## **Communities and Diamonds**

Socio-economic Impacts on the Communities of: Łutselk'e, Rae-Edzo, Rae Lakes, Wha Ti, Wekweti, Dettah, Ndilo, and Yellowknife

2000 Annual Report of the Government of the Northwest Territories under the BHP Socio-economic Agreement



Prepared by the GNWT Departments of: Health and Social Services Education, Culture and Employment NWT Housing Corporation Resources, Wildlife and Economic Development and the NWT Bureau of Statistics

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# **Timeline**

Period	Industrial, Social & Political Milestones
1995-96	Ekati environmental assessment.
October 1996	Socio-economic Agreement signed between BHP (on behalf of the Ekati Mine project) and the Government of the Northwest Territories (GNWT).
Fall 1996	Ekati construction begins.
March 1997	Permitting process begins for the Diavik Diamond Mine project.
1997	Colomac Mine closes.
	Giant Mine lays off about 40 workers.
	Miramar Con Mine lays off approximately 120 people.
	The employment rate in Yellowknife worsened marginally since 1989. This can be attributed in part to decreases in the work forces at the Giant and Con Mines starting in 1996, and at the Government of Northwest Territories (GNWT) beginning in 1995, as the government prepared for the reduced demands on its resources after the formation of Nunavut Territory. This was going to be added to the timeline
1998	Lupin Mine (Nunavut) enters care and maintenance status, laying off almost 500 workers.
	Miramar Con Mine suspends operations during labour strike.
	Ekati operations phase begins in October.
1999	Con Mine operations resume in mid-year
	Miramar acquires Giant Mine
2000	Lupin operations start again with a smaller workforce.
	Giant Mine: operations begin again on a reduced scale, with fewer than 100 employees.
1997 to 2000	Licenses issued for oil and gas exploration, starting with Sahtu land release in 1997, followed by Fort Liard.
	To the extent that socio-economic effects associated with oil and gas exploration are similar to diamond mine effects, it will mask the effects of diamond mines on their local communities.
December 2000	Diavik construction phase begins

## Overview

In 1996 the GNWT negotiated a socio-economic agreement with BHP Billiton for its Ekati diamond project, promoting the development and well being of the people of the NWT, particularly people in the communities neighbouring the mine. The focus of the Agreement is monitoring socio-economic effects, and promoting social, cultural and economic well being.

Under the Agreement, the GNWT is responsible for the establishment and maintenance of an industrial monitoring program. This program uses public statistics and mine-employee surveys to identify how the Projects may affect the lives of people and communities. The result of the industrial monitoring program is this Annual Report. The Report is used to look for ways to strengthen the opportunities and mitigate negative impacts of the Project. A technical description of the GNWT industrial monitoring program is found in Appendix A. BHP Billiton issues its own report describing NWT successes in realizing business and employment opportunities.

## The BHP Billiton-GNWT Socio-economic Agreement

The BHP Billiton-GNWT Socio-economic Agreement acknowledges the possible impact of the Ekati Project on NWT communities. The Parties agree to protect and promote the wellness of any peoples or communities affected by the Ekati Project, and to minimize any adverse social impacts of the Project. In cooperation with local communities, the Parties can identify mitigation for any negative impacts, and also identify activities that could produce greater benefits.

The Parties use fourteen (14) indicators for health and wellness to monitor and assess the impact of the Project. The indicators may change from time to time, based on discussions with local communities and between the Parties.

In addition to these 14 indicators, BHP Billiton is to collect attitudinal survey information from its employees. The GNWT is to incorporate both the indicators and the survey into this Annual Report. The first survey was conducted in 2000.

#### Socio-economic Indicators

#### Social Stability and Community Wellness Indicators

number of injuries

number of potential years of life lost

number of suicides

number of teen births

number of children in care

number of complaints of family violence

number of alcohol- and drug- related crimes

number of property crimes

number of communicable diseases

housing indicators

#### Non-traditional Economy Indicators

average income of residents

employment levels and participation

number of social assistance cases (now called income assistance cases)

high school completion

## **Trends**

The Report compares trends occurring in the 'local communities' for the BHP Mine project, against those trends occurring in the rest of the NWT. In some cases, a comparison is also made to national trends.

Data is monitored for the following 'local communities' — Łutselk'e, Rae Edzo, Rae Lakes, Wha Ti, Wekweti, Detah, Ndilo (the 'Small Local Communities'), and Yellowknife. Because of its size, Yellowknife is reported separately. 'NWT' data in this report, regardless of the year being reported, is a roll-up of those communities remaining in the Northwest Territories after the creation of the Nunavut Territory.

Data are provided in as much detail as possible. However, there are instances where the small number of reported cases would compromise confidentiality or where a data source has specific reporting constraints. In those instances, raw data has been suppressed. In most cases, Ndilo data are included in Yellowknife. In some cases, Detah data are also included in Yellowknife data.

The NWT population is small, and community data can fluctuate widely from one year to the next. To make it easier to see the trends that may be happening, the earliest comparable data available is being used. In some cases, beginning with this report, rolling averages are also being used. This will help smooth out the natural swings in data.

A discussion of each indicator follows. Findings are summarized at the end of this section. For each Annual Report, The Departments that jointly prepare the material attempt to use the most accurate data available. Much of the data in this Report is from administrative databases. These databases undergo continual refinement, until their data becomes part of the 'official' national record published by Statistics Canada. For this reason, data in this report should replace that of earlier reports, and may itself be subject to future revisions. Detailed data tables are in Appendix C.

## Indicators

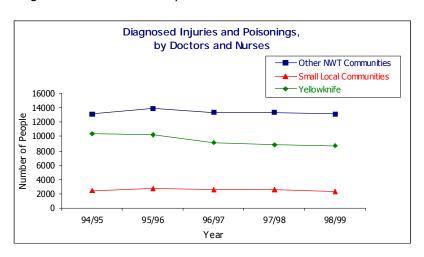
#### Social Stability and Community Wellness

A large industrial project such as the BHP-Billiton Ekati Mine could act as a catalyst for improved self-esteem, a higher standard of living, improved education and skill levels, and a generally improved quality of life. On the other hand, project employment could aggravate existing social problems by increasing stress and related alcohol abuse, alienating people from their traditional lifestyles, and by increasing the pace of change in communities already having difficulty dealing with change<sup>1</sup>.

It is reasonable to expect that a change in substance abuse or other reckless behaviour may be reflected in this first set of three indicators: injuries, premature deaths, and suicide. However, incidences of child injuries and poisonings could also reflect parental absence.

# injury and poisoning

This indicator draws upon the data for all injuries, which include major traumas (e.g., broken bones, severe burns), minor wounds (e.g., cuts, scrapes and bruises), poisoning, overdoses, suicides and homicides. The numbers presented reflect diagnosed injuries — not people. One person could receive multiple injury diagnoses in the same year.



Data source: Department of Health and Social Services

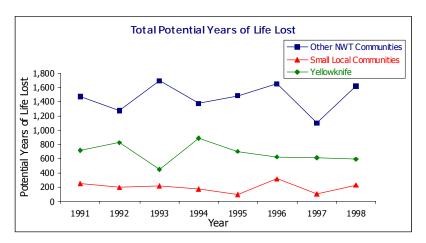
Accidental injuries are preventable events. More often than not, accidents and mishaps leading to injury happen as a result of carelessness (e.g., unsafe firearm storage) and recklessness (e.g., driving too fast). Alcohol consumption is a factor underlying many injuries.

The trend in the Small Local Communities matches that

throughout the NWT. This means that whatever factors underlie this trend, they are not specific to the Ekati mine.

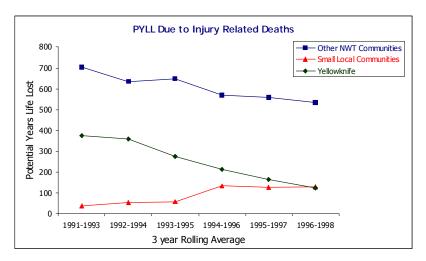
#### 2. deaths

PYLL is an indicator of premature death at an early age. In the NWT, injuries have been responsible for about 40% of all premature deaths over the past decade.



Data source: Statistics Canada, Vital Statistics

PYLL varies considerably from year to year, making it hard to interpret this indicator and to detect trends. It does appear as though PYLL has been slowing trending downward in Yellowknife, but not elsewhere in the NWT, since 1994. PYLL due to injuries are displayed in the Figure below.



Data source: Statistics Canada, Vital Statistics

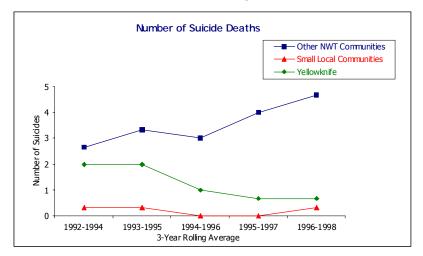
Year-to year variation in PYLL due to injuries makes it difficult to detect any trends except for Yellowknife,

where PYLL due to injuries has been decreasing.

#### suicide

Suicide deaths are included with the injury data. They are also reported separately because of the potential link between suicide and social upheaval. Suicide is often associated with mental health problems such as depression, and with social issues such as spousal separation. Alcohol abuse and dependency are also risk factors.

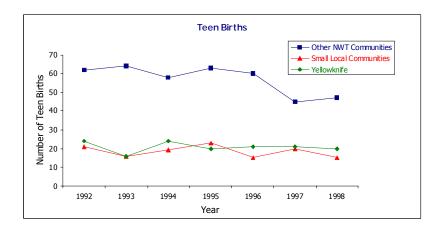
Since 1992, there have been two suicides in the Small Local Communities. A three-year rolling average shows occurrences of suicide in Yellowknife are declining and there is no clear trend in the Small Local Communities. However, incidents are increasing elsewhere.



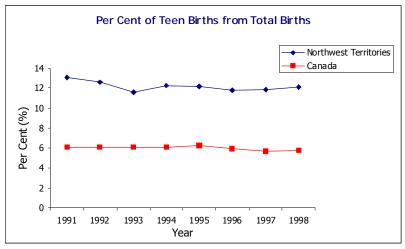
Data source: Department of Health & Social Services

#### 3. births

The Figure below presents teen births, where the mother is 19 years of age or younger.



Data source: Statistics Canada



Source: Statistics Canada

In Canada, teenage birth rates are considered to indicate risk factors related to single parenthood, early school leaving, and social dependence. It remains questionable whether the same risks are associated with teenage births in the NWT, where the extended family plays a larger role and where the opportunities for custom adoption extend the options available to teenage mothers.

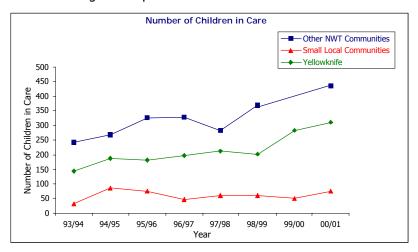
The Canadian trend is toward an increasing proportion of teen births. In the Other NWT Communities, it appears there has been a gradual decline in the number of teenage births since 1992. This downward NWT trend has not occurred in the local communities.

Absence from home for two weeks at a time could have an impact on marriages. Stress caused by a number of factors — need for money, separation, suspected infidelity — are major causes of marriage breakdown. With a rotational work system, marriages are likely to experience some of the stress of separation<sup>2</sup>. Because of concerns expressed about increases in substance abuse and other addictive behaviours, the effects of rotation and family separation, and their relation to family well being, the next cluster of indicators focuses on family dynamics. These indicators are: single-parent families, children in care, mothers and children using shelters, and family violence.

#### 5. children in care

The graph below shows the number of children in care between 1995/96 and 2000/01. In Yellowknife the number of children in care has increased by 62%, while in the Small Local Communities the number of children in care has decreased by 5% since 1995/96.

However, these numbers must be interpreted with caution. Increasing numbers of children in care may not necessarily reflect an increase in the incidence of child abuse and neglect – it may simply reflect higher rates of reporting, or more vigorous enforcement practices. Similarly, a decrease in the number of children in care may not reflect a decrease in children needing protection – it may simply reflect alternative strategies for resolving child protection issues.

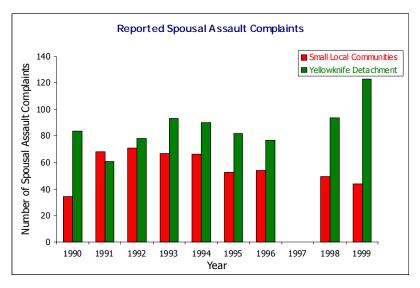


Data source: GNWT Department of Health and Social Services

## family violence

Family violence can take many forms. These include spousal, child and elder abuse. Abuse may be physical, sexual, emotional, verbal, financial and psychological. Family violence may be linked to subsequent alcohol and/or drug abuse, delinquency and violence, mental health problems and suicide<sup>3</sup>.

Spousal assault complaints have been declining in Small Local Communities since 1995. Yellowknife complaints have fluctuated more over time, with a dramatic increase in 1999.



Data source: RCMP (1997 data is not available at this time)

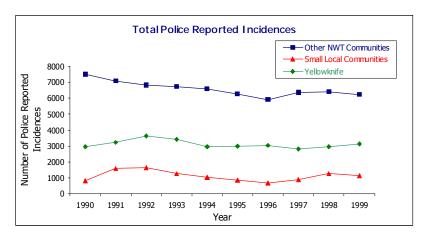
#### 7. crime

New income can lead to alcohol and drug abuse, and can intensify existing problems<sup>4</sup>.

Large communities such as Yellowknife and Hay River, with years of wage employment experience, will be affected more by outside influences than by employment and income factors. These outside influences may not always be desirable and could affect the quality of life in these larger centres<sup>5</sup>.

Industrial employment may divide communities into the "haves" and "have-nots." If this were to happen, property crime may increase. Rotation employment may decrease parental authority in the home, which may surface as an increase in juvenile offences<sup>6</sup>.

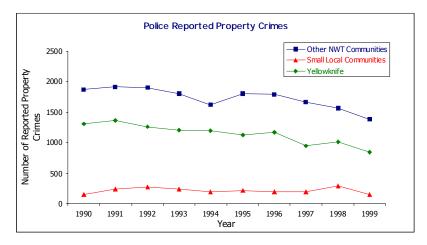
Yellowknife is the most likely centre to experience an increase in drug trafficking<sup>7</sup>.



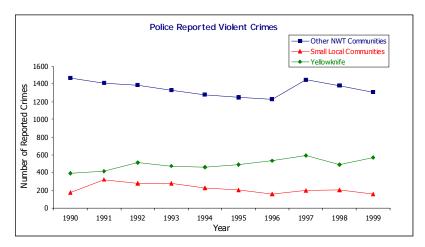
Data source: RCMP

Incidences of territorial crimes dropped dramatically in 1994. The events underlying this reported data need to be investigated. Overall crime rates in the local area have been relatively steady. However, some apparent changes have occurred in the trends for specific types of crime.

Property crime has decreased over time in Yellowknife, with no obvious change in the Small Local Communities.



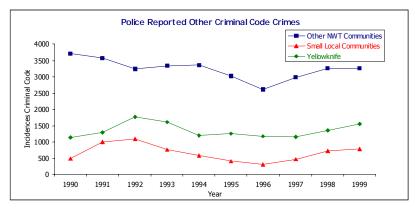
Data source: RCMP



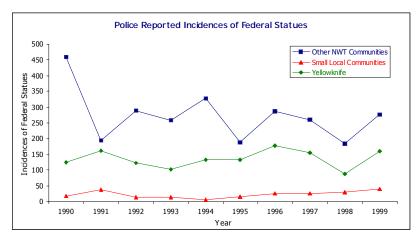
Data source: RCMP

Violent crime is related to spousal assault. Compared to other NWT communities, the level of violent crime in the Small Local Communities has been stable. Violent crime data for Yellowknife and Other NWT Communities is variable with no distinct pattern.

'Other Criminal Code' crimes, which include mischief crimes, may be the most reliable indicator of alcohol-related crimes. Since 1996, there has been a gradual increase of these in Yellowknife and in the Small Local Communities.



Data source: RCMP

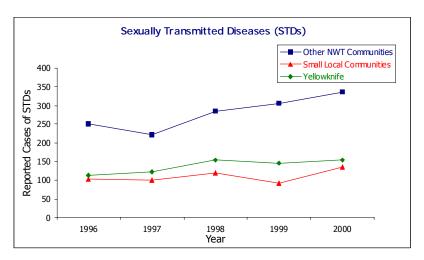


Data source: RCMP

Federal Statute crimes, which would include drug trafficking, have increased in Yellowknife since 1998. The increase could be related to either increased drug use or increased enforcement activities.

# 8. communicable diseases

The incidence of STDs has been increasing throughout the NWT— an increase of 34%. In Yellowknife, STD cases have increased by 37% and in the Small Local Communities STD cases have increased by 31% over the past five years.



Data source: Department of Health & Social Services

Whatever factors are responsible for the increasing incidence of STDs, it appears they are found throughout the NWT, and are not restricted to the local communities.

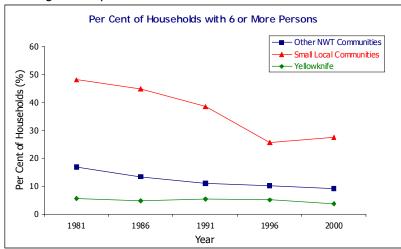
#### 9. housing

Regular income can improve the standard of living of both individuals and communities. People with regular incomes can purchase / build their own homes, relieving some of the stress on housing in many communities<sup>8</sup>.

The quality of housing is determined by assessing the housing problems of individual households. The NWT Housing Needs Survey identifies three types of housing problems. 'Suitability' refers to the problem of overcrowding, which can lead to household accidents and increased transmission of airborne infections. 'Adequacy' refers to the physical condition of the home. 'Affordability' refers to the extent to which the household pays an excessive amount for shelter. Households with one or more of these problems and with a total income below a community-specific threshold are considered to be in 'core need'.

Overcrowding is influenced by birth rates, changes in family structure, and changes in income.

According to the 2000 NWT Housing Needs Survey, there has been a dramatic decrease in overcrowding in the Small Local Communities since 1981. Outside the Small Local Communities the decline is less pronounced, although this problem also much less severe.

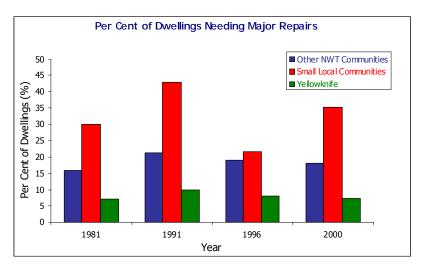


Data source: NWT Housing Corporation

Some 7% of Yellowknife households required major repairs at the time of the 2000 Housing Needs Survey, compared to 35% of households in the Small Local Communities and 18% in the Other NWT Communities.

Overall, 11% of households were in core need in Yellowknife, 51% in the small Points of Hire

communities, and 25% in other NWT communities.



Data source: NWT Housing Corporation

#### Non-traditional economy

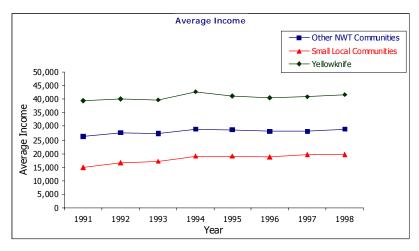
# average income

The report on the Health of Canadians states "... the distribution of income in a given society may be a more important determinant of health than the total amount of income earned by society members. Large gaps in income lead to increases in social problems and poorer health among the population as a whole.9"

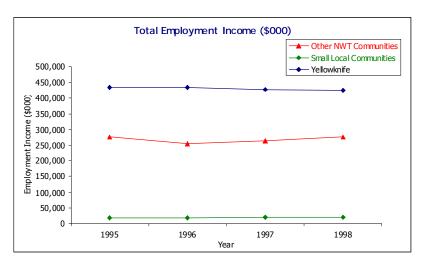
In 1999, the average personal income for all of the Northwest Territories was \$35,650, compared to \$29,010 for all of Canada. Although the Northwest Territories is well above the Canadian average income, the distribution of the income varies greatly between communities.

In 1999 Small Local Communities in the Northwest Territories had average incomes \$7,000 lower than the Canadian average, and \$13,000 less than the Territorial average. Even where the average income in the NWT is comparable to Canadian earnings, the higher cost of food, clothing and shelter means people are not able to buy as much with the same amount of money<sup>10</sup>.

Although the income in Small Local Communities and other NWT communities is increasing, this has been a natural trend prior to diamond mining. Yellowknife had a slight peek in 1994 and has since stayed constant.



Data source: Statistics Canada



Data source: Statistics Canada

# 12. employment & participation

Increases in stable employment can lead to improvement in the health and well being of the general population. Unemployed people tend to suffer more health problems than those who are employed, while unstable employment can cause stress that affects physical, mental, and social well being 11.

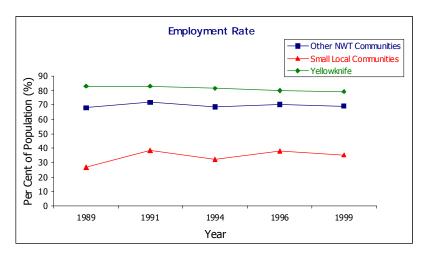
The employment rate for the NWT has increased since 1989. The most drastic increase is seen in the Small Local Communities, with an increase from 26.7 to 34.6 per cent in a ten-year period; this rate is well below the Canadian rate, however, and is still an issue of concern.

The employment rate in Yellowknife has decreased marginally since 1989. This can be attributed in part to decreases in the work forces at the Giant and Con Mines starting in 1996, and with the Government of Northwest

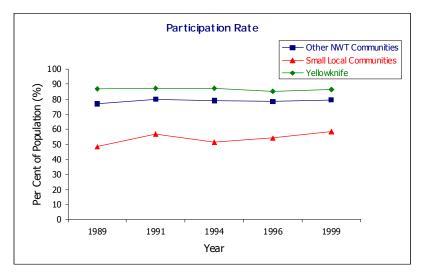
Territories (GNWT) between 1995 and 1999.

The mining industry provided relatively stable employment at the time of the 1994 Labour Force Survey and the 1996 Census, and employment in mineral exploration expanded considerably during this period. By 1997, employment in some mining sectors began declining.

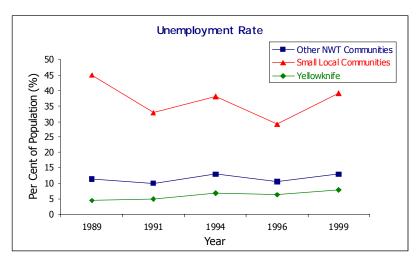
Detailed employment data by community from BHP Billiton would be needed to analyse how the Ekati Mine has affected employment in the Small Local Communities.



Data source: NWT Bureau of Statistics and Statistics Canada



Data source: NWT Bureau of Statistics and Statistics Canada



Data source: NWT Bureau of Statistics and Statistics Canada

Unemployment rates measure the number of adults and youth actively looking for work. If employment opportunities entice more 'discouraged workers' into the labour force the participation and unemployment rate may increase. With low unemployment, employers of seasonal and unstable or short-term occupations can sometimes have difficulties finding eligible employees.

Unemployment has been increasing in Yellowknife. It has been variable in the Small Local Communities.

# 13. income assistance cases

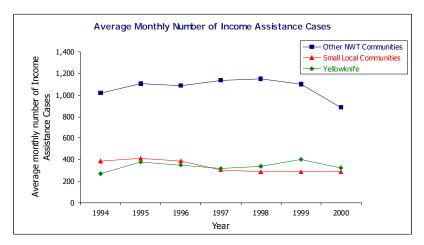
People on income assistance are more likely to experience health-related problems and to suffer more from low self-esteem than those who are employed <sup>12</sup>.

There are a number of factors that relate to the need for income assistance. Availability of employment is obviously one, but others such as income level, level of education and personal factors can be equally important.

The number of income assistance cases has decreased in most areas of the NWT. The case count is the number of times all heads of households apply for assistance during the year; one household can apply up to twelve times. Yellowknife has noticed a slight increase since 1994, while all other Small Local Communities have recorded a decrease in assistance cases.

Possible confounding factors to investigate are migration between communities, age-related factors such as the proportion of young families, and the

effects of industrial activity in the oil and gas sector.

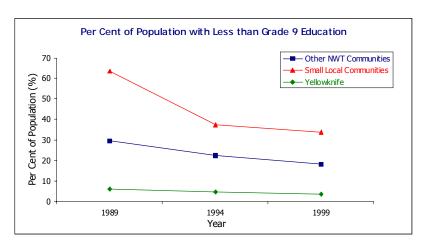


Data source: Education, Culture & Employment and NWT Bureau of Statistics

Project jobs and income for NWT residents can help to improve self-esteem, improve education and skill levels, and generally improve the quality of life in those communities hardest hit by social problems<sup>13</sup>.

15. adults with less than grade 9 education

adults with high school diploma There is a direct link between educational attainment and literacy levels. Without strong social supports, people with low literacy skills may find it difficult to access health information and services. They are also more likely to be unemployed and poor. Higher levels of education are associated with better health, longer life expectancy, and other positive outcomes.

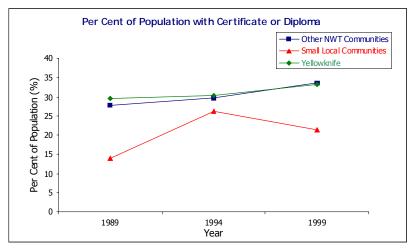


Data source: NWT Bureau of Statistics

The high school graduation rate in the NWT is about one-third of the national average 14. Even so, the percentage of the population with less than Grade 9 has dropped substantially. The greatest improvement in basic NWT education level (grade 9) occurred in small communities, with the improvement most evident in the Small Local Communities before the Ekati Project was built.

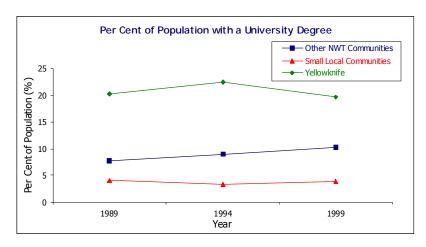
There has also been an improvement in the per cent of NWT residents who have earned certificates and diplomas. This is reported on the assumption that practical certificates and diplomas reflect an increase human capital, and therefore an increase in the employability of northern residents. Various grade extensions have been occurred in communities across the north since 1991, and could be the main cause for the drastic changes in the grade levels of the northern population.

There was an increase in the Small Local Communities before 1994. The decrease in the Small Local Communities since 1994 is presumably due to outmigration.



Data source: NWT Bureau of Statistics

The proportion of the population that has a degree has been steadily increasing in NWT communities outside the Small Local Communities, while holding steady in the Small Local Communities. The percentage has been variable in Yellowknife, with a drop in the proportion of Yellowknife residents holding a degree coinciding with the restructuring of the GNWT when Nunavut was created.



Data source: NWT Bureau of Statistics

Several factors contribute to changes in education level. Because NWT education levels are agedependent, demographic changes over time are expected to change the reported education level. Based on the data currently available, there is no apparent link between education improvements and the Ekati project.

## What Ekati Employees Told Us

The Ekati survey was jointly designed by BHP and the GNWT. The questions roughly mirror the types of impacts covered by the socio-economic indicators.

The survey was given to 438 employees on site. Only employees working directly for BHP and working at the mine site were interviewed. Sample size and methodology were set by the NWT Bureau of Statistics. The survey was administered in 2000 by a BHP contractor. Raw data was submitted to the NWT Bureau of Statistics, which weighted and summarized the survey results. Response rates were generally high, with the exception of one question asking the employee in which community he or she lived.

Survey responses appear in Appendix D. The text below gives an analysis and summary of the responses.

#### physical health

The vast majority of Ekati employees reported no change in health as a result of working at Ekati. Of those who did experience a change, most stated they were sick more often.

#### alcohol use

Almost 92% of Ekati employees from Yellowknife, and 71% of employees from the Small Local Communities, reported consuming alcohol when they were away from the mine.

Employees were asked how often they drank more than five drinks at a time. This is used as an indication of binge drinking <sup>15</sup> (the most extreme form of alcohol abuse comes from regular binge drinking). 11% of employees from Yellowknife reported binge drinking one or more times a week, and 37% reported binge drinking 1 to 3 times a month. Only 6% of employees from the Small Local Communities — a total of 4 — reported binge drinking one or more times a week.

Seventy per cent (70%) of employees from the Small Local Communities and 50% from Yellowknife reported drinking less often after working at the mine. Seven per cent (7%) of employees from Yellowknife reported drinking more often. No employees from the Small Local Communities reported drinking more often.

#### safety net

52% of Yellowknife employees and 57% of Small Local Community employees reported support programs as adequate.

Regardless of community of residence, only 10% of employees reported support programs to be inadequate.

Employees were asked to whom they would turn if they were trying to deal with a social or emotional problem. Regardless of where they lived, most employees said they talked about their problems with their family or friends.

84% of Yellowknife respondents and 91% of local community respondents said their families were supportive when they leave to go to work at Ekati.

#### relationships

Between 19 and 21% of employees felt they had grown closer to their spouse. For those employees not living in Yellowknife, 11% felt they and their spouse had grown apart. 16

The proportion of Ekati employees who believed their jobs had a negative impact on their children was significant. The highest level of negative impact was reported by parents with children younger than nine years old.

Employees living in the Small Local Communities were more likely to feel their absence from home was negatively affecting their young children.

#### optimism

Despite the generally negative perception of the impact of their jobs on their children, over 80% of employees believe their lives will be better five years from now.

## **Summary of Findings**

Indicator	Observations	Comments
Social Stabilit	y and Community Wellness Indicators	
injuries	Incidences of <b>injuries and poisonings</b> are decreasing in both Small Local Communities and throughout the NWT.	There is no apparent relationship with the Ekati Project.
deaths	<b>PYLL</b> has been decreasing in Yellowknife but not elsewhere.	No apparent link.
	<b>PYLL due to injuries</b> is dropping in the NWT overall, decreasing more rapidly in Yellowknife. Rates are increasing in the Small Local Communities.	Smoothed trend Small Local Communities seems to be particularly affected by one year's data.
	Small Local Communities remain unchanged. Number of <b>suicides</b> occurring in Yellowknife appears to be declining.	Implications of data are not yet clear.
births	NWT incidences of <b>teen births</b> are decreasing, which matches the national trend. However, the number of teen births in Yellowknife and in the Small Local Communities is not changing.	
families	Increases in <b>children in care</b> are occurring throughout the NWT, but dramatically so in Yellowknife.	Data must be interpreted with caution.
0.0		Databases pre 2000 / 2001 do not always identify originating community of child.
	Spousal assault complaints declining in Small Local Communities. Yellowknife complaints fluctuating over time, with a dramatic increase in 1999.	

crime	<b>Alcohol-related</b> crimes are thought to be a substantial portion of NWT crime.	As reliable official data is not available, trends over time have not been examined.
	<b>Property</b> crime has decreased in Yellowknife, with no obvious change in the Small Local Communities.	
	<b>Violent</b> crime data for Yellowknife and Other NWT Communities is variable with no distinct pattern.	
	Since 1996, <b>Other Criminal Code</b> crimes have been increasing throughout the NWT	
	Federal Statute crimes increased in Yellowknife and in Other NWT Communities in 1999.	The increase could be related to either increased drug use or increased enforcement activities.
communicable diseases	STD incidence has been increasing throughout the NWT.	It would be useful to compare the NWT against Canadian trends, to see whether this increase is unique to the NWT.
housing	There has been a dramatic decrease in <b>overcrowding</b> in the Small Local Communities since 1981.	

Non-traditional Economy Indicators		
income & employment	Average income is increasing in Small Local Communities and in Other NWT Communities. Yellowknife income peaked in 1994 and has remained constant since then.	This trend pre-dates the start of diamond mining.
	<b>Employment</b> levels in Yellowknife have deteriorated slightly.	Decreases are likely due to work force reductions at the Giant and Con mines starting in 1996, and to GNWT downsizing beginning in 1995 in prepared for the creation of Nunavut.
		Employment data by community would be needed to understand how opportunities at the Ekati mine have affected employment in Local Communities.
	The number of income assistance cases has decreased in most areas of the NWT, although they have increased in Yellowknife since 1994.	Possible confounding factors to investigate are differences in the rate of population change, migration between communities, age-related factors such as the proportion of young families, and the effects of industrial activity in the oil and gas sector.

education	The per cent of the NWT population with less than <b>Grade 9</b> has dropped substantially since 1989. The greatest improvement in basic NWT education level (grade 9) occurred in small communities.	The most evident improvement occurred in Small Local Communities before the Ekati Project began.
	There has been an increase in the per cent of residents in Small Local Communities who have earned certificates and diplomas.	Community grade extensions could explain the drastic increases in grade levels.
		The drop that occurred in Small Local Communities between 1994 and 1999 may be related to outmigration, but this would need to be investigated.
	The proportion of NWT population with a <b>degree</b> has been holding steady in Small Local Communities.	Based on the data currently available, there is no apparent link between education improvements and the Ekati Project.

Appendix A — The GNWT Industrial Monitoring Program

# Impact of Resource Development

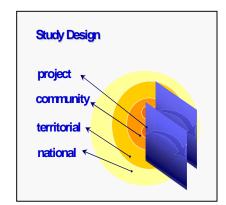
The GNWT is developing consistent monitoring standards that can trigger policy and program responses if needed, and that can credibly link development to achieving policy objectives. Collecting impact information allows better understanding and management of current impacts, and more accurate prediction of and better preparation for future impacts.

Public policy is the way government makes decisions and follows through on priorities set by the people. "Healthy public policy" is a commitment by government to consider every public policy in terms of its impact on the well-being of people. This can include how funds are spent and what programs are developed.

However, information and effective planning is essential for responding to needs and emerging issues<sup>2</sup>. The data analyzed and the information it provides help support policy decisions. In this way, NWT residents can be assured their interests are protected, and a common vision can evolve of how resource development can best benefit NWT residents.

### The Model

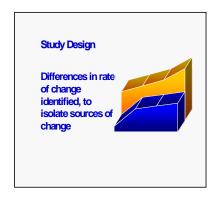
Through socio-economic agreements, the GNWT is establishing an industrial monitoring program that combines longer-term objective indicators available through public databases with shorter-term subjective indicators captured through surveys. These indicators help capture data across several populations.



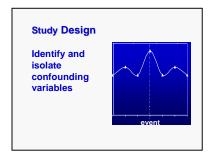
Project-specific subjective indicators come from on-site surveys. Where possible, subjective indicators have been chosen that are also used in surveys at other population levels.

Some indicators run through all levels. For example, one question in the current Attitudinal Survey is also asked in the National Population Health Survey, to allow comparison between sitespecific data and data from national and territorial sources.

Control is introduced into the study design by comparing data from the immediately affected area against national and territorial data.



Examining differences in rates of change across population levels can allow naturally-occurring changes to be isolated from project-specific or development-specific changes. Changes within an indicator series can also be examined, to identify significant events that affect observed results.



The principle is the same as in other fields of assessment: identify confounding variables, so that their effects can be isolated out.

## Appendix B — Glossary

#### Communicable Disease

Any disease that can be transmitted from one person to another, most commonly through body contact or through germs in the air.

#### **Employment Rate**

The percentage of persons 15 years of age and over who were employed during the reference period. The formula used to calculate the Employment Rate is x/y\*100 where x = the number employed and y = the population 15 years & older

#### **Labour Force**

Those people 15 years and older who are working or who are actively looking for work.

#### Other Criminal Code Crime

This is mischief, prostitution, arson, weapons offenses, and other miscellaneous crimes.

#### Overcrowding (housing indicator)

According to the 2000 NWT Housing Needs Survey, overcrowding is defined as having six or more residents in one house.

#### **Participation Rate**

The percentage of persons 15 years of age and over who are in the labour force.

The formula used to calculate the Participation Rate is x/y\*100 where x = the number in the labour force and y = the population 15 years & older

## Potential Years of Life Lost (PYLL)

PYLL is calculated by assuming that an average life lasts 70 years, and by subtracting the age at which a person dies from 70. For example, a person who died at age 65 would have a PYLL of 5 (70-65=5). A person who died at age 20 would have a PYLL of 50. The PYLL for an entire population is simply the sum of all the years of life lost by those who died prior to reaching the age of 70.

#### **Property Crime**

This includes break and enter, motor vehicle theft, other thefts, having stolen goods, and fraud.

#### Social Assistance Annual Payments

The total of all payments of social assistance over a calendar year.

#### Social Assistance Annual Cases

The total number of people requesting and receiving social assistance for a given year.

#### Teen Births

The number of births to persons who are less than 20 years of age.

## **Unemployment Rate**

The percentage of the labour force that was unemployed during the reference period. The formula used to calculate the Unmployment Rate is x/y\*100 where x = the number unemployed and y = the number in the labour force.

#### Violent Crime

These crimes include homicide, attempted murder, assaults, sexual assaults, other sexual offences, robbery, and abduction.

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Shaping Our Future: A Strategic Plan for Health And Wellness, page 3.

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## Diagnosed Injuries and Poisonings, by Community of Residence Selected Communities, 1994/95 to 1998/99

Community	Number of I (in private cli	•	•	•	doctors	
	99/00	98/99	97/98	96/97	95/96	94/95
Total, NWT	16,004	16,807	16,965	17,355	19,020	18,761
Total, Other NWT Communities	6,968	7,529	7,689	7,648	8,256	7,923
Total, Small Local Communities	854	790	774	775	825	775
Łutselk'e	124	117	89	107	136	145
Rae Edzo	481	469	479	526	532	435
Rae Lakes	63	74	80	44	57	38
Wekweti	47	49	41	38	33	34
Wha Ti	139	81	85	60	67	123
Yellowknife	8,182	8,488	8,502	8,932	9,939	10,063

Source: Department of Health and Social Services, Medicare and CHMIS databases.

#### <u>Notes</u>

These numbers represent a gross count of diagnoses recorded at the time of treatment: in some cases an individual may have been treated more than once for the same injury or poisoning.

Data has been revised from the last report. Due to record revisions, record entry delays, and database design changes, these numbers are subject to future revisions.

Yellowknife numbers include Ndilo and Detah.

## Diagnosed Injuries and Poisonings, by Community of Residence Selected Communities, 1996/97 to 1998/99

Community	Number of I Community	Number of Injuries and Poisonings Diagnosed by Nurses in Community									
	99/00*	98/99	97/98	96/97	95/96	94/95					
Total, NWT		7,339	7,737	7,705	7,941	7,270					
Total, Other NWT Communities		5,613	5,674	5,722	5,698	5,262					
Total, Small Local Communities		1,494	1,784	1,721	1,957	1,700					
Łutselk'e		239	335	293	307	284					
Rae Edzo		829	964	1,023	1,136	948					
Rae Lakes		142	178	116	145	125					
Wekweti		42	41	42	56	48					
Wha Ti		242	266	247	313	295					
Yellowknife		232	279	262	286	308					

Source: Department of Health and Social Services and CHMIS databases.

#### <u>Notes</u>

These numbers represent a gross count of diagnoses recorded at the time of treatment. In some cases an individual may have been treated more than once for the same injury or poisoning.

Data has been revised from the last report. Due to record revisions, record entry delays, and database design changes, these numbers are subject to future revisions.

Yellowknife numbers include Ndilo and Detah.

Yellowknife numbers for 1998/99 are slightly understated given the Yellowknife Public Health Unit switched information systems in the summer of 1998.

<sup>\* =</sup> data not available

## Person Years of Life Lost (PYLL)

Community Total PYLL								
	1998	1997	1996	1995	1994	1993	1992	1991
Total, NWT	2,445	1,821	2,598	2,273	2,439	2,358	2,290	2,445
Total, Other NWT Communities	1,612	1,095	1,647	1,478	1,369	1,691	1,268	1,472
Total, Small Local Communities	235	109	323	95	181	218	203	255
Yellowknife	598	617	628	700	889	449	819	718

Source: Statistics Canada, Vital Statistics

Community	PYLL Due to Injury-related Deaths									
	1998	1997	1996	1995	1994	1993	1992	1991		
Total, NWT	578	619	1173	763	817	1,371	964	1,025		
Total, Other NWT Communities	415	394	797	484	430	1,030	446	635		
Total, Small Local Communities	48	59	288	37	74	67	28	23		
Yellowknife	115	166	88	242	313	274	490	367		

Source: Statistics Canada, Vital Statistics

## Number of Fatal Injuries, by Community of Residence 1992 to 1998

Community	Number of Suicides									
	1999	1998	1997	1996	1995	1994	1993	1992		
Total, NWT	16	7	6	4	4	4	9	2		
Total, Other NWT Communities	11	4	6	4	2	3	5	0		
Total, Small Local Communities	0	1	0	0	0	0	1	0		
Yellowknife	5	2	0	0	2	1	3	2		

Source: Statistics Canada, Vital Statistics

Community	Number of Injury-related Deaths									
	1998	1997	1996	1995	1994	1993	1992	1991		
Total NWT	21	22	32	22	30	36	30	23		
Total, Other NWT Communities	16	14	23	14	19	26	14	14		
Total, Small Local Communities	2	2	6	2	2	2	2	1		
Yellowknife	3	6	3	6	9	8	14	8		

Source: Statistics Canada, Vital Statistics

## **Historical Birth Statistics**

Community	All Births						
	1998	1997	1996	1995	1994	1993	1992
Total, Northwest Territories	678	722	817	868	819	829	848
Total, Other NWT Communities	320	354	417	458	415	451	433
Total, Small Local Communities	85	78	66	79	81	82	86
Detah	3	1	6	0	2	2	1
Łutselk'e	11	8	5	9	7	5	7
Ndilo							
Rae Edzo	50	45	36	49	52	62	57
Rae Lakes	11	10	11	11	5	4	6
Wekweti	1	2	2	2	1	4	1
Wha Ti	9	12	6	8	14	5	14
Yellowknife	273	290	334	331	323	296	329

Source: Statistics Canada

Community	Teen Birt	hs					
	1998	1997	1996	1995	1994	1993	1992
Total, Northwest Territories	82	86	96	106	101	96	107
Total, Other NWT Communities	47	45	60	63	58	64	62
Total, Small Local Communities	15	20	15	23	19	16	21
Detah	1	0	0	0	0	0	0
Łutselk'e	0	0	0	2	3	1	2
Ndilo							
Rae Edzo	12	11	10	14	13	15	16
Rae Lakes	0	3	4	4	1	0	0
Wekweti	0	0	0	1	0	0	C
Wha Ti	2	6	1	2	2	0	3
Yellowknife	20	21	21	20	24	16	24

Source: Statistics Canada

### Children in Care by Fiscal Year

Community	Number of Children in Care										
	00/01	99/00	98/99	97/98	96/97	95/96	94/95	93/94			
Total, NWT	821	*	632	554	574	584	540	422			
Total, Other NWT Communities	435	*	369	282	329	325	267	243			
Total, Small Local Communities	75	50	61	61	47	76	87	34			
Łutselk'e	10	-	-	-	-	6	11	-			
Rae Edzo	56	23	34	35	27	50	59	23			
Rae Lakes		8	7	-	-	6	-	-			
Wekweti		-	-	7	8	7	-	5			
Wha Ti	9	13	13	12	5	7	10	-			
Yellowknife	311	282	202	211	198	183	186	145			

Source: Department of Health and Social Services

#### Notes

"\*" means data not available.

"-" means data has been suppressed.

Cell values less than five have been suppressed

Numbers are subject to future revisions.

Ndilo is included in Yellowknife in 1999 and 2000. Detah is included in Yellowknife in 1999 only.

Investigations include all children investigated, whether or not they received a service from the Department of Health and Social Services (child in care)

Numbers may have increased due to the impact of the new Children and Family Services Act (in force Oct 98) which has plan of care agreement as a new way to provide services to children. These children could still be living in their parents' home but are receiving services from the Department of Health and Social Services. There isn't an equivalent category to what happened under the previous Act. However, it is possible that many of these children would have been in care under another category from the old legislation.

# Spousal Assault Complaints, NWT & Selected Communities, 1990 to 1999

Community	Spousa	l Assau	It Comp	laints						
	1999	1998	1997*	1996	1995	1994	1993	1992	1991	1990
Total, NWT										
Total, Small Local Communities	44	49		54	53	66	67	71	68	34
Rae Edzo Detachment	36	36		48	39	59	55	58	52	26
Wha Ti Detachment (1999)	-									
Łutselk'e Detachment	5	13		6	14	7	12	13	16	8
Yellowknife Detachment	123	94		77	82	90	93	78	61	84

Source: RCMP - UCR Statistics System

<sup>&</sup>quot;-" means data has been suppressed.

<sup>&</sup>quot;\*" means data is not available.

## Historical Police-reported Crime Statistics Northwest Territories, 1990 to 2000

Community	Number	of Police	Reporte	ed Crime	s					
	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990
Northwest T	erritories	5								
Total	10,479	10,589	10,093	9,654	10,095	10,565	11,412	12,134	11,932	11,300
Violent	2,042	2,076	2,239	1,914	1,936	1,964	2,083	2,177	2,151	2,031
Property	2,376	2,881	2,813	3,149	3,144	3,001	3,250	3,432	3,515	3,328
Other	5,584	5,330	4,600	4,099	4,676	5,132	5,704	6,098	5,872	5,339
Federal	477	302	441	492	339	468	375	427	394	602
Total, Other	NWT Con	nmunitie	s							
Total	6,219	6,387	6,360	5,908	6,251	6,573	6,728	6,825	7,093	7,499
Violent	1,308	1,382	1,450	1,226	1,246	1,277	1,328	1,390	1,413	1,467
Property	1,383	1,567	1,672	1,788	1,806	1,616	1,807	1,901	1,917	1,873
Other	3,251	3,254	2,978	2,607	3,011	3,352	3,335	3,245	3,568	3,700
Federal	277	184	260	287	188	328	258	289	195	459
Total, Small	Local Co	mmunitie	es							
Total	1,123	1,259	897	681	843	1,023	1,292	1,657	1,599	836
Violent	163	205	200	158	202	228	277	276	320	173
Property	144	297	197	189	216	195	236	272	237	150
Other	776	727	474	307	408	593	765	1,094	1,004	494
Federal	40	30	26	27	17	7	14	15	38	19
Yellowknife										
Total	3,137	2,943	2,836	3,065	3,001	2,969	3,392	3,652	3,240	2,965
Violent	571	489	589	530	488	459	478	511	418	391
Property	849	1,017	944	1,172	1,122	1,190	1,207	1,259	1,361	1,305
Other	1,557	1,349	1,148	1,185	1,257	1,187	1,604	1,759	1,300	1,145
Federal	160	88	155	178	134	133	103	123	161	124

Source: RCMP - UCR Statistics System

Notes:

"Other" refers to 'Other Criminal Code.'

## Incidence of Communicable Diseases

## NWT & Selected Communities 1996 - 2000

Community	Tuberculos	sis			
	2000	1999	1998	1997	1996
Total, Northwest Territories	10	16	7	20	24
Total, Other NWT Communities	-	5	-	-	8
Total, Small Local Communities	8	11	6	7	16
Detah					
Łutselk'e	-	-	-	-	8
Ndilo					
Rae Edzo	-	8	-	-	-
Rae Lakes	-	-	-	-	-
Wekweti	-	-	-	-	-
Wha Ti	-	-	-	-	-
Yellowknife	-	-	-	10	-

Community	STDs				
	2000	1999	1998	1997	1996
Total, Northwest Territories	625	542	559	447	466
Total, Other NWT Communities	337	305	286	222	251
Total, Small Local Communities	135	92	120	101	103
Detah					
Łutselk'e	17	10	10	8	6
Ndilo					
Rae Edzo	54	42	52	48	61
Rae Lakes	24	-	6	11	7
Wekweti	-	-	-	-	-
Wha Ti	39	37	52	34	28
Yellowknife	153	145	153	124	112

Community	Enterics				
	2000	1999	1998	1997	1996
Total, Northwest Territories	43	34	50	46	47
Total, Other NWT Communities	19	15	25	16	13
Total, Small Local Communities	4	3	4	6	7
Detah					
Łutselk'e		-	-	-	-
Ndilo					
Rae Edzo		-	-	5	-
Rae Lakes		-	-	-	-
Wekweti		-	-	-	-
Wha Ti		-	-	-	-
Yellowknife	20	16	21	24	27

Source: NWT Communicable Disease Registry, Department of Health and Social Services

#### <u>Notes</u>

Yellowknife figures include Detah and Ndilo.

STDs include chlamydia, gonorrhea and hepatitis B.

Numbers are subject to future revisions

- "-" means data has been suppressed.
- "-" means data is not available.

## Historical Indicator of Crowding in Housing

Percent of Household with 6 or More Persons, NWT & Selected Communities, 1982 to 2000

Community	Percent o	Percent of Households with 6 or More Persons							
	2000	1996	1991	1986	1981				
Total, Northwest Territories	7.8	8.6	9.8	11.5	13.9				
Total, Other NWT Communities	9.0	10.1	10.9	13.4	16.7				
Total, Small Local Communities	27.5	25.6	38.4	44.8	47.9				
Detah	19.0	0	28.6	33.3	33.3				
Łutselk'e	21.6	17.6	28.6	30.0	44.4				
Ndilo	17.7	23.1	20.0						
Rae Edzo	29.7	31.1	34.9	46.0	48.9				
Rae Lakes	34.3	36.4	50.0	42.9	57.1				
Wekweti	16.7	*	*	*	*				
Wha Ti	36.7	29.4	61.5	50.0	57.1				
Yellowknife	3.8	5.1	5.4	4.9	5.7				

Source: NWT Housing Corporation: Housing Needs Survey

<sup>&</sup>quot;-" means data has been suppressed.

## Historical Indicator of Adequacy for Housing Northwest Territories

Community	Percent of Dwellings Needing Major Repairs						
	2000	1996	1991	1986*	1981		
Total, Northwest Territories	14.3	14.2	17.4		13.2		
Total, Other NWT Communities	18.0	19.1	21.3		16.0		
Total, Small Local Communities	35.2	21.6	42.9		30.1		
Detah	17.5	18.2	42.9		33.3		
Łutselk'e	30.9	17.6	50.0		22.2		
Ndilo	30.4	15.4	30.0				
Rae Edzo	58.6	45.5	50.0		14.3		
Rae Lakes	31.5	17.6	36.5		19.1		
Wekweti	47.2	-	-		-		
Wha Ti	48.0	17.6	53.8		85.7		
Yellowknife	7.3	8.2	10.0		7.1		

Source: NWT Housing Corporation: Housing Needs Survey

#### <u>Notes</u>

"\*" means data is not available.

"-" means data has been suppressed.

#### Historical Income Statistics — All Returns

#### Northwest Territories, 1991-1999

Community	Total Employmen	t Income (\$000)		
	1998	1997	1996	1995
Total, Northwest Territories	724,431	713,328	704,331	727,532
Total, Other NWT Communities	276,899	264,996	254,384	274,981
Total, Small Local Communities	22,354	21,020	18,691	18,963
Detah				
Łutselk'e	2,552	2,641	1,814	2,078
Ndilo	*	*	*	*
Rae Edzo	14,966	13,915	12,861	12,573
Rae Lakes	1,797	1,756	1,352	1,486
Wekweti	*	*	*	*
Wha Ti	3,039	2,708	2,664	2,826
Yellowknife	425,178	427,312	432,870	433,588

Source: Statistics Canada

#### <u>Notes</u>

Income on "All Returns" shows income from all residents filing a tax return regardless of their level of income.

Changes to the system of tax credits introduced in the early 1990s impacted the number of tax filers, and therefore also 'average income.'

#### Historical Income Statistics — All Returns

Community	Average	Income (	\$)					
	1998	1997	1996	1995	1994	1993	1992	1991
Total, Northwest Territories	34,378	33,666	33,693	33,989	34,970	32,671	32,882	32,008
Total, Other NWT Communities	28,958	28,072	28,122	28,605	28,988	27,428	27,612	26,375
Total, Small Local Communities	19,550	19,623	18,791	19,095	18,991	17,149	16,472	14,928
Detah								
Łutselk'e	18,547	20,039	17,627	17,835	21,263	19,025	18,123	15,633
Ndilo								
Rae Edzo	20,188	20,147	19,341	19,536	19,587	17,758	17,436	16,199
Rae Lakes	17,713	17,853	16,529	16,743	16,621	16,208	13,475	10,969
Wekweti	18,757	18,888	19,186	16,671	16,729	13,186	10,171	11,225
Wha Ti	18,800	18,255	18,673	19,795	17,127	15,130	15,600	12,989
Yellowknife	41,825	41,005	40,700	41,110	42,948	39,705	40,132	39,634

#### <u>Notes</u>

Income on "All Returns" shows income from all residents filing a tax return regardless of level of income.

Changes to the system of tax credits introduced in the early 1990s impacted the number of tax filers and therefore average income.

#### Historical Labour Force Indicators

#### **Northwest Territories**

Community	Employme	nt Rate			
	1999	1996	1994	1991	1989
Total, Northwest Territories	67.5	68.2	65.7	69.3	65.0
Total, Other NWT Communities	69.3	70.4	68.8	71.9	68.1
Total, Small Local Communities	35.5	38.2	32.0	38.6	26.7
Detah	48.0	45.8	33.8	40.0	20.8
Łutselk'e	47.5	45.2	42.6	43.2	27.2
Ndilo					
Rae Edzo	29.5	34.1	30.3	35.9	30.7
Rae Lakes	31.2	33.3	33.3	43.8	12.7
Wekweti	42.3	44.4	26.1	50.0	20.5
Wha Ti	36.8	46.4	30.3	38.3	22.8
Yellowknife	79.5	80.0	81.5	82.9	83.3

Sources: Census (1991, 1996); Labour Force Survey (1989, 1994, 1999)

#### <u>Notes</u>

Comparisons between the labour force surveys completed by the Bureau of Statistics and the Census should be done with caution. The LRS in 1999, 1994 and 1989 were completed during the January-March period. The Census in 1991 and 1996 was done in May and June. Therefore, Census indicators are often higher due to seasonal employment activities.

#### **Historical Labour Force Indicators**

#### **Northwest Territories**

Community	Participat	ion Rate			
	1999	1996	1994	1991	1989
Total, Northwest Territories	78.3	77.2	77.2	78.2	74.9
Total, Other NWT Communities	79.5	78.6	79.0	79.9	76.9
Total, Small Local Communities	58.4	54.0	51.8	57.1	48.5
Detah	63.8	58.3	48.0	55.0	41.6
Łutselk'e	66.4	54.8	62.3	62.2	44.6
Ndilo					
Rae Edzo	55.1	50.5	52.0	55.4	53.3
Rae Lakes	54.5	54.5	37.4	56.3	29.1
Wekweti	65.8	61.1	31.5	56.3	43.6
Wha Ti	54.8	62.5	60.5	61.7	48.5
Yellowknife	86.2	85.4	87.5	87.3	87.1

Sources: Census (1991, 1996); Labour Force Survey (1989, 1994, 1999)

#### <u>Notes</u>

Comparisons between the labour force surveys completed by the Bureau of Statistics and the Census should be done with caution. The LRS in 1999, 1994 and 1989 were completed during the January-March period. The Census in 1991 and 1996 was done in May and June. Therefore, Census indicators are often higher due to seasonal employment activities.

#### Historical Labour Force Indicators

#### **Northwest Territories**

Community	Unemployment Rate						
	1999	1996	1994	1991	1989		
Total, Northwest Territories	13.7	11.7	14.8	11.3	13.2		
Total, Other NWT Communities	12.9	10.5	12.9	10.0	11.5		
Total, Small Local Communities	39.1	29.2	38.2	32.8	45.0		
Detah	24.7	21.4	29.6	36.4	50.0		
Łutselk'e	28.4	13.0	31.7	26.1	39.1		
Ndilo							
Rae Edzo	46.5	32.4	41.7	35.2	42.4		
Rae Lakes	42.7	38.9	10.8	22.2	56.4		
Wekweti	35.6	27.3	17.2	22.2	52.9		
Wha Ti	32.9	28.6	50.0	37.9	53.0		
Yellowknife	7.9	6.4	6.8	5.1	4.4		

Sources: Census (1991, 1996); Labour Force Survey (1989, 1994, 1999)

#### <u>Notes</u>

Comparisons between the labour force surveys completed by the Bureau of Statistics and the Census should be done with caution. The LRS in 1999, 1994 and 1989 were completed during the January-March period. The Census in 1991 and 1996 was done in May and June. Therefore, Census indicators are often higher due to seasonal employment activities.

## Historical Income Assistance

### Northwest Territories

Community	Average	Monthly	Number	of Inco	me Assis	tance Ca	ance Cases		
	2000	1999	1998	1997	1996	1995	1994		
Total, Northwest Territories	1,502	1,786	1,776	1,764	1,823	1,898	1,676		
Total, Other NWT Communities	888	1,100	1,148	1,135	1,083	1,104	1,018		
Total, Small Local Communities	288	287	290	310	388	416	391		
Detah	1	6	6	11	11	8	5		
Łutselk'e	28	26	23	23	37	37	35		
Ndilo									
Rae Edzo	163	159	163	167	185	205	201		
Rae Lakes	17	23	28	29	52	50	48		
Wekweti	11	10	10	10	23	26	18		
Wha Ti	68	63	60	70	80	90	84		
Yellowknife	326	399	338	319	352	378	267		

Source: Education, Culture & Employment and the NWT Bureau of Statistics

## **Historical Education Statistics**

## Northwest Territories, 1989 to 1999

Community	Percent of Popula Education	Percent of Population With Less than Grade 9 Education								
	1999	1994	1989							
Total, Northwest Territories	12.8	15.6	22.5							
Total, Other NWT Communities	18.2	22.5	29.5							
Total, Small Local Communities	33.7	37.3	63.5							
Detah	33.6	23.0	52.5							
Łutselk'e	29.5	27.8	46.2							
Ndilo										
Rae Edzo	31.4	31.8	60.4							
Rae Lakes	51.9	51.7	94.8							
Wekweti	34.2	71.7	91.0							
Wha Ti	34.5	55.2	68.0							
Yellowknife	3.6	4.7	5.9							

Source: NWT Labour Force Survey (LFS)

Community	Percent With Certi	ficate or Diplo	ma
	1999	1994	1989
Total, Northwest Territories	32.5	29.7	27.5
Total, Other NWT Communities	33.5	29.7	27.7
Total, Small Local Communities	21.3	26.2	14.0
Detah	24.3	20.9	8.9
Łutselk'e	29.1	19.7	21.5
Ndilo			
Rae Edzo	21.1	32.7	14.7
Rae Lakes	13.8	21.3	2.2
Wekweti	24.3	5.4	-
Wha Ti	17.7	17.6	18.3
Yellowknife	33.3	30.2	29.6

Source: NWT Labour Force Survey (LFS)

Community	Percent With U	Jniversity Degi	ee
	1999	1994	1989
Total, Northwest Territories	14.0	14.6	12.4
Total, Other NWT Communities	10.3	9.0	7.7
Total, Small Local Communities Small	3.9	3.4	4.1
Detah	-	-	1.0
Łutselk'e	4.9	1.3	1.5
Ndilo			
Rae Edzo	3.1	4.4	5.5
Rae Lakes	1.1	2.3	-
Wekweti	10.8	6.5	3.8
Wha Ti	7.7	2.7	4.6
Yellowknife	19.7	22.5	20.2

Source: NWT Labour Force Survey (LFS)

## BHP Employee Survey, Northwest Territories, 2000

Employee Profile	All NWT			Ethnic	Group			Comn	nunity	
	employe		Aborigi		Non-Aborig		Yellowknife /		Small lo commun	nities
	#	%	#	%	#	%	#	%	#	%
All Employees	438	100.0	235	100.0	203	100.0	286	100.0	90	100.0
Male	356	81.3	196	83.4	160	78.8	214	74.8	89	98.9
Female	82	18.7	39	16.6	43	21.2	71	24.8	1	1.1
Single	121	27.6	76	32.3	45	22.2	91	31.8	17	18.9
Married	188	42.9	62	26.4	126	62.1	133	46.5	33	36.7
Common Law	114	26.0	90	38.3	24	11.8	55	19.2	37	41.1
Divorced/Widowed	14	3.2	7	3.0	7	3.4	7	2.4	3	3.3
15-24 Years.	48	11.0	31	13.2	17	8.4	29	10.1	12	13.3
25-39 Years.	233	53.2	147	62.6	86	42.4	153	53.5	54	60.0
40-54 Years	150	34.2	55	23.4	95	46.8	100	35.0	22	24.4
55 Years & Over	8	1.8	3	1.3	5	2.5	5	1.7	3	3.3
Supervisory/Professional	117	26.7	5	2.1	112	55.2	114	39.9	-	-
Other Positions	322	73.5	231	98.3	91	44.8	172	60.1	90	100.0
Less than Grade 9	20	4.6	20	8.5		-	2	0.7	15	16.7
Some High School	42	9.6	37	15.7	5	2.5	17	5.9	21	23.3
High School Diploma	62	14.2	33	14.0	29	14.3	48	16.8	6	6.7
Certificate or Diploma	238	54.3	143	60.9	95	46.8	148	51.7	48	53.3
University degree	76	17.4	2	0.9	74	36.5	71	24.8	-	-

Safety	All NWT en	nployees		Ethnic G	roup			Commi	unity		
			Aborig	jinal	Non-A	boriginal	Yellowk	nife / Ndilo		Small local communities	
	#	%	#	%	#	%	#	%	#	%	
All Employees	438	100.0	235	100.0	203	100.0	286	100.0	90	100.0	
Increased safety Precaution	392	89.5	216	91.9	176	86.7	260	90.9	82	91.1	
No Change in safety Precautions	46	10.5	20	8.5	26	12.8	26	9.1	8	8.9	
Excellent Health	125	28.5	53	22.6	72	35.5	86	30.1	19	21.1	
Very Good Health	206	47.0	104	44.3	102	50.2	150	52.4	37	41.1	
Good Health	92	21.0	63	26.8	29	14.3	45	15.7	27	30.0	
Fair Health	16	3.7	16	6.8	-	-	5	1.7	6	6.7	
Poor Health	-	-	-	-	-	-	-	-	-	-	
No Change in Health	392	89.5	211	89.8	181	89.2	255	89.2	77	85.6	
Change in Health	46	10.5	25	10.6	21	10.3	31	10.8	13	14.4	
Those with a Change in Health:	46	100.0	25	100.0	21	100.0	31	100.0	13	100.0	
Sick More Often	39	84.8	20	80.0	19	90.5	26	83.9	10	76.9	
Sick Less Often	5	10.9	3	12.0	2	9.5	2	6.5	3	23.1	
Not Provided	2	4.3	2	8.0	-	-	2	6.5	-	-	

Alcohol	All NWT e	employees		Ethnic	Group		Community				
			Abor	Aboriginal		Non-Aboriginal		Yellowknife / Ndilo		Small local communities	
	#	%	#	%	#	%	#	%	#	%	
All Employees	438	100.0	235	100.0	203	100.0	286	100.0	90	100.0	
No Consumption of Alcohol	57	13.0	50	21.3	7	3.4	24	8.4	26	28.9	
Consumed Alcohol	381	87.0	186	79.1	195	96.1	262	91.6	64	71.1	
Employees who Consumed Alcohol											
Less Than Once a Week:	91	23.9	50	26.9	41	21.0	52	19.8	22	34.4	
Once a Week	110	28.9	65	34.9	45	23.1	76	29.0	24	37.5	
2-3 Times a Week	136	35.7	57	30.6	79	40.5	100	38.2	17	26.6	
4-6 Times a Week	19	5.0	7	3.8	12	6.2	12	4.6	-	-	
Daily	20	5.2	1	0.5	19	9.7	19	7.3	1	1.6	
Not Provided	4	1.0	4	2.2	-	-	2	0.8	-	-	
More Than 5 Drinks on One Occasion:											
Never	45	11.8	14	7.5	31	15.9	31	11.8	9	14.1	
Less Than Once a Month	142	37.3	59	31.7	83	42.6	102	38.9	18	28.1	
Once a Month	94	24.7	49	26.3	45	23.1	54	24.4	21	32.8	
2-3 Times a Month	61	16.0	49	26.3	12	6.2	33	12.6	13	20.3	
Once a Week	20	5.2	10	5.4	10	5.1	12	4.6	3	4.7	
More Than Once a Week	18	4.7	4	2.2	14	7.2	17	6.5	1	1.6	
Not Provided	2	0.5	2	1.1	-	-	2	0.8	-	-	
Drink Less Often	209	54.9	114	61.3	95	48.7	131	50.0	45	70.3	
Drink More Often	17	4.5	7	3.8	10	5.1	17	6.5	-	-	
Drink the Same Amount	151	39.6	60	32.3	91	46.7	112	42.7	19	29.7	
Not Provided	4	1.0	4	2.2	-	-	2	0.8	-		

Relationships and Safety Net	All NWT e	employees		Ethni	c Group			Comi	munity		
				Aboriginal		Non-Aboriginal		Yellowknife / Ndilo		Small local communities	
	#	%	#	%	#	%	#	%	#	%	
All Employees	438	100.0	235	100.0	203	100.0	286	100.0	90	100.0	
Spouse/Partner Relationships:											
Grown Closer	89	20.3	41	17.4	48	23.6	60	21.0	17	18.9	
Grown Apart	44	10.0	32	13.6	12	5.9	24	8.4	10	11.1	
Remained the same	217	49.5	115	48.9	102	50.2	138	48.3	53	58.9	
No Spouse/Partner	84	19.2	46	19.6	38	18.7	60	21.0	10	11.1	
Not Provided	4	0.9	2	0.9	2	1.0	4	1.4	-	-	
Support Programs:											
Support Program is Adequate	228	52.1	116	49.4	112	55.2	150	52.4	51	56.7	
Support Program is not Adequate	45	10.3	26	11.1	19	9.4	29	10.1	9	10.0	
Do not Know	166	37.9	94	40.0	72	35.5	107	37.4	30	33.3	
Would Discuss Social Problem with:											
Family or Friends	387	88.4	203	86.4	184	90.6	253	88.5	77	85.6	
A Professional	46	10.5	29	12.3	17	8.4	33	11.5	10	11.1	
No One	17	3.9	7	3.0	10	4.9	14	4.9	-	-	

Family & Leisure	Α	II NWT		Ethni	c Group		Community					
	em	ployees	Aborigi	Aboriginal		Non-Aboriginal		e / Ndilo	Small local communities			
	#	%	#	%	#	%	#	%	#	%		
Family Support for Job is:												
Very Supportive	282	64.4	144	61.3	138	68.0	198	69.2	49	54.4		
Somewhat Supportive	28	6.4	11	4.7	17	8.4	21	7.3	4	4.4		
Supportive	100	22.8	64	27.2	36	17.7	43	15.0	33	36.7		
Somewhat Unsupportive	10	2.3	8	3.4	2	1.0	10	3.5	1	1.1		
Very Unsupportive	1	0.2	1	0.4	-	-	-	-	1	1.1		
No Family	15	3.4	5	2.1	10	4.9	14	4.9	-	-		
Not Provided	1	0.2	1	0.4	-	-	-	-	1	1.1		
When at Home Form Ekati:												
Spend Time with Family	376	85.8	216	91.9	160	78.8	229	80.1	87	96.7		
Go out on the Land	194	44.3	106	45.1	88	43.3	126	44.1	51	56.7		
Play cards with Friends/Family	24	5.5	12	5.1	12	5.9	17	5.9	-	-		
Play Sports	104	23.7	47	20.0	57	28.1	76	26.6	23	25.6		
Study to Improve education	56	12.8	28	11.9	29	14.3	45	15.7	1	1.1		
Other	108	24.7	56	23.8	52	25.6	71	24.8	13	14.4		

Effect on Children	All NW	/T	Ethnic	Group			Communi	ty		
	emplo		Aborigi		Non-Aborig		Yellowknife		Small Local Comm	
	#	%	#	%	#	%	#	%	#	%
Have Children 0-4 Years	101	100.0	79	100.0	21	100.0	43	100.0	44	100.0
Positive Impact	12	11.9	7	8.9	5	23.8	12	27.9	-	-
Negative Impact	50	49.5	40	50.6	10	47.6	17	39.5	23	52.3
Positive & Negative	-	-	-	-	-	-	-	-	-	-
No Impact	39	38.6	32	40.5	7	33.3	14	32.6	21	47.7
Have Children 5-9 Years	140	100.0	97	100.0	43	100.0	69	100.0	51	100.0
Positive Impact	2	1.4	2	2.1	-	-	24	34.8	5	9.8
Negative Impact	34	24.3	17	17.5	17	39.5	29	42.0	28	54.9
Positive & Negative	59	42.1	40	41.2	19	44.2	2	2.9	-	-
No Impact	42	30.0	35	36.1	7	16.3	14	20.3	18	35.3
Not Provided	2	1.4	2	2.1	-	-	-	-	-	-
Have Children 10-14 Years	97	100.0	68	100.0	29	100.0	43	100.0	37	100.0
Positive Impact	28	28.9	21	30.9	7	24.1	14	32.6	6	16.2
Negative Impact	33	34.0	23	33.8	10	34.5	7	16.3	18	48.6
Positive & Negative	7	7.2	2	2.9	5	17.2	7	16.3	-	-
No Impact	29	29.9	22	32.4	7	24.1	14	32.6	13	100.0
Have Children 15-19 Years	71	100.0	40	100.0	31	100.0	41	100.0	21	100.0
Positive Impact	11	15.5	9	22.5	2	6.5	7	17.1	4	19.0
Negative Impact	26	36.6	14	35.0	12	38.7	12	29.3	6	28.6
Positive & Negative	5	7.0	-	-	5	16.1	2	4.9	-	] -
No Impact	28	39.4	16	40.0	12	38.7	19	46.3	9	42.9

The Future	All NWT er	nployees	Ethnic G	roup			Community				
			Aborigina	I	Non-Aboriginal		Yellowknife / Ndilo		Small local	communities	
	#	%	#	%	#	%	#	%	#	%	
All Employees	438	100.0	235	100.0	203	100.0	286	100.0	90	100.0	
Future Situation 5 Years from Now:											
A lot Better	247	56.4	142	60.4	105	51.7	162	56.6	49	54.4	
Somewhat Better	144	32.9	77	32.8	67	33.0	93	32.5	32	35.6	
The Same	43	9.8	12	5.1	31	15.3	31	10.8	5	5.6	
A Lot Worse	1	0.2	1	0.4	-	-	T	-	1	1.1	
Not Provided	2	0.5	2	0.9	-	-	-	-	2	2.2	
Employment at Ekati has Increased Desire for Education											
Strongly Agree	60	13.7	34	14.5	26	12.8	45	15.7	8	8.9	
Agree	289	66.0	167	71.1	122	60.1	186	65.0	67	74.4	
Disagree	88	20.1	33	14.0	55	27.1	55	19.2	14	15.6	
Strongly Disagree	1	0.2	1	0.4	-	-	-	-	1	1.1	
Employment at Ekati has Increased Desire for Training											
Strongly Agree	155	35.4	79	33.6	76	37.4	114	39.9	17	18.9	
Agree	214	48.9	114	48.5	100	49.3	126	44.1	54	60.0	
Disagree	65	14.8	41	17.4	24	11.8	43	15.0	17	18.9	
Strongly Disagree	5	1.1	3	1.3	2	1.0	2	0.7	3	3.3	
Employment at Ekati has Changed the Way I View Education											
Strongly Agree	46	10.5	27	11.5	19	9.4	33	11.5	8	8.9	
Agree	193	44.1	126	53.6	67	33.0	112	39.2	48	53.3	
Disagree	193	44.1	81	34.5	112	55.2	136	47.6	33	36.7	
Strongly Disagree	6	1.4	1	0.4	5	2.5	5	1.7	1	1.1	

## **End Notes**

<sup>&</sup>lt;sup>1</sup> BHP 1995 EIS, Volume IV page 4.164.

<sup>&</sup>lt;sup>2</sup> BHP 1995 EIS, Volume IV, pages 4.166 – 4.167.

<sup>&</sup>lt;sup>3</sup> Family Violence — Not a Private Problem. As posted at the RCMP Internet site, April 2000, http://www.rcmp.ca/html/fam-vi-e.htm.

<sup>&</sup>lt;sup>4</sup> BHP 1995 EIS, page 1.46.

<sup>&</sup>lt;sup>5</sup> BHP 1995 EIS, page 4.164.

<sup>&</sup>lt;sup>6</sup> 1995 Environmental Impact Statement prepared by BHP for the NWT Diamonds Project, now called Ekati Mine. Pages 4.164 to 4.167.

<sup>&</sup>lt;sup>7</sup> Ibid, page 4.167.

<sup>&</sup>lt;sup>8</sup> BHP 1995 EIS, Volume IV, page 4.168.

<sup>&</sup>lt;sup>9</sup> Second Report on the Health of Canadians, Health Canada, 1999, page ix. As cited in the NWT Health Status Report 1999, page 3.

<sup>&</sup>lt;sup>10</sup> Shaping Our Future: A Strategic Plan for Health and Wellness, page 29.

<sup>&</sup>lt;sup>11</sup> Report on the Health of Canadians, Health Canada, 1996. As cited in The NWT Health Status Report 1999, page 40.

<sup>&</sup>lt;sup>12</sup> Deanna L. Williamson and Janet E. Fast, "Poverty Status, Health Behaviours and Health: Implications for Social Assistance and Health Care Policy" in Canadian Public Policy Vol. XXIV, No. 1, March 1998, pp. 1-25. See also Working Group on Community Health Information Systems and S. Chevalier et al, Community Health Indicators: Definitions and Interpretations, Ottawa, Ontario: Canadian Institute for Health Info, June 1995, pp. 82 and 83. As cited in the NWT Health Status Report 1999, page 65.

<sup>&</sup>lt;sup>13</sup> BHP 1995 EIS, page 4.164

Shaping Our Future: A Strategic Plan for Health and Wellness, page 29. Citing GNWT Education, Culture and Employment.

<sup>&</sup>lt;sup>15</sup>Department of Health and Social Services, *The NWT Health Status Report 1999*, p. 51. The Report actually uses 5 or more drinks as a proxy for binge drinking.

<sup>&</sup>lt;sup>16</sup> Ibid, p. 58. In and of itself, being in a relationship (common law or married) has been found to be beneficial to well being. Thus, improvement in these relationships can only stand to have a positive effect on the well being of these employees, and their families.