nine presents a general discussion of northern Saskatchewan housing, dependency and our governments' future commitments to social housing.

CHAPTER 9

CONCLUSIONS

9.1 RESTATEMENT OF OBJECTIVES

The purpose of this thesis was to test the hypothesis that Census Division #18 reserve housing was in better condition than Census Division #18 off-reserve community housing in the 1980's. This was measured by using Census Canada data and a case study of Canoe Lake Reserve and the adjoining Metis community of Jans Bay. The purpose was to determine if differences existed, identify these differences and determine why the differences exist.

9.2 SUMMARY OF RESULTS

The results of the analysis indicate that CD #18 housing in the 1980's on reserves was in better condition than housing in off-reserve Metis communities. The main problem for all northern Saskatchewan housing is its rapid deterioration rate, largely due to a lack of general maintenance practices and funds. This problem is more prominent in off-reserve Metis communities. The reason for this is a difference in funding sources. The federal government has been consistently putting money into reserve housing in the 1980's, while the Saskatchewan provincial government has cut back significantly

on its social housing programs. The end result being a rapid deterioration of northern Metis housing.

In the north, good quality housing is equated with house age. While northern Saskatchewan reserves have seen a surge in new house construction since the mid 1980's, off-reserve new housing has been very limited. This is largely due to severe cutbacks in the Rural and Native Housing Program. Only limited provincial government funds have been available for maintenance purposes.

The indicator ratings of the 1991 case study indicate Canoe Lake Reserve housing to be in better physical condition and less crowded than housing at Jans Bay. This is a contrast to the 1981 Census Canada data that show the average indicator rating of Census Division #18 reserves to be at 4.81 compared to 3.37 for Census Division #18 unorganized. The 1980's saw a major improvement in reserve housing and a decline in off-reserve community housing. This can be directly related to two different levels of government commitment and funding to social housing.

The results of Student's t test and product-moment correlation indicate the major differences between reserve and off-reserve housing. The major areas of difference were interior condition, age, utility costs, and who is responsible for repairs. Most reserve residents felt that it was the responsibility of the federal government to supply and repair their house, while non-reserve residents felt it was a combination of government and self. This attitude by reserve residents upon maintenance responsibility and the provision of

new housing places a lot of weight on the federal government to supply reserves with decent housing. Treaty Indians are promoting the idea that housing entitlements stem from Treaty Rights and are putting pressure on the federal government. Metis people do not have this power.

The Rural and Native Housing home ownership program has largely failed in northern Saskatchewan. One major reason is the low incomes of most northerners. They do not have sufficient income to properly maintain expensive modern housing. The long term affect is a short life span for newly constructed housing. With extremely limited government resources going into maintenance, deterioration is advancing at a rapid rate. The inability of Metis northerners to replace/maintain their housing is a burgeoning problem. In short, building new houses is a stop gap measure which does not solve the long term problem of housing in the north.

9.3 CONCLUSION

Rapid deterioration of housing in northern Saskatchewan communities is a major problem both on and off-reserve. Improper maintenance practices, lack of funds, age, overuse and lifestyle appear to be the major culprits in the condition of our northern housing stock. In the past, money for maintenance flowed readily from government coffers and there was a general feeling that governments were a bottomless pit of financial resources (Jans Bay, p.c., October 1991). In the 1970's, people on reserves felt that once their house was worn out, they would receive a new unit or have extensive

renovations done to the existing one. At that time, the average life expectancy of a new reserve house was less than ten years. Today this has changed. Bands receive block financing and are responsible for house construction and maintenance. This policy change has resulted in a more effective housing program on reserves, resulting in a decline in the rate of housing deterioration (CMHC, p.c., January 1991). This is not the case in the Metis communities in CD #18. Rapid housing deterioration is still a major problem. With the average cost of a northern house in 1991 between \$80,000 and \$115,000, investment by government has grown substantially (SHC 1974 Housing Costs; CMHC, p.c., January 1991).

With the 1991 total provincial operating budget for SHC at \$7.78 million, little money remains for rehabilitation of existing housing or new housing (SHC, p.c., February 1991). Most funds spent directly on maintenance are on a 75/25 per cent share with the federal government. Only \$278,000 in 1991 was earmarked for the rehabilitation of existing housing, \$795,000 for the rural housing program and \$2.9 million for public housing. Homeowners who are receiving mortgage subsidies in the form of low interest or direct mortgage subsidies from SHC are ineligible for all rehabilitation programs, except the Emergency Repair Program.

Differences between CD #18 reserve and non-reserve housing was less prominent in the 1970's and early 1980's than it was in the mid and late 1980's. Provincial government cutbacks have severely restricted the upkeep of northern Metis housing stocks while at the same time, the federal government

has increased funding for Canadian reserve housing, especially C-31 housing. The Indian-On-Reserve housing program has seen the construction of hundreds of new units on Saskatchewan reserves in the past decade while provincial low-income earners have witnessed a serious cutback in funding for the Rural and Native Housing Program. SHC no longer builds new housing in the north. All new construction is done by CMHC, largely as social housing rental units. There is no adequate process in place to maintain off-reserve low income housing and the statistics show it.

Most northern residents cannot afford proper housing. With limited government programs to provide housing assistance, these people will continue to reside in substandard housing.

Maintenance of the existing social housing stock is necessary because occupants, whether owners in name, cannot afford to keep their houses in repair. Yet, because of the financial situation of governments, new housing maintenance programs are unlikely. Without public funding for repairs and renovations, northern housing will continue to deteriorate rapidly.

The World Bank sums up this situation as: "Many people have remained outside the entire development effort, able to neither to contribute to it, nor to benefit fairly from it" (World Bank 1980:10). Such is the case of many residents of Saskatchewan's north. They have become very dependent, both socially and economically upon government support to maintain a basic standard living of living.

Overall, the variables examined in this thesis are similar to those of developing countries. Northern Saskatchewan Native housing conditions are improving slowly but inadequate housing conditions will probably persist until their economic position improves.

Housing policy tends to be vague, confused and in a continual state of flux. The early 1980's saw a shift from government building new housing to conservation and the improvement of existing stock. But the question still remains as to what level of government should do what in housing. Different locales have different problems in both nature and degree. Should the federal government be responsible for all low-income housing in Canada, or should the provincial governments shoulder the responsibility? In northern Saskatchewan, different levels of government involvement have created differences in housing quality in the same locale.

In northern Saskatchewan, the deterioration cycle of low-income housing has not been broken. Unless the underlying societal causes are also treated, housing deterioration will likely continue. It is one matter to build social housing but quite another matter to maintain it and design viable communities.

It is hoped that this thesis has shed some light on the problems of housing in the north. Through a better knowledge of the inter-relationships between government, housing and social and economic factors, we can gain a better insight into the problems of housing in the north.

APPENDIX A
QUESTIONNAIRE

INTERVIEWER'S PERCEPTIONS

1. Date _____
2. Community Name _____
3. Address/Location of house _____
4. Is this house occupied: _____
unoccupied: _____ Why? _____
5. Type of structure: a) Frame _____
b) Mobile home _____
c) Log _____
6. Exterior condition: a) Very good _____
b) Good _____
c) Fair _____
d) Poor _____
7. Exterior repairs a) Needs minor repairs _____
b) Needs minor/one major repair _____
c) Needs more than one major repair _____
Condition: (Very good; good; fair; poor)
a) Shingles _____
b) Soffit/facia _____
c) Siding _____
d) Paint _____
e) Windows/doors/glass _____
8. Interior condition: a) Very good _____
b) Good _____
c) Fair _____
d) Poor _____
9. Interior repairs a) Needs minor repairs _____
b) Needs minor/one major repair _____
c) Needs more than one major repair _____
Condition: (Very good; good; fair; poor)
a) Walls and ceiling _____
b) Floor coverings _____
c) Doors and trim _____
d) Paint _____
e) Cabinets/countertops _____
f) Mechanical _____
10. Basement type: a) Crawl space _____
b) Full basement _____
11. Number of bedrooms: _____ Bathrooms: _____
12. Year built _____

SOCIO-ECONOMIC DATA

1. Ethnic origin of heads: a) Status (man) _____ (woman) _____
b) Non-status (man) _____ (woman) _____
c) Metis (man) _____ (woman) _____
d) Other (man) _____ (woman) _____
2. Occupation: a) Man _____
b) Woman _____
3. Education level of heads: a) man _____
b) woman _____
4. Yearly household income: _____
5. Income source: a) wages _____
b) U.I.C. _____
c) Self employment _____
d) Social assistance _____
e) Traditional _____
6. No. of persons living in house: a) Adults _____
b) Children _____
7. How long have you lived in this house? _____
8. Do you own or rent this house? a) Own _____
b) Rent _____

HOUSING CHARACTERISTICS

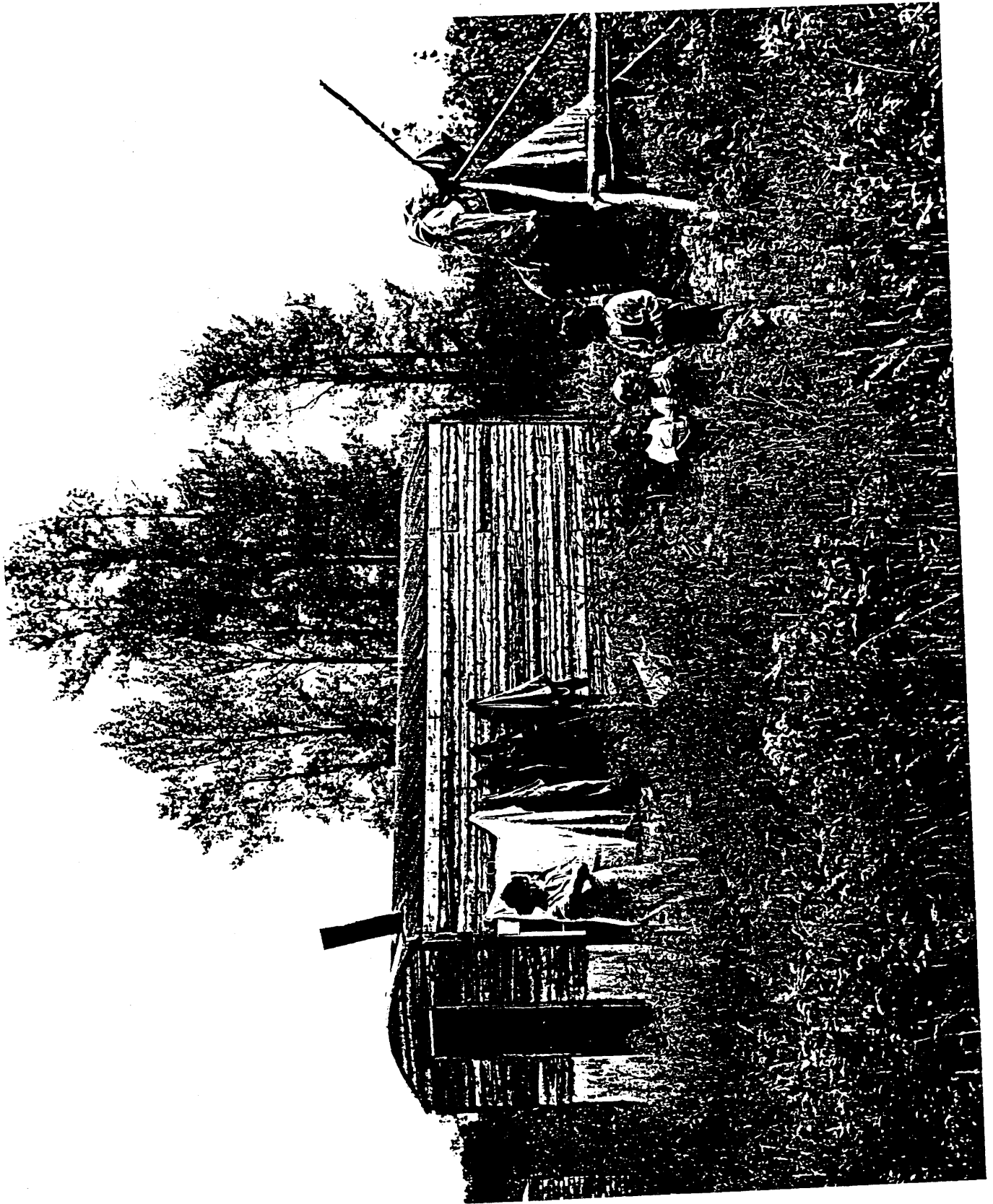
9. Heat source a) oil _____
b) wood _____
c) electric _____
d) space heater _____
10. Water source a) village _____
b) other _____
11. Toilet type a) toilet _____
b) other _____
12. What are your costs for:
a) monthly mortgage/rent _____
b) monthly heating _____
c) monthly power _____
d) monthly sewer/water _____
e) yearly taxes _____
13. Do you consider this house adequate for living in? Yes _____
No _____
14. Did you or anyone living here ever work in housing construction? _____
15. How was this house built: a) Self _____
b) Housing program (specify) _____
16. Owner help build? a) Yes _____
b) No _____
17. How is/was this house maintained?
a) Self _____
b) Housing program _____
c) Other _____
d) Don't know _____
18. If this house was sold, how much do you think it would sell for? _____
19. Cost of repairs last five years? _____

20. Who repaired your house in the past five years? _____
21. Would repairs/additions make this house good to live in for another: a) 5 years _____
b) 10 years _____
c) 20 years or more _____
22. Can you do some house repairs yourself? a) Yes _____
b) No _____
23. What do you think is the best way to get repairs done on your house? _____
24. Do you prefer to own or rent? a) Own _____
b) Rent _____
25. Who do you think should repair your house? _____
26. Which parts of the house do you have trouble with?
a) Roof _____
b) Floors _____
c) Doors and windows _____
d) Walls _____
e) Heating _____
f) Wiring _____
g) Plumbing _____
h) Basement _____
i) Other (specify) _____
27. What shape do you feel the outside of your house is in?
a) Very good _____
b) Good _____
c) Fair _____
d) Poor _____
e) Unfit _____
28. What shape do you feel the interior of your house is in?
a) Very good _____
b) Good _____
c) Fair _____
d) Poor _____
e) Unfit _____
29. What do you see as the major problems in housing in this community? _____
30. Do you think government should be involved in new housing and housing maintenance programs? _____
31. What housing programs do you think worked the best and the worst? _____

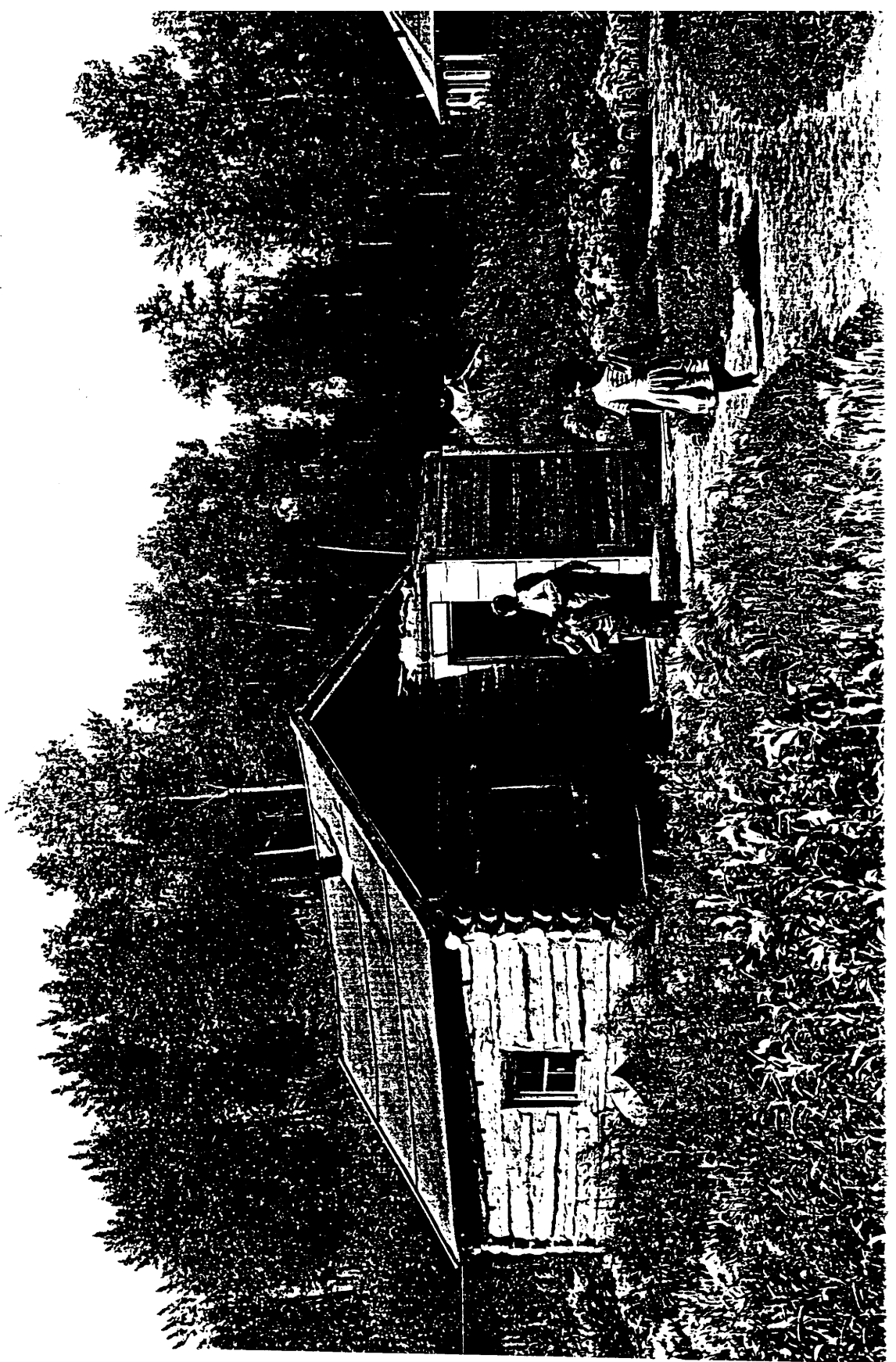
32. What are your two biggest concerns with the economic and social conditions of northern Saskatchewan?
a) _____
b) _____

APPENDIX B

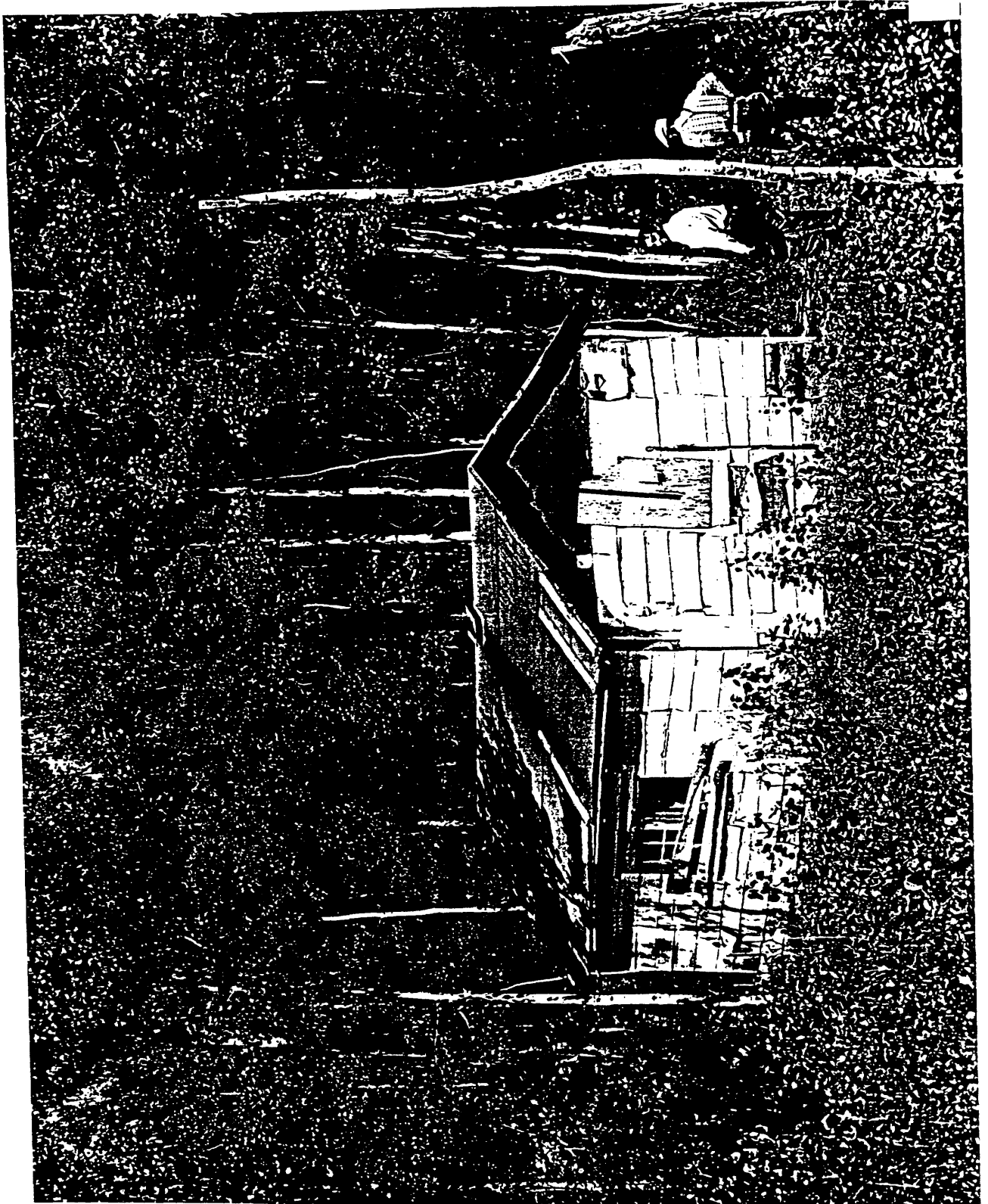
Photos of Northern Saskatchewan Housing 1960's.
Source: Saskatchewan Housing Corporation, Prince Albert



July 1961. Caboose, approximately 8' x 12' occupied by family of 6.



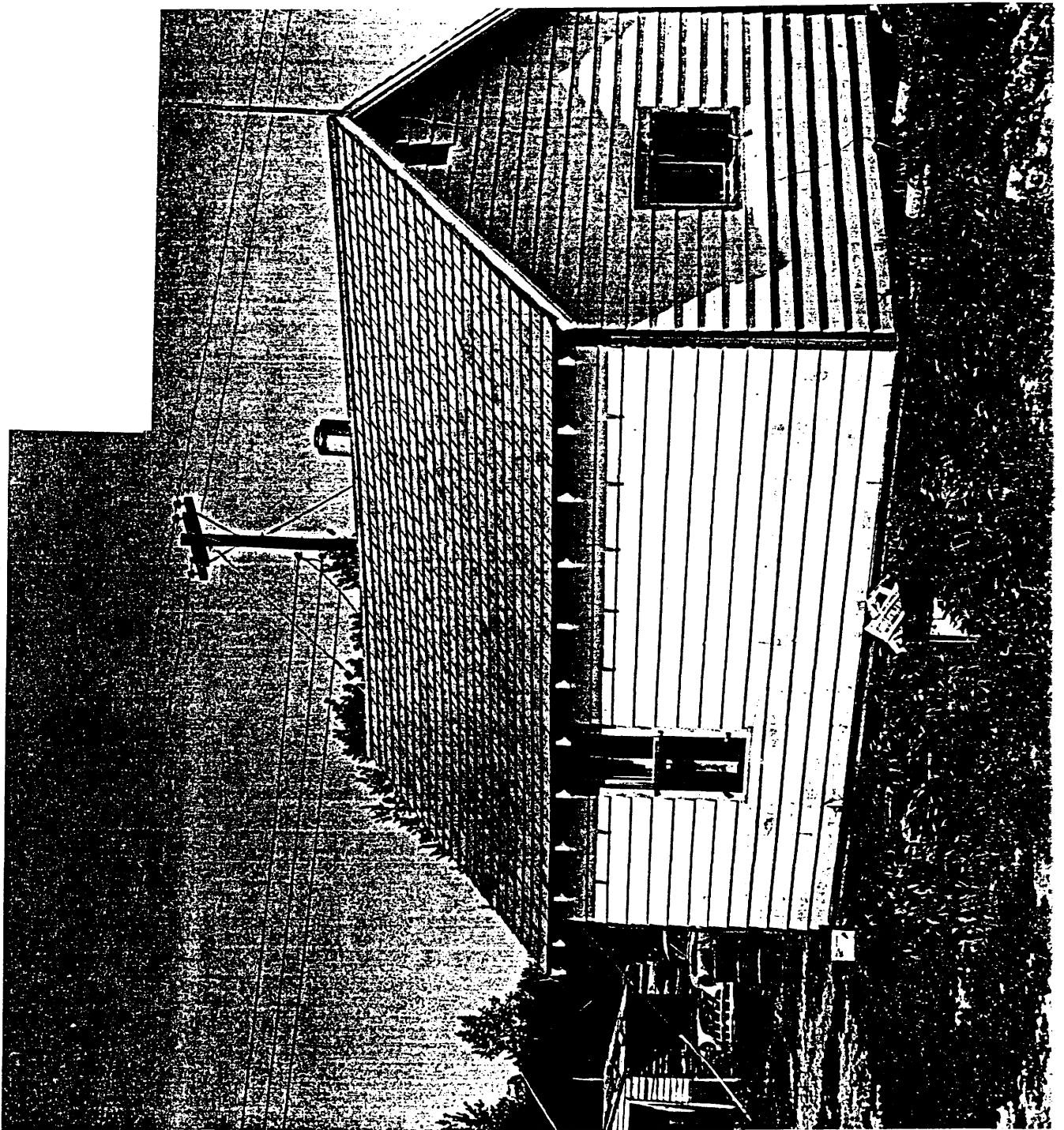
July 1961. Log cabin, approximately 12' x 16' occupied by family of 11.



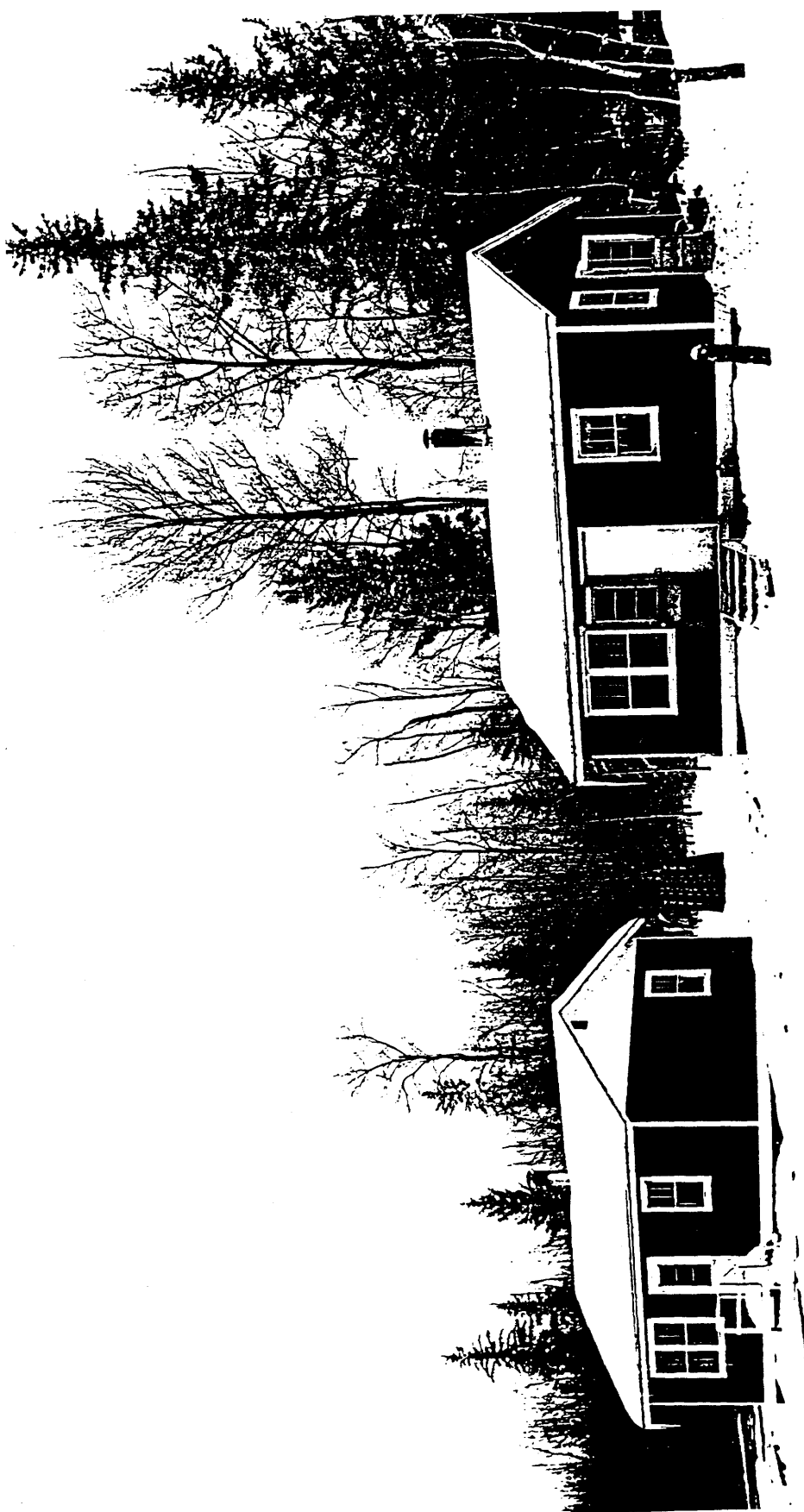
Buffalo Narrows, 1961. Typical log cabin. Covered with cardboard.



Turnor Lake, 1961. Native housing with summer expansion.



Buffalo Narrows, July 1961. Log cabin and modern home. Home was partly financed by Credit Union and completed in 1959.



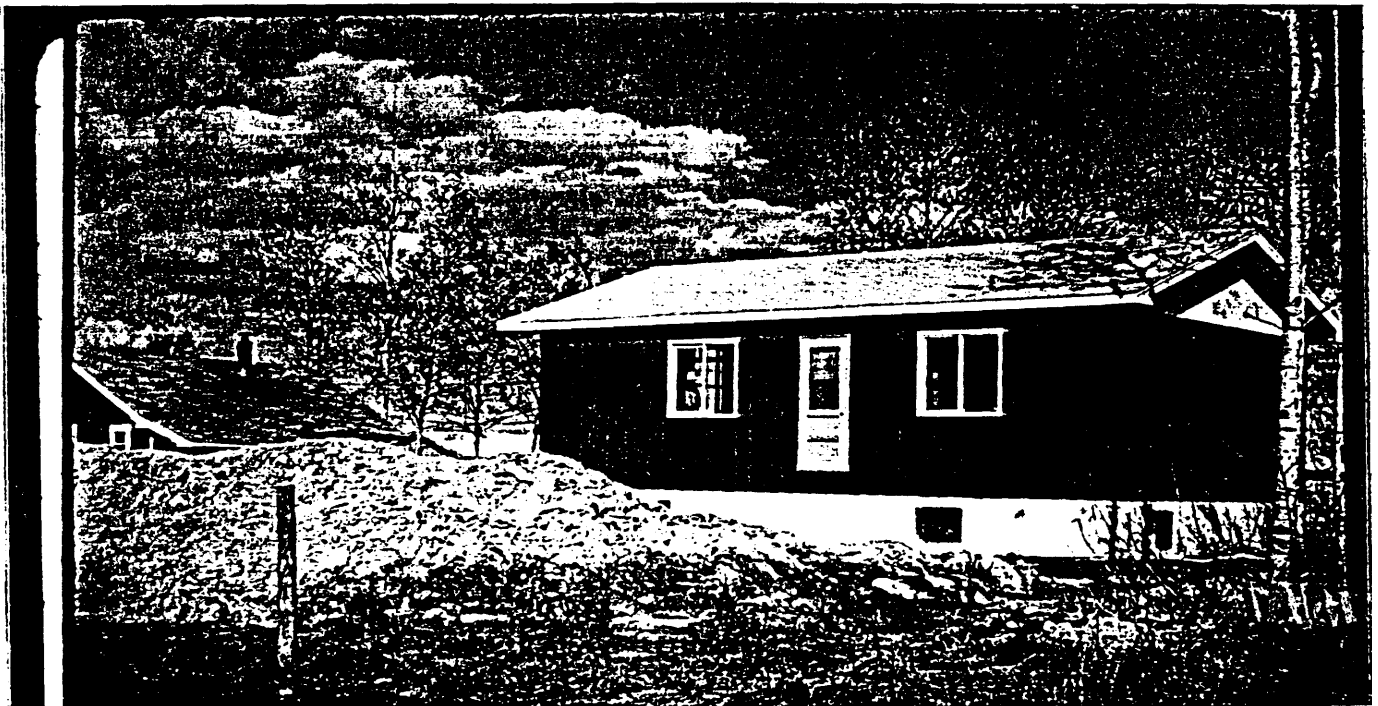
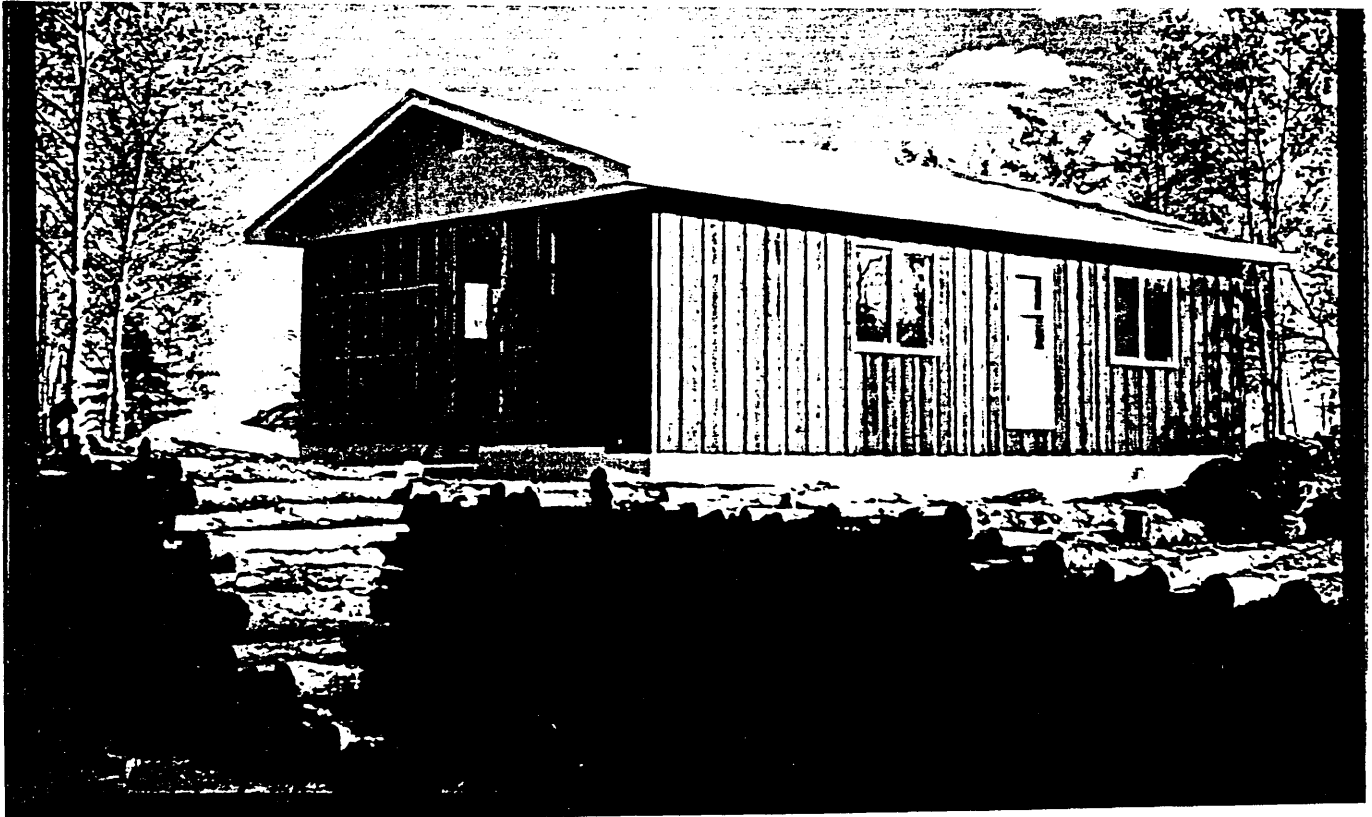
Pinehouse. First two houses built under DNR supervision.



Ile-a-la-crosse, 1966. Street of houses.



Turnor Lake, December 1967. Living accommodations of a family of 8.



Beauval, 1969. Prototype 3-bedroom house with plywood basement.

APPENDIX B *

CASE

VARIABLES, CANOE LAKE RESERVE : 1991

	1	2	1	2	1	1	3	5	1	1	4	4	6	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	4	2	2	
3	1	3	2	3	2	1	3	3	1	1	4	4	4	1	2	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	2
4	1	1	3	1	3	2	3	6	1	1	5	4	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	3
8	1	4	2	4	2	1	2	3	1	1	3	6	2	2	1	2	1	1	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1
10	1	1	3	1	3	2	3	6	1	1	5	4	10	2	1	1	1	1	3	2	1	1	1	1	1	1	1	2	1	1	1	1	3
11	1	3	2	3	2	1	3	4	1	1	5	4	8	2	3	1	1	1	1	1	1	1	1	1	2	2	2	1	4	1	1	1	1
12	1	2	1	3	1	1	3	5	1	2	4	1	6	2	2	1	1	1	1	2	1	1	1	1	1	1	1	2	1	1	3	2	4
13	1	3	2	1	1	1	3	4	1	1	5	6	8	2	3	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	
17	1	1	3	1	3	3	3	6	1	1	4	6	9	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	3
18	1	2	1	2	1	3	3	6	1	2	4	1	11	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	2	4	4	4	2
24	1	3	2	3	2	1	3	4	3	1	5	6	9	2	4	1	1	1	1	1	1	1	1	1	2	2	2	1	2	4	3	2	
25	1	2	3	2	1	1	3	5	1	1	4	4	6	2	2	1	1	1	1	1	1	1	1	1	1	2	1	1	2	4	1	2	
26	1	1	3	1	3	1	3	6	1	2	6	1	4	2	1	1	1	1	3	3	1	1	1	1	1	1	1	2	4	1	1	1	3
28	1	4	2	4	2	1	4	3	1	1	5	4	13	2	1	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	1	
31	1	3	2	3	2	1	2	3	1	1	2	4	1	2	1	1	1	1	1	1	1	1	1	1	1	2	2	2	4	1	1	1	1
34	1	3	2	2	1	1	4	3	1	2	5	1	8	2	2	1	1	1	3	3	1	1	1	1	1	2	1	1	2	4	2	1	1
35	1	1	3	1	3	1	3	6	1	1	4	4	7	2	1	1	1	1	1	1	1	1	1	1	1	2	1	2	4	1	1	1	3
37	1	2	1	2	1	1	3	6	3	1	4	4	6	2	1	1	1	1	1	3	1	1	1	1	2	1	2	4	1	1	1	2	
38	1	2	1	2	1	1	3	6	1	2	4	1	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	3
42	1	1	3	1	3	1	1	6	1	1	3	4	2	1	1	1	1	1	1	1	1	1	1	1	2	1	2	4	1	1	1	2	
43	1	1	3	1	3	1	3	6	1	1	4	4	7	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4	1	1	1	3
44	1	1	3	1	3	1	3	6	1	1	4	4	5	2	1	1	1	1	1	1	1	1	1	1	2	1	2	4	1	1	1	3	
45	1	1	3	1	1	1	3	6	1	1	5	4	8	2	1	1	1	1	1	1	1	1	1	2	1	1	2	4	1	1	1	2	
46	1	4	2	4	2	1	4	4	1	1	4	4	4	2	3	1	1	1	1	1	1	1	1	2	2	2	2	4	2	1	1	1	
47	1	2	3	2	3	1	3	5	1	2	4	1	3	2	2	1	1	1	1	3	1	1	1	1	1	2	2	1	4	1	1	1	2
48	1	2	1	2	1	1	3	5	1	2	4	1	6	2	2	1	1	1	1	4	3	1	1	1	2	2	2	4	1	1	1	2	
51	1	3	2	4	2	1	3	3	1	1	4	4	5	1	5	1	1	1	1	1	1	1	2	2	2	2	2	3	1	1	1	1	
52	3	3	1	3	2	1	3	4	3	1	3	4	2	1	3	2	2	1	1	1	1	1	1	2	6	2	1	1	1	1	1	1	
56	1	3	2	2	1	1	3	4	1	1	4	4	6	2	3	1	1	1	1	1	1	1	1	2	1	1	1	2	4	2	2	2	
57	1	3	2	3	2	1	4	3	1	1	5	4	9	2	5	1	1	1	1	1	1	1	1	2	1	1	1	1	4	1	4	4	
59	1	2	2	2	1	1	5	4	1	2	5	1	8	2	2	1	1	1	5	3	1	1	1	1	2	1	2	8	5	4	3	4	
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66	1	3	2	3	2	1	3	3	1	1	3	4	3	2	2	1	1	1	1	1	1	1	2	2	2	2	2	4	2	1	1	1	
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75	1	2	1	2	1	1	3	5	1	2	5	1	5	2	2	1	1	1	4	3	1	1	1	2	1	2	2	1	1	1	2	2	
80	1	1	3	1	3	2	3	6	1	2	5	1	5	2	1	1	1	1	1	3	1	1	1	1	1	1	1	4	9	2	1	3	
81	1	1	3	1	3	1	3	6	1	1	4	4	8	2	1	1	1	1	1	1	1	1	1	1	1	1	2	4	1	1	1	2	
82	1	2	1	2	1	1	3	6	1	1	3	4	3	2	2	1	1	1	1	1	1	1	1	2	1	2	2	2	2	1	2	2	
85	1	3	2	3	2	1	2	3	1	1	1	4	1	2	4	1	1	1	1	1	1	1	2	2	1	2	4	1	1	1	1	1	
86	1	3	2	4	2	1	3	3	1	3	3	5	1	2	1	1	1	1	1	2	1	1	1	1	2	2	2	2	2	2	1	1	
87	1	2	3	2	1	1	3	5	1	1	3	4	3	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	2	2	
89	1	2	3	2	1	1	3	4	1	1	4	4	7	2	2	1	1	1	1	1	1	1	1	1	1	2	1	3	1	1	1	3	
90	1	1	3	1	3	2	5	6	1	1	5	4	11	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	3	
91	1	4	2	4	2	1	3	3	1	1	3	4	2	2	1	1	3	1	1	1	1	1	1	2	1	2	2	2	1	2	1	1	
93	1	2	1	2	1	1	3	5	1	1	3	4	6	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2	1	1	3	2	
94	1	3	2	3	2	1	3	4	1	2	4	1	3	2	2	1	1	1	3	3	1	1	1	2	2	2	1	2	4	3	2	2	
95	1	4	2	3	2	1	3	3	1	1	5	4	7	2	1	1	1	1	1	1	1	1	2	1	2	1	1	2	1	1	1	1	
97	1	4	2	4	2	1	3	3	1	1	4	4	4	2	1	1	3	1	1	1	1	1	2	1	2	2	2	2	1	1	3	3	
101	1	3	2	3	1	1	3	4	1	1	4	4	5	2	1	1	1	1	1	1	1	1	1	2	2	2	1	2	1	1	2	2	
104	1	2	3	2	1	2	5	6	1	1	3	4	3	2	1	1	1	1	1	1	1	1	1	1	2	2	4	1	1	1	3	3	
105	1	2	1	2	1	2	5	6	1	2	5	1	6	2	1	1	1	1	1	3	1	1	1	1	2	2	1	4	1	1	1	3	
106	1	3	2	3	2	1	3	3	1	1	4	4	6	2	2	1	1	1	1	1	1	1	1	2	2	1	1	3	1	1	1	1	
107	1	1	3	1	3	1	3	6	1	1	4	4	8	2	1	1	1	1	1	1	1	1	1	2	1	2	4	1	1	1	2	2	
111	1	3	2	3	2	1	2	3	1	1	3	6	2	2	1	1	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	
112	1	1	3	2	1	2	5	6	1	1	3	4	5	2	1	1	1	1	1	1	1	1	1	2	1	2	4	1	1	1	2	2	
114	1	4	2	2	3	1	2	4	1	1	4	4	8	2	2	1																	

CASE

VARIABLES, JANS BAY (NON-RESERVE) : 1991

200	1	3	2	3	2	3	3	3	1	1	7	4	3	2	5	1	1	4	4	2	2	1	1	2	4	2	3	1	4	1	2
201	1	4	2	3	2	1	3	3	1	1	7	4	6	2	1	2	3	4	4	2	2	1	1	1	4	1	4	1	1	1	2
202	1	1	3	1	3	1	3	4	1	2	7	1	6	2	2	1	1	4	3	3	2	1	1	1	4	2	3	1	6	3	3
203	1	3	1	3	2	1	3	4	1	1	7	4	9	2	1	1	1	4	4	3	2	1	2	1	4	1	4	2	1	1	2
204	1	3	2	4	2	3	3	4	1	1	7	4	8	1	1	1	1	4	4	3	2	1	1	1	4	2	4	1	1	1	3
205	1	3	2	4	2	1	3	4	1	1	7	4	4	2	2	1	1	4	4	2	2	1	2	2	4	2	4	1	1	1	2
206	1	2	3	2	3	1	3	3	1	1	4	4	5	1	5	1	1	4	4	2	2	1	1	2	4	2	2	1	1	1	3
207	1	3	2	3	1	3	3	3	1	1	3	4	13	2	2	1	1	4	5	3	2	1	2	1	4	1	2	1	2	4	3
208	1	3	1	3	2	3	3	3	1	2	5	1	7	2	2	1	1	4	4	3	2	1	1	2	4	2	2	1	1	1	3
209	1	1	3	2	3	1	3	4	1	1	4	4	8	2	1	1	1	4	4	3	2	1	1	1	4	2	3	1	6	3	3
211	1	3	2	4	2	1	3	4	1	1	3	4	2	2	5	1	1	4	4	3	2	1	1	2	4	2	2	1	4	4	3
212	1	1	3	2	3	3	3	6	1	1	4	4	5	1	2	1	1	6	4	3	2	1	1	2	5	2	2	1	1	1	3
213	1	2	1	2	1	1	3	4	1	1	3	4	5	1	2	1	1	4	4	2	2	1	1	2	4	2	3	1	1	1	2
214	1	2	1	2	1	1	3	4	1	1	4	4	9	1	1	1	1	4	4	3	2	1	1	1	4	1	3	1	1	4	3
215	1	3	2	3	1	1	3	4	1	1	5	4	10	1	1	1	1	4	4	3	2	1	2	1	4	1	2	1	1	1	2
216	1	2	1	2	1	1	3	4	1	1	4	4	7	1	5	1	1	4	4	3	2	1	1	2	4	2	3	1	1	1	3
217	2	3	1	2	1	1	5	5	2	2	4	1	9	2	1	1	1	1	3	4	2	2	1	2	3	1	2	9	6	4	3
218	1	2	1	2	3	1	3	4	1	2	6	1	5	2	3	1	1	6	5	4	2	1	1	2	4	2	2	1	6	3	3
219	1	2	3	1	3	1	3	6	1	1	4	4	6	1	2	1	1	5	4	3	2	1	1	2	5	2	3	1	1	1	3
220	1	2	3	1	3	1	3	6	1	1	5	4	3	1	2	1	1	5	4	3	2	1	1	2	5	2	3	1	1	1	3
221	1	3	1	3	2	1	3	4	1	1	4	4	8	2	1	1	1	4	4	2	2	1	1	1	4	2	2	1	1	1	2
222	1	2	1	3	2	1	3	4	1	1	4	4	8	2	1	1	1	4	4	3	2	1	2	1	4	1	3	9	4	3	3
223	1	2	1	3	1	1	3	4	1	1	3	4	4	1	5	1	1	4	3	2	2	1	2	1	4	2	3	1	1	1	1
224	1	2	1	4	2	3	3	4	1	1	4	4	5	1	1	1	1	4	4	2	2	1	1	2	4	2	2	1	1	1	2

*Case refers to house surveyed. Variable list is found in Appendix A, starting with question 5 (Type of Structure).

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