

**FINAL  
REPORT ON**

**BASELINE SOCIO-ECONOMIC ENVIRONMENT  
FOR THE PROPOSED  
NICO PROJECT**

**Submitted to:**

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Appendix III	Tłıchq Businesses
Appendix IV	NWT 2006 Addictions Survey Results

# 1 INTRODUCTION

Fortune Minerals Limited (Fortune) is proposing to develop the NICO Cobalt-Gold-Bismuth-Copper Project (NICO Project) located approximately 160 kilometres (km) northwest of Yellowknife in the Wek'eezhii Settlement Area of the Northwest Territories (NWT). This section, or the Socio-Economic Baseline Report (baseline), was written to meet the requirements of the Terms of Reference (TOR) for the NICO Project Developer's Assessment Report (DAR) issued on 30 November 2009 by the Mackenzie Valley Environmental Impact Review Board (MVEIRB) (MVEIRB 2009a). The Review Board's *Socio-Economic Impact Assessment Guidelines* (MVEIRB 2007) were also reviewed to orient the material collected and analyzed for this baseline section in preparation for the socio-economic impact assessment (SEIA), which forms part of Section 16 (Subject of Note: Human Environment) of the DAR.

In the TOR, MVEIRB identified the human environment as requiring a high level of consideration in the scope of assessment. For the DAR, MVEIRB requires a detailed assessment of potential Project impacts that may affect the existing human environment, including the following:

- employment, training, and business opportunities from the NICO Project, and any plans to maximize opportunities for Wek'eezhii Settlement Area residents, Aboriginal peoples, and other Northerners;
- total economic activity to be generated by the development (e.g., employment and income generation including multiplier effects and taxes) and associated socio-economic impacts, with a focus on the distribution of beneficial and adverse impacts;
- social impacts of the NICO Project, focusing on community wellness and population health issues at regional, community, family, and individual levels;
- potential cultural impacts, including on physical heritage resources and traditional land use (including hunting, fishing, gathering, use of the traditional Idaa Trail, and any impacts on activities at Hislop Lake); and
- commitments and plans to monitor, evaluate, and manage impacts on the human environment.

To answer these questions pertaining to the human environment (i.e., communities) and to support the SEIA (Section 16), this report summarizes both publicly available and primary data to describe the socio-economic conditions in the study area. Socio-economic conditions (i.e., the human environment) are described as “valued components” (VCs) for this Project. VCs are features of the socio-economic setting considered as important to individuals, communities, and

groups or organizations. Fortune has been working with communities and responsible government authorities for several years to identify socio-economic VCs, and more formally since late 2008 when the first scoping sessions for this Project began. Project effects are measured against potential changes to these VCs as a result of the NICO Project.

The socio-economic VCs as they pertain to the TOR and where in this report they are described is shown in Table 1.1-1. Information concerning cultural impacts related to physical heritage resources, traditional land use and wildlife harvesting are provided under separate cover. A baseline report describing non-traditional land use is also available in this volume.

The socio-economic baseline report is organized as follows:

- Section 1.0 Introduction
- Section 2.0 Study Area
- Section 3.0 Methods
- Section 4.0 Results
  - 4.1 Regional Context
  - 4.2 Population
  - 4.3 Education
  - 4.4 Employment and Income
  - 4.5 Health and Wellness
  - 4.6 Culture and Language
- Section 5.0 Conclusion

**Table 1.1-1 Terms of Reference Concordance, Existing Human Environment**

	Section of TOR	Valued Socio-Economic Components	Baseline Report Section/ Reference
3.2.4 Describe the human environment, including:	population demographics in surrounding communities	population	4.2 Population
	existing infrastructure	services and infrastructure	Appendix II Services and Infrastructure and Golder 2011
	regional labour pool, skill levels and regional business capacity	employment and income	4.4.1 Employment and Educational Attainment; 4.4.2 Labour Force Characteristics; Appendix III Tlicho Businesses
	socio-economic conditions in potentially affected communities	all	all
	other economic activities	employment and income	4.1 Regional Context
Appendix A: Existing Environment Human Environment Describe the following:	Any other physical infrastructure present in the environmental assessment study area, including habitation, roads, buildings, quarries, power lines and industrial works.	employment and income; land use	Golder 2011
	Available information pertaining to the project area from land use planning in the Wek'eezhii Settlement Area.	land use	Golder 2011
	The availability and average training or skill levels of people in the local Wek'eezhii Settlement Area and the other Aboriginal and Northern resident regional labour pool.	education, employment and income	4.3 Education; 4.4 Employment and Income
	The local and regional business capacity available to support the NICO Project.	employment and income	4.4.2 Employment and Educational Attainment; 4.4.3 Labour Force Characteristics; Appendix III Tlicho Businesses
	Current socio-economic conditions and relevant trends in the potentially affected communities and the Wek'eezhii Settlement Area as a whole, using appropriate indicators of well-being and quality of life.	health and wellness	4.5 Health and Wellness; Appendix II Services and Infrastructure
	Other current economic activities in the environmental assessment study area.	employment and income	4.1 Regional Context

**Table 1.1-1 Terms of Reference Concordance, Existing Human Environment (continued)**

Section of TOR		Valued Socio-Economic Components	Baseline Report Section/ Reference
K3 Social Impacts The developer will describe potential impacts associated with the development on community wellness and population health issues such as:	population in- and out- migration	population	4.2.3 Population Change
	alcohol and drug access and use	health and wellness	4.5.2 Alcohol and Drug Use
	sexually-transmitted infection rates	health and wellness	4.5.5 Sexual Health
	crime rates	justice and safety	4.5.8 Crime and Safety
	access to child care	service and infrastructure	Appendix II Services and Infrastructure
	language retention and other key indicators of cultural maintenance	culture and language	4.6.3 Use of Aboriginal Languages
	education completion rates by level	education	4.3. Education; 4.4.2 Employment and Educational Attainment
	community cohesiveness and pride in cultural identity	culture and language	4.6 Culture and Language

Source: MVEIRB 2009a.



## **2 STUDY AREA**

### **2.1 PROJECT LOCATION**

The NICO Project is located in the Wek'eezhii Settlement Area of the NWT, and is surrounded by, but not within, Tłıchq lands (see Figure 2-1). Tenures held by Fortune prior to the Tłıchq Land Claim Agreement were excluded from the agreement. The NICO Project is approximately 50 km north of Whatì and 70 km south of Gamètì, the nearest communities. Other nearby communities include the Tłıchq capital, Behchokò, approximately 80 km south of the NICO Project site, and Wekweètì, located approximately 100 km northeast of the site. Yellowknife is the capital of the NWT and lies approximately 160 km southeast of the NICO Project site.

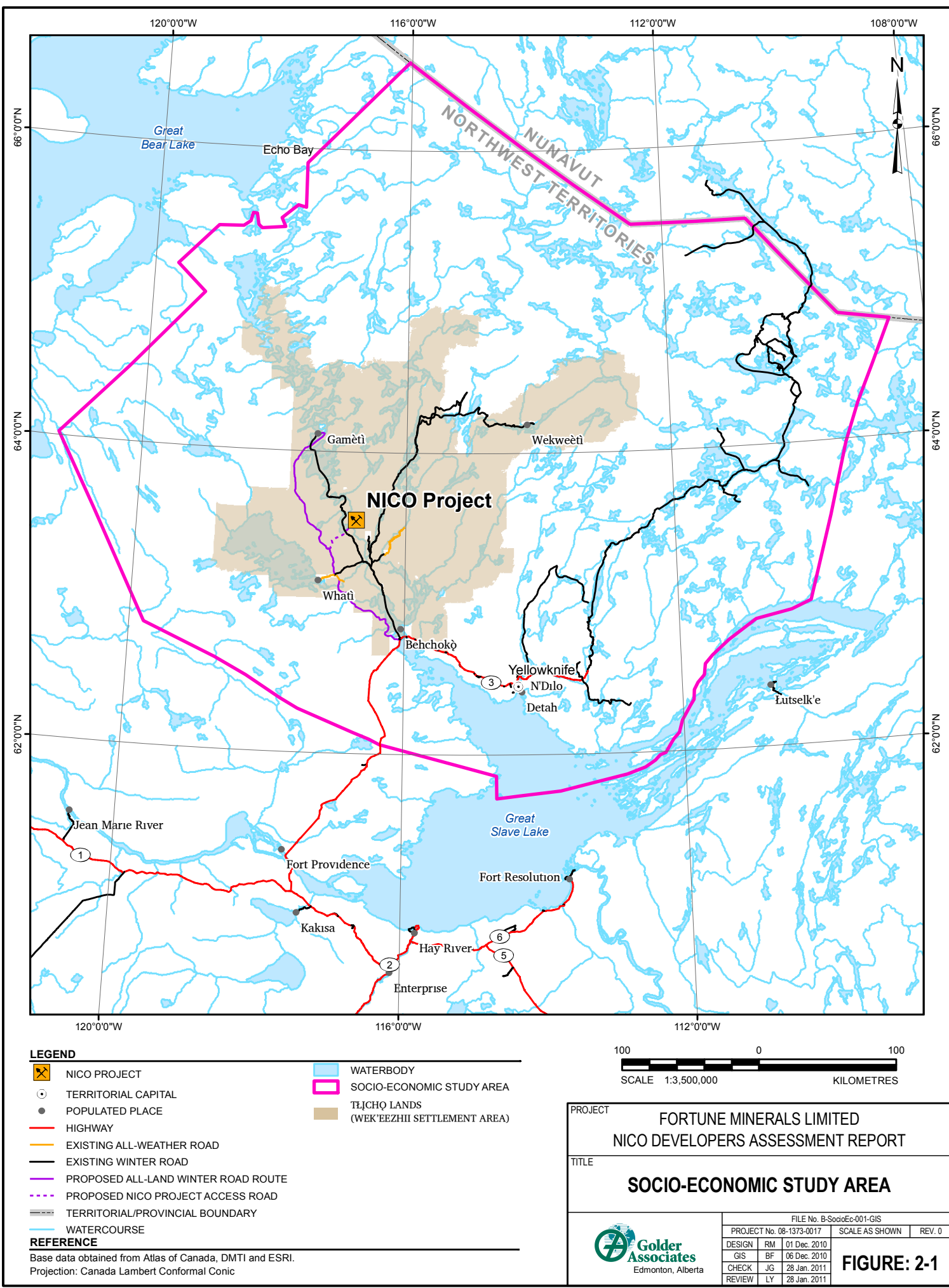
### **2.2 SOCIO-ECONOMIC ENVIRONMENTAL ASSESSMENT STUDY AREA**

The SEIA study area (study area) is the geographical region which may experience impacts from the NICO Project. As described in the TOR, the study area includes the following:














- the Tłıchq region (Wek'eezhii Settlement Area);
- the communities of Whatì, Gamètì, Wekweètì, and Behchokò;
- the City of Yellowknife; and
- Tłıchq and Métis communities resident of, or making traditional use of, any part of the environmental assessment study area.

Although not mentioned in the TOR, Fortune has chosen to include the Yellowknives Dene communities of Detah and N'Dilo in the socio-economic environmental assessment. This is due to their expressed wish to be considered for potential benefits from the NICO Project, particularly for possible jobs and contracting opportunities. In conformance with the TOR, these populations are collectively considered "potentially-affected communities". These communities and the individuals that live and work in them can contribute to the NICO Project workforce and may provide goods and services to the NICO Project.

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LEGEND

- |   |  |
|---|--|
|  NICO PROJECT                        |  WATERBODY                                    |
|  TERRITORIAL CAPITAL                 |  SOCIO-ECONOMIC STUDY AREA                    |
|  POPULATED PLACE                     |  TŁJCHŌ LANDS<br>(WEK'EEZHII SETTLEMENT AREA) |
|  HIGHWAY                             |  |
|  EXISTING ALL-WEATHER ROAD           |  |
|  EXISTING WINTER ROAD                |  |
|  PROPOSED ALL-LAND WINTER ROAD ROUTE |  |
|  PROPOSED NICO PROJECT ACCESS ROAD   |  |
|  TERRITORIAL/PROVINCIAL BOUNDARY     |  |
|  WATERCOURSE                         |  |

REFERENCE

Base data obtained from Atlas of Canada, DMTI and ESRI.  
Projection: Canada Lambert Conformal Conic




PROJECT	FORTUNE MINERALS LIMITED NICO DEVELOPERS ASSESSMENT REPORT			
	TITLE <b>SOCIO-ECONOMIC STUDY AREA</b>			
 Edmonton, Alberta		FILE No. B-SocioEco-001-GIS		
		PROJECT No. 08-1373-0017	SCALE AS SHOWN	REV. 0
		DESIGN RM 01 Dec. 2010		
		GIS BF 06 Dec. 2010		
		CHECK JG 28 Jan. 2011		
REVIEW LY 28 Jan. 2011				

FIGURE: 2-1

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### 3 METHODS

This report was prepared from publicly available information (e.g., Census data, government reports, on-line academic articles, and internet sites) and primary data collection (interviews and focus groups). Data was compiled and sorted according to VC, then detailed in this baseline report. The VCs were determined through discussions with Tłıchq representatives (i.e., key informant interviews) and a review of publicly available data on selected NWT social indicators. In addition, a summary of trends for 20 social indicators used in the NWT to monitor social conditions, prepared by the NWT Bureau of Statistics in 2003 was also used as a reference point for VCs (Appendix I).

One source of socio-economic data examined for the baseline report is the annual *Communities and Diamonds* report. These reports were generated beginning in 1999 (originally BHP Billiton only) and have been published annually ever since (current to 2008). The purpose of the annual *Communities and Diamonds* report is to monitor and identify socio-economic trends occurring in the communities of Behchokò, Gamètì, Whati, Wekweètì, Detah, N'Dilo, Łutselk'e, and Yellowknife to help the communities, governments, and the diamond mine companies, among others, to better plan and to develop mitigation measures for socio-economic impacts that may result from mine construction and operations. The report is required by GNWT socio-economic agreements (SEA), including those with BHP Billiton, Diavik, and De Beers.

In the 2003 *Communities and Diamonds* report, indicators began to be expressed as rates, whenever possible; for example, the annual number of property crimes per 1000 people. This ensures that any noted trend is not merely a function of annual population changes. Rates are compared across the NWT and with Canadian rates, if available. The “small” or “local” communities reported on include the communities listed above as well as Łutselk'e. Due to its size, Yellowknife is reported on separately.

The usefulness of these reports is that trends can be observed over time. The data is publicly available from government sources, including the NWT Bureau of Statistics Community Surveys (conducted every 5 years; the last one was in 2009) and the Statistics Canada Census of Population (conducted every 5 years; the last one was in 2006). While these reports are instructive in developing a social baseline report, aggregated local community data includes Łutselk'e, which lies outside of the NICO Project study area. In some cases, more recent reports or a higher level of detail on selected indicators or rates has been published elsewhere.

### 3.1 FIELD VISIT AND FOCUS GROUPS

Key informant interviews and focus group discussions were conducted during 2 field visits to potentially affected communities (Behchokò, Whati, Gamètì, Detah, N'Dilo, and Yellowknife) in February 2009 and July 2010, and on the phone between September 2008 and November 2010. Key informants cited in this report include the following:

- J. Carter, Yellowknives Dene First Nation, Detah;
- J. Drygeese, N'Dilo Youth Program Manager;
- L. Graf, Coordinator of Assessment and Evaluation, Department of Education, Culture and Employment, Government of the Northwest Territories (GNWT), Yellowknife;
- R. Hewlett, Manager of Health Services, Tłìchq Community Services Agency, Behchokò;
- B. Koslowski, Department of Education, Culture and Employment, GNWT, Yellowknife;
- R. Mazan, NWT Bureau of Statistics, Yellowknife;
- Sgt. D. McLeod, RCMP, Behchokò;
- R. Thomas, Alexis Arrowmaker School, Wekweètì; and
- G. van Tighem, City of Yellowknife.

Other key informants wished to remain anonymous. These included individuals from Behchokò, Whati, Gamètì, Detah, N'Dilo, and Yellowknife who were employed in community government, mining, trapping, education, or health, among others. The following focus groups were held:

- 4 female youth, Whati, 3 February 2009;
- 4 active trappers, Gamètì, 5 February 2009; and
- 1 female youth and 2 male youth, Gamètì, 5 February 2009.

In the Yellowknives Dene communities a local assistant was hired to coordinate interviews ahead of the field visit. Three local assistants/translators were also hired in each of the Tłìchq communities. Interviewees and focus group participants in the smaller communities of Whati, Gamètì, N'Dilo, and Detah were self-selected (i.e., volunteered to participate in the study). Other key informants in Behchokò and Yellowknife were selected by the interviewers based on their areas of expertise.

## **4 RESULTS**

### **4.1 REGIONAL CONTEXT**

#### **4.1.1 NWT Economy**

Natural resource development is important to the overall economy of the NWT. In addition to its contribution to the territory's Gross Domestic Product (GDP), particularly through mineral production and mine services, natural resource development is also having a positive impact on transportation, wholesaling, and construction industries. It adds thousands of jobs to the NWT's economy, has directly and indirectly raised incomes levels, and has led to a surge in residential construction, retail activity, and government spending.

One of the more common measures of economic activity and wealth creation is GDP. With the increased mining and oil and gas activity during the past 10 to 15 years, the GDP of the NWT has grown, from \$3.3 billion in 2003 to \$3.7 billion in 2008. The mining and oil and gas sectors accounted for \$1.4 billion of total GDP in 2003 and \$1.3 billion in 2008. During this period, diamond mining has been (and continues to be) the main natural resource extraction activity (GNWT Bureau of Statistics 2009a).

Economic growth in the NWT has slowed since 2004. Major capital developments occurred at NWT's 3 diamond mines, Ekati, Diavik, and Snap Lake Mines, in 2007 which had a positive effect on economic growth rates. The period between 2003 and 2007 represented a period of increasing mineral exploration and deposit appraisal activity. This began with \$53.6 million in spending in 2003 and peaked in 2007 with \$193 million in spending (NWT Bureau of Statistics 2010a).

The economic downturn in 2009 has since led to a decline in mineral exploration activity to \$29.5 million in 2009. In 2009, mining and oil and gas represented one-third (32%) of the total GDP, a 15% decline from 2008 (NWT Bureau of Statistics 2010b). Overall, GDP in the NWT declined by 5.9% in 2009, the fourth largest decline among all provinces and territories (NWT Bureau of Statistics 2010b).

Mining and oil and gas in the NWT have resulted in spin-off activities in other sectors such as construction, commercial services, transportation, and storage. Indirectly, this has led to growth in the number of registered corporations, including housing sector investments, hotel accommodation, and full-service restaurants.

Similar to mining, these other sectors were affected by the economic downturn in

2009. As measured by their impacts to GDP, support activities for mining and oil and gas (including exploration activity) fell by almost 32%, wholesale trade declined by 12%, and transportation and warehousing fell by 4% in 2009 (NWT Bureau of Statistics 2010b). These declines were slightly offset by some industries that expanded in that year including non-residential construction (138%), transportation engineering construction (26%) and public administration (2%) (NWT Bureau of Statistics 2010b). The construction of the \$180 million Deh Cho Bridge helped to keep investment high in the former 2 sectors.

The Conference Board of Canada (2010) predicts that a rebound in mineral exploration will propel total GDP forward by 4.8% in 2010 and 9.3% in 2011 (but still below the 2007 increase). Employment growth is expected to lag behind the recovery and the employment rate is projected to average 7% over the next 3 years, a significantly higher rate than before the recession. Spending in the construction sector is also expected to decline by 30% in 2010. One reason for the large decline is the completion of the \$565 million Diavik underground expansion (Conference Board of Canada 2010).

## **4.1.2 Potentially Affected Communities**

This section briefly describes the study area communities of Behchokò, Whatì, Gamètì, Wekweètì, Detah, N'Dilo, and Yellowknife, as well as the Métis and the Wek'èezhìi Settlement Area. Details are mainly limited to their respective population, location, government, services, and businesses, as appropriate. Further explanation and details on demographics, economy, business, employment, health, education, services, and other socio-economic VCs are provided in the sections that follow, as well as in Appendices II and III.

### **4.1.2.1 Behchokò**

Behchokò had 2026 people in 2009, 90% of whom identified themselves as Aboriginal (NWT Bureau of Statistics 2010c). As the largest of the Tłıchq communities, Behchokò is also the largest Dene community in Canada. The community is located 105 km northwest of Yellowknife on the Mackenzie Highway 3. Before the 2005 Tłıchq Agreement, Behchokò was known as Rae-Edzo (although the Tłıchq have always called it Behchokò). Behchokò is actually 2 communities, Rae and Edzo, which are located 15 km away from each other by road.

Rae was named after Dr. John Rae, who opened a Hudson's Bay Company post in 1882 at Old Fort Rae on Marion Lake (Tłıchq Government 2010a, internet site). Rae is the main community where most people live and services are located, including the central offices for the Tłıchq Government and the Tłıchq Community Services Agency (Photos 2.2-1, 2.2-2, and 2.2-3).



**Photo 2.2-1** Behchokò Municipal Government Building



**Photo 2.2-2** Tlįchq̓ Motel, Behchokò





**Photo 2.2-3 Marie Adele Bishop Health Centre , Behchokò**

Edzo was named after a historical Tłı̨chǫ leader who arranged peace between the Tłı̨chǫ and the Yellowknives Dene. Development of Edzo began in 1965 but many people chose to remain in Rae where hunting, fishing, and trapping activities were more accessible. Today Edzo is largely a residential community located alongside Highway 3 and about 15 km by road from Rae (Tłı̨chǫ Government 2010a, internet site). As a predominately Catholic community, St. Michael's Parish has served the Tłı̨chǫ region since 1859. The parish church was built in 1926 when the Roman Catholic mission relocated to Behchokò from Old Fort Rae (Tłı̨chǫ Government 2010a, internet site) (Photo 2.2-4).





**Photo 2.2-4 St. Michael's Roman Catholic Church, Behchokò**

While various residents are employed with Tłı̨chǫ companies, local government, and the diamond mines, some continue to engage in traditional activities for their livelihoods, often to supplement formal employment (Tłı̨chǫ Government 2010a, internet site). About 38% of residents hunted and fished in 2009 and 73% percent of households consumed country food for at least half of their diet in 2008 (NWT Bureau of Statistics 2009b, c). Almost 90% of residents speak an Aboriginal language, predominantly Tłı̨chǫ (NWT Bureau of Statistics 2009d).

Several Tłı̨chǫ businesses are located in Behchokò (Appendix III). These include 2 fuel service stations, a towing company, a bus company (for scheduled service to communities along the Mackenzie Highway), restaurant, hotel, dentist, and charter air services. The RCMP office in Behchokò had 8 officers as of July 2010 (D. McLeod, Behchokò RCMP, 2010, pers. comm.).

Behchokò has a community health centre with several staff, including 2 registered nurses, 1 nurse-in-charge, 3 nurse practitioners, 7 community health nurses, 2 public health nurses, 1 licensed practical nurse for long-term care, and other support staff (R. Hewlett, Tłìchq Community Services Agency, 2010, pers. comm.). It also had 2 ambulances with 7 staff as of July 2010. Behchokò also has a Friendship Centre (Photo 2.2-5), a Culture Centre, and a senior's care centre (Jimmy Erasmus Senior's Home has a total of 8 beds currently filled to capacity) (R. Hewlett, Tłìchq Community Services Agency, 2010, pers. comm.). In addition to its elementary school and high school, Behchokò has preschool and daycare programs.



Photo 2.2-5 Friendship Centre in Behchokò

#### 4.1.2.2 Whatì

The population of Whatì was 497 in 2009 (NWT Bureau of Statistics 2010c). Whatì changed its name from Lac La Martre on 1 January 1996. Early settlement began in 1793, when the North West Company set up a permanent trading post to supply other trading posts with food (Tłìchq Government 2010b, internet site). Whatì is located on Lac La Martre 103 km northwest of Yellowknife on a winter road that is open from about February to April. Daily scheduled flights from Yellowknife fly to Whatì year-round.

A total of 47% of the population hunted and fished and 78% of households reported eating country food for at least half of their diet in 2008 (NWT Bureau of Statistics 2009b, c). Ninety-three percent speak an Aboriginal language (e.g.,

Tłı̨chq̓) (NWT Bureau of Statistics 2009d).

Services include a K-12 school, a Catholic church, a RCMP detachment (2 officers), a grocery store, and a convenience store (Tłı̨chq̓ Government 2010b, internet site). Whatı̨ has a health centre with 2 registered nurses, 1 nurse-in-charge, and 2 support staff (R. Hewlett, Tłı̨chq̓ Community Services Agency, 2010, pers. comm.). There is no ambulance service. Community members work in the stores, in government and administration, public works (maintenance, construction, road clearing, etc.), in the daycare centre, or as nurses, among other positions (Photos 2.2-6, 2.2-7). Most interviewees in the baseline study said that they liked the quiet and traditional life that Whatı̨ offers.



**Photo 2.2-6** Focus Group with Elders, Whatı̨



**Photo 2.2-7**      **Community Office, Whati**

#### **4.1.2.3    Gamètì**

Gamètì is located 126 km northwest of Yellowknife along a winter road that is open from about February to April. The community is centered in a string of lakes that form a route between Great Slave Lake and Great Bear Lake. The population of Gamètì was 295 in 2009 (NWT Bureau of Statistics 2010c).

Gamètì was formerly known as Rae Lakes before the Tłìchq Agreement was signed. Although the site was long used as a temporary camp, families settled in the community in the 1970s and built an airstrip, school, and store (Tłìchq Government 2010c, internet site). Gamètì's airport (Photo 2.2-8) was built in 1991 just 3 km northeast of the community, the airport has a gravel runway and an air terminal building (GNWT Department of Transportation 2007). A scheduled air service runs daily except Saturdays.

Located in the traditional hunting area of the Tłìchq and Sahtu Dene people, fishing, hunting, and trapping are still an important part of the local economy (Tłìchq Government 2010c, internet site). In 2009, 38% of the population reported that they hunted and/or fished (NWT Bureau of Statistics 2009b). Perhaps even more telling, 73% of households in 2008 consumed country food for at least half of their diet and 93% speak an Aboriginal language (mainly Tłìchq) (NWT Bureau of Statistics 2009c, d).



**Photo 2.2-8**      **Gamètì Airport**

The community falls into the Behchokò -Whatì social services catchment area (Tłìchq Government 2010c, internet site). Services in Gamètì include a community store, hotel and restaurant, fire station, health centre, and school. Similar to most small communities in the NWT, power is generated by diesel (Photo 2.2-9). The Gamètì health centre has 2 full-time registered nurses and a community health representative, with programs in adult health, school children health, and pre-natal screening (R. Hewlett, Tłìchq Community Services Agency, 2010, pers. comm.). There are plans to establish an RCMP detachment by 2011. The RCMP detachment in Yellowknife responds to calls from Gamètì, and operates a rotation of 4 days in and 4 days out for 2 officers (D. McLeod, Behchokò RCMP, 2010, pers. comm.).





**Photo 2.2-9 Diesel Power Generator, Gamètì**

Most interviewees for the baseline study said they liked the quiet and traditional life that Gamètì offers. Some mentioned that many people trap, hunt, fish, and gather wood whenever they have the opportunity. A few interviewees suggested that there was a lack of recreational opportunities in the community, and that they had not had a recreation coordinator for several years. Inadequate social and recreational opportunities were identified as factors for why some youth were getting into trouble. A newer recreation centre is located in the community (Photo 2.2-10) and the community has recently hired a recreation coordinator.



**Photo 2.2-10**      **Ice Arena, Gamètì**

#### **4.1.2.4      Wekweètì**

In 2009, the population of Wekweètì was 140 (NWT Bureau of Statistics 2010c). Wekweètì was known as Snare Lake prior to 2005 (i.e., prior to the Tłıchǵ Agreement). It was founded in the 1960s when Tłıchǵ elder and former Chief Alexis Arrowmaker brought several families from Behchokǵ together who wanted to practice a more traditional lifestyle (Tłıchǵ Government 2010d, internet site). It is the smallest and most remote of the 4 Tłıchǵ communities, and is located approximately 195 km by air north of Yellowknife. The community is mainly accessible by scheduled flights from Yellowknife with the exception of a few weeks (generally during February to March) when the winter road is open. The populations of Whatı, Gamètì, and Wekweètì all tend to decrease in the winter when their respective winter roads are open.

Among the Tłıchǵ communities, engagement in hunting and/or fishing and other traditional activities is highest in Wekweètì, with 54% hunting and/or fishing in 2009 and 66% of households consuming country food for at least half of their diet in 2008 (NWT Bureau of Statistics 2009b, c).

Wekweètì has a small store, a hotel, and a few other services, similar to Whatı

and Gamètì (Photos 2.2-11, 2.2-12). There is no health centre. A lay dispenser<sup>1</sup> works on a part-time basis, a registered nurse stays in the community for 1 week every 5 to 6 weeks, and a doctor visits the community every 8 weeks (R. Hewlett, Tłıchq Community Services Agency, 2010, pers. comm.). The RCMP detachment in Yellowknife responds to calls from Wekweètì and, like Gamètì, has officers fly in/fly out on a regular basis (D. McLeod, Behchokò RCMP, 2010, pers. comm.). As with Gamètì, the Wekweètì school has students from kindergarten to grade 9, so those entering high school must move to Whatì, Behchokò, Yellowknife, or elsewhere. Most high school students chose either Whatì or Behchokò based on family ties in either community (R. Thomas, Alexis Arrowmaker School, 2009, pers. comm.).



**Photo 2.2-11**      **Snare Lake Lodge, Wekweètì**

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<sup>1</sup> A local resident who is certified to administer emergency first aid.





Photo 2.2-12 Sunrise over Snare Lake, Wekweètì

#### 4.1.2.5 Yellowknives Dene

The Yellowknives Dene First Nation, including the communities of N'Dilo and Detah, is among the 5 First Nations that make up the Akaitcho Territory Government (the other 4 members are Salt River, Smith's Landing, Deninu Kue, and Lutzek'e First Nations). Their traditional lands are found in and around Yellowknife. The Yellowknives Dene also run their own development corporation. The Det'on Cho Corporation, the economic arm of the Yellowknives Dene, currently has 20 business subsidiaries that provide goods and services to their local communities and the mining industry (Det'on Cho Corporation 2010, internet site).

##### **Detah**

In October 2010, the registered population of the Yellowknives Dene was 1363 (INAC 2010, internet site). Of these, approximately 260 live in Detah (NWT Bureau of Statistics 2010c). Detah is located 27 km from the east side of Yellowknife Bay and northern shore of Great Slave Lake (Photos 2.2-13, 2.2-14). It is reached by an all-weather road southeast from Yellowknife (the access road to Detah starts at about km 10 of the Ingraham Highway 4), or 6 km by winter road.



**Photo 2.2-13**      **Detah**



**Photo 2.2-14**      **Chief Drygeese Government Building and Conference Centre**

Community members predominantly speak the Weledeh dialect of Tłıchǫ and Chipewyan (60% of the population) (NWT Bureau of Statistics 2009d; Tsetta et al. 2005). Similar to the Tłıchǫ, country foods continue to contribute to family diets and livelihoods; in 2008, under half (43%) of Detah residents surveyed reported hunting and fishing activities and 70% consumed country food for at

least half of their diet (NWT Bureau of Statistics 2009b, c).

Detah has a new \$3.4 million community building: the Chief Drygeese Government Building and Conference Centre. This “state-of-the-art” 450-person meeting facility was completed in 2009 with financing through the Northwest Territories 2009-2010 Accelerated Capital Plan.

### **N’Dilo**

N’Dilo is located 4 km north of Yellowknife, on the north end of Latham Island. Its population in 2006 was 369 (NWT Bureau of Statistics 2010d). In 2008, 37% of residents hunted and/or fished, and 45% reported country food comprised more than half of their diet (NWT Bureau of Statistics 2010d). Like Detah, many N’Dilo residents (46%) speak an Aboriginal language (NWT Bureau of Statistics 2009d).

The road system in N’Dilo is mostly paved. The community is connected to the Yellowknife road network, which provides convenient access to the city’s transportation and communications infrastructure. N’Dilo residents can access several education, health, and social services in nearby Yellowknife. Its emergency services are delivered by the City of Yellowknife. Recreation facilities located within N’Dilo include a ball diamond, a drum dance centre/hall, and a gymnasium (GNWT Department of Municipal and Community Affairs 2004). Residents can access recreation facilities and services in nearby Yellowknife.

#### **4.1.2.6 Yellowknife**

The population of Yellowknife in 2009 was 19 711, comprising about 45% of the territory’s population (NWT Bureau of Statistics 2010c). Yellowknife is located on the north central shore of Great Slave Lake. Also known as the “Diamond Capital of North America” it is the political capital and administrative centre of the NWT.

Yellowknife was designated the capital of the NWT in 1967. It was named after the Yellowknives Dene who moved into the area in the early 1800s. The City lies within the traditional hunting area of the Tłıchǫ people, who re-occupied the land following the decline of the Yellowknife Chipewyans in the 1820s. Gold was discovered in 1896 at Yellowknife Bay by miners on their way to the Klondike, but due to the area’s difficult access, it was not until the 1930s with the discovery of pitchblende on Great Bear Lake and the start of aircraft travel in the North that further development took place (GNWT Department of Economic Development 2007).

Yellowknife Airport serves as the NWT's principal airport and as an important transshipment centre. In 2008, it was the 22<sup>nd</sup> busiest airport in Canada, with more traffic than Fort McMurray, St. Johns, Hamilton, or Regina (GNWT Department of Industry, Tourism and Investment 2009). Scheduled air passenger and cargo service to the Tłıchǫ communities are mainly provided by Air Tindi, with additional charter services provided by Tłıchǫ Air, among others (Photo 2.2-15). Several helicopter companies are also based in Yellowknife.



**Photo 2.2-15**      **Yellowknife Airport**

Yellowknife has no rail access, but does have a marine supply facility. The Northern Transportation Company Limited barges large volumes of fuel to Yellowknife from Hay River. The road system within Yellowknife is paved. A number of all-weather roads provide access between Yellowknife and other communities. Highway 3 links Fort Providence with Behchokǫ and Yellowknife. Funds received under the Canada Strategic Infrastructure Fund were used to upgrade the highway between Behchokǫ and Yellowknife, the section of the road that has the highest traffic volumes within the Territory (Government of Canada 2003). Highway 4, known as the Ingram Trail, extends 70 km east from Yellowknife and provides access to recreational areas and several communities.

Yellowknife plays an important role as a driver for the NWT economy, since about half of the territorial businesses and almost half of its population lives in the capital city (GNWT Department of Industry, Tourism and Investment 2009). Several mining companies have offices in Yellowknife; these include the



diamond mining companies of BHP Billiton, Rio Tinto, and De Beers Canada Inc. Yellowknife also has diamond cutting and polishing facilities, although only one was still operating in 2010. In addition, plans for a mega pipeline project in the Mackenzie Valley continue to move forward.

Manufacturing is not yet a major economic driver in the NWT overall. Where there is manufacturing, it occurs in Yellowknife. In 2006, of the 360 territorial residents employed in manufacturing such as metal fabrication, printing, and building products, 240 were based in Yellowknife (GNWT Department of Industry, Tourism and Investment 2009).

Yellowknife is also the central base for the territory's government and social services, including education, health, recreation, and cultural activities (Photo 2.2-16). Yellowknife houses the territorial legislature and a number of territorial and federal departments. In 2008, the City hosted the Arctic Winter Games. During the summer months, Yellowknife is also home to the Northern Arts and Cultural Centre Festival of Stories, Aboriginal Day celebrations, Summer Solstice Festival, Folk on the Rocks, and the Yellowknife Arts Festival. These festivals celebrate traditional arts, music, games, and food. The South Slave Friendship Festival also takes place in the summer in Fort Smith. During the cold winter months, the Caribou Carnival takes place in Yellowknife, and the Ookpik Carnival in Hay River.



**Photo 2.2-16** Carving and Engraved Rock, Yellowknife's Old Town

#### **4.1.2.7 Métis**

There are 2 Métis associations in the NWT, the Northwest Territory Métis Nation and the North Slave Métis Association (NSMA). The Northwest Territory Métis Nation is comprised of the indigenous Métis originally from the South Slave in the NWT. Their membership is politically represented by the Fort Resolution Métis Council, the Fort Smith Métis Council, the Hay River Métis Government Council, and the North Arm Métis Council of Yellowknife (Northwest Territory Métis Nation 2007, internet site). Members of the Northwest Territory Métis Nation live mainly in the communities of Fort Smith, Hay River, Fort Resolution, and Yellowknife (Northwest Territory Métis Nation 2007, internet site).

The NSMA was formed in 1996 to strengthen the cultural and political identity of the indigenous Métis of the Northern Great Slave area (MTS 2009). The NSMA represents the direct descendents of Métis who used and occupied land in the North Slave Region before 1921. The NSMA is a non-profit organization whose objectives include the following:

- to negotiate and implement a land and resources agreement founded on the principles of self-government; and
- to promote the educational, economic, social and cultural development of the members of the North Slave Region and the Treaty 11 area (MTS 2009).

The Northwest Territory Métis Nation and the NSMA each have included the Tłı̨chǫ region area in their region of land claim interest. While the federal government has recognized the land claim of the Northwest Territory Métis Nation, and are currently negotiating an Agreement-in-Principle (AIP) on land and resource matters, they have not yet accepted the NSMA claim.

#### **4.1.2.8 Wek'èezhìi Settlement Area**

The Wek'èezhìi Settlement Area is the management area of the Tłı̨chǫ settlement area, traditionally defined as the Mowhi Gogha De Niitlee area. The boundaries of the region are outlined in the Tłı̨chǫ Agreement, signed by the Government of Canada, the Government of the Northwest Territories and the Dogrib Treaty 11 Council on 25 August 2005 in Behchokò, NWT. It is the first ever combined land claim and self-government agreement in the NWT. The 4 communities of the Wek'èezhìi region are Behchokò, Whatì, Gamètì, and Wekweètì.

#### **4.1.3 Tłı̨chǫ Government**

The Dogrib Treaty 11 Council first submitted their Tłı̨chǫ regional claim in 1992.

In 2002, the Dogrib chose the word “Tłıchq” to identify themselves. When the Tłıchq Agreement was signed, the Tłıchq became the sole surface and subsurface owners of 39 000 square kilometres (km<sup>2</sup>) of mineral rich land (Tłıchq Government 2010e, internet site). Except of the excluded areas such as the Fortune claim block.

The Tłıchq pass and enforce their own laws, enter into contracts, hold resources, receive tax revenues, and manage rights and benefits for the Tłıchq citizens. They also levy resource royalties and control hunting, fishing, and industrial development. As part of their Agreement, the Tłıchq also receive annual capital transfer payments which will total about \$152 million over 15 years (i.e., 2005 to 2020), and receive a share of mineral royalties received by government annually, these royalty payments are 10.429% of the first \$2.0 million of mineral royalties and 2.086% of any additional mineral royalties received by government in any given calendar year (Tłıchq Government 2003).

The head office for the Tłıchq government is located in Behchokò, with 6 government departments:

- Community Justice;
- Finance;
- Human Resources;
- Lands Protection;
- Language and Culture; and
- Victim Services.

The *Tłıchq Community Government Act* (GNWT 2004a) established the 4 community governments of Behchokò, Whatì, Gamètì, and Wekweètì and described their boundaries. The Act covers the composition and role of the community council, eligibility to vote, and the duties of the chief. The community governments are responsible for community planning, public works (e.g., roads, schools, and health facilities), community improvements, public utilities (e.g., water quality, water delivery, and sewage services), emergency response planning, fire protection, recreation, and other services such as bylaw enforcement. The 4 community governments administer all lands within their respective community and regulate land use and development through their community plan, zoning by-law, leasing, and development permit process. Chiefs and Council are elected in each community every 4 years (Tłıchq Government 2009f, internet site). The NWT and Tłıchq governments have been jointly developing an Intergovernmental Relations Protocol to help guide relations between the respective governments (GNWT Strategic Planning Branch 2006a;

b).

#### **4.1.3.1 Tłìchq Community Services Agency**

The Tłìchq Community Services Agency (TCSA), established on 4 August 2005, delivers public programs and services (e.g., education, health, child, and family programs). It receives its funding from the Government of the NWT for selected programs and services of the Tłìchq government (Gibson et al. 2008). The NWT health, social services, and housing budget in 2009 was \$423 million, of which \$1.475 million was allocated to the TCSA (GNWT Department of Finance 2009). The Tłìchq *Community Services Agency Act* (GNWT 2005a) outlines the establishment and organization of the TCSA, its powers, duties, functions, and issues relating to financial matters, inspection, administration, and dissolution. The TCSA Board consists of 5 members, a chairperson and a member from each of the 4 Tłìchq communities. Previous organizations that delivered programs and services in the Tłìchq communities included the Dogrib Community Services Board (1997-2005), the Dogrib Divisional Board of Education (1989-1997), and the Rae-Edzo School Society (1967-1989).

The TCSA manages the following facilities in each community:

- Behchokò
  - Elizabeth Mackenzie Elementary School
  - Jimmy Erasmus Seniors Home
  - Mary Adele Bishop Health Centre
  - Tłìchq Healing Path Wellness Centre
  - Chief Jimmy Bruneau Regional High School
- Whatì
  - Mezi Community School
  - Tłìchq Health Path Wellness Centre
  - Lac La Martre Health Centre
- Gamètì
  - Jean Wetrade Gamètì K-9 school in Gamètì
  - Rae Lakes Health Centre in Gamètì
- Wekweètì



- 
- Alexis Arrowmaker School
  - Dechi Laoti Health Centre

The Tłıchq Government has funded the TCSA for program initiatives identified as Tłıchq priorities. These include a post secondary scholarship program, a variety of short term cultural projects, early childhood programs, and some community health and social programs created by federal government initiatives targeted for Aboriginal communities (TCSA 2006).

## **4.2 POPULATION**

With the exception of Wekweètì (0.5% decline), Tłıchq communities have been experiencing modest growth every year since 1996 to 2009 (about 1% annual growth). Behchokò is the largest of the Tłıchq communities with just over 2000 people, or about 69% of the entire Tłıchq population (Table 4.2-1). The average annual growth rate in Behchokò was 1.1% between the years 1996 to 2009, with the highest growth experienced in the mid-2000s (e.g., the average annual growth rate was 2.3% between 2004 and 2006). This increase may have resulted from several families moving from outlying communities to Behchokò for employment opportunities with the Tłıchq government (SAEE 2007), as well as for mining-related jobs.

In contrast, the populations of Yellowknife and the NWT have fluctuated with low growth between 1998 and 2001, a possible indication of out-migration, and more recent higher growth between 2006 and 2008, possibly due to in-migration. The Tłıchq communities are growing slightly more rapidly than Yellowknife and the NWT overall. Between 1996 and 2009, most (97%) of the net change in the total population of the NWT was due to net increases in the Tłıchq population (21%) and Yellowknife (86%). Most of this growth occurred prior to 2005. Overall population in the NWT and communities actually declined from 2008 to 2009, likely due to out-migration as a result of the economic downturn.

**Table 4.2-1 Population of Study Area Communities, 1996 to 2009**

Year	Population							
	Tłıchq	Behchokǝ	Whatı	Gamètı	Wekweetı	Detah	Yellowknife	NWT
1996	2605	1762	434	263	146	194	18 258	41 748
1997	2601	1757	436	273	135	199	18 306	41 635
1998	2638	1760	450	290	138	198	17 671	40 816
1999	2650	1760	467	285	138	201	17 483	40 654
2000	2684	1770	483	289	142	204	17 415	40 499
2001	2710	1785	492	290	138	214	17 772	40 844
2002	2758	1819	488	293	142	219	18 409	41 665
2003	2801	1870	479	300	151	214	19 210	42 561
2004	2826	1882	483	288	139	237	19 622	43 301
2005	2887	1943	488	292	140	240	19 644	43 399
2006	2889	1977	479	291	142	255	19 522	43 198
2007	2937	2001	492	295	140	257	19 674	43 545
2008	3025	2030	499	291	139	257	19 910	43 720
2009	2955	2026	497	295	137	257	19 711	43 439
Net Change	350	264	63	32	-9	63	1453	1691
Average Annual Change (%)	1.0	1.1	1.0	0.9	-0.5	2.2	0.6	0.3

Note: The population of N'Dilo is included in the population of Yellowknife.

Sources: 1996-2002: GNWT 2008a; 2003-2004: NWT Bureau of Statistics 2008a; 2005-2009: NWT Bureau of Statistics 2010c.

Detah has also experienced population growth in recent years, at a higher rate than the Tłıchǫ, with an average annual rate of 2.2%. Additional members of the Yellowknives Dene living in N'Dilo (369 in 2006) are counted in the total population of Yellowknife. The remaining population of the Yellowknives Dene live outside of N'Dilo and Detah, particularly in Yellowknife (INAC 2010, internet site).

The trend toward a declining population is of some concern to the GNWT. An increasing population provides growth opportunities for NWT businesses and spreads the fixed costs of power generation, transportation, and other key economic drivers over a larger base, which can lower overall costs for NWT residents. The high cost of living in the NWT is a major deterrent to attracting new residents (GNWT 2010; NWT Bureau of Statistics 2009e). Other factors include the weather (cold and long winters) and lack of diverse employment opportunities. As indicated below in the subsection on population change, the high cost of living in the NWT is a major reason why some choose to leave. To offset this trend, the GNWT 2010-2011 budget included \$1.3 million to promote the territory as a preferred place to visit, live, and work (GNWT 2010).

#### **4.2.1 Aboriginal Population**

Most residents of the Tłıchǫ communities and Detah (over 90%) self-identify as Aboriginal (NWT Bureau of Statistics 2010c). Yellowknife is the only study area community with a higher proportion of non-Aboriginals (77%) than Aboriginals (23%) in the population (NWT Bureau of Statistics 2010c). About half of NWT's population is Aboriginal (21 889 in 2009) (NWT Bureau of Statistics 2010c). There is no publicly available data regarding the Métis population.

#### **4.2.2 Age and Gender**

The 2006 and 2009 populations of the study area communities by age and gender are shown in Table 4.2-2. During this period, age and gender distribution changed very little. Still, in Behchokǫ and the Tłıchǫ region overall, the 15 to 24 age group increased its share of the population by about 5% (from 12% to 19% in Behchokǫ and from 14% to 18% in the Tłıchǫ region).

**Table 4.2-2 Populations by Age and Gender, 2006 and 2009**

Population Segment	Tłıchǵ		Behchokǵ		Whatı		Gamètı		Wekweetı		Detah		Yellowknife		NWT	
	2006	2009	2006	2009	2006	2009	2006	2009	2006	2009	2006	2009	2006	2009	2006	2009
<b>Total Population</b>	<b>2775</b>	<b>2955</b>	<b>1895</b>	<b>2026</b>	<b>460</b>	<b>497</b>	<b>285</b>	<b>295</b>	<b>135</b>	<b>137</b>	<b>245</b>	<b>257</b>	<b>18 700</b>	<b>19 711</b>	<b>41 460</b>	<b>43 439</b>
males	1440	1560	985	1069	240	271	145	153	70	67	120	128	9510	10 094	21 225	22 476
females	1335	1395	915	957	215	226	140	142	65	70	130	129	9185	9617	20 240	20 963
age 0-4	315	316	220	227	50	57	30	19	15	13	30	13	1360	1544	3225	3352
age 5-9	310	283	215	199	50	33	25	40	20	11	30	37	1195	1176	3090	3039
age 10-14	280	305	190	216	40	49	40	21	10	19	30	27	1465	1224	3600	3053
age 15-24	395	536	235	375	95	99	45	44	20	18	35	36	2990	3138	6720	7234
age 25-44	850	920	570	620	145	151	90	101	45	48	55	63	6660	6937	13 350	13 900
age 45-59	325	354	225	240	55	60	30	35	15	19	45	56	4095	4437	8255	9033
age 60 and over	245	232	150	149	45	48	30	35	20	x	25	25	940	1255	3220	3828

X = data suppressed.

Sources: Statistics Canada 2007a-f; NWT Bureau of Statistics 2010c.

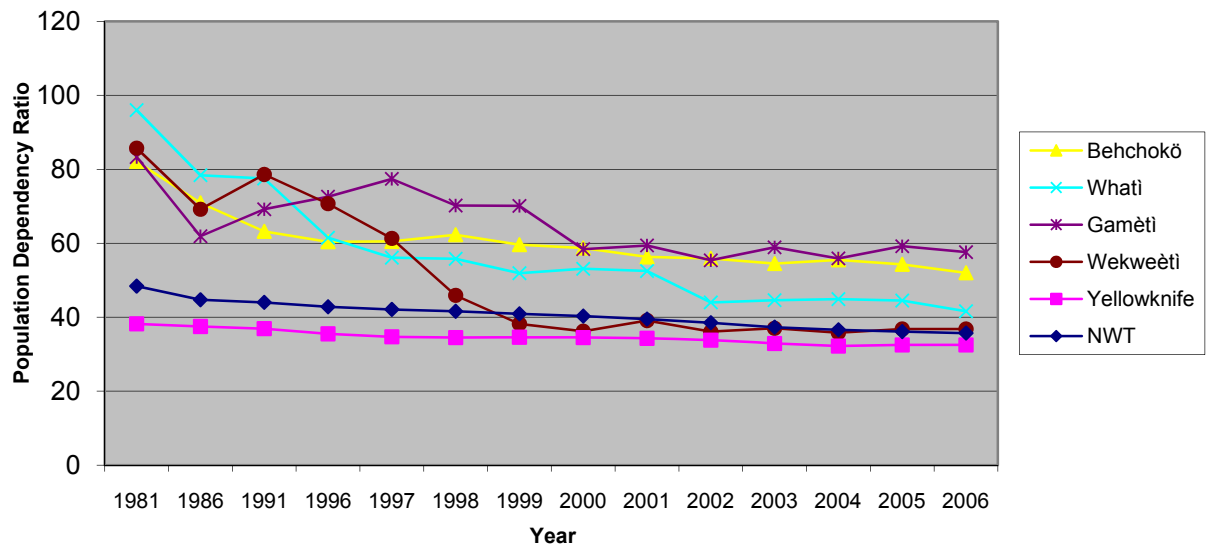
The NWT has a relatively young population. In 2010, 21.8% of its population was 0-14 years of age, compared to 16.5% for all of Canada; although Nunavut's share of population under 15 years of age was even higher at 31.5%, Alberta's share, for example, was 18.3% in 2010 (Statistics Canada 2010). In contrast, only 5.4% of the population of the NWT was 65 years of age or older in 2010, compared to 14.1% for Canada overall (Statistics Canada 2010).

The smaller populations of Gamètì and Wekwèètì did not change enough between 2001 and 2006 to adequately assess whether particular segments of the population were growing faster than others. In Behchokò, the fastest growing segments between 2001 and 2006 were those aged 15 to 44, whereas in Whatì, those aged 25 to 64 were the fastest growing segments of the population (Statistics Canada 2002a-d; 2007a-d).

Several interviewees from Whatì and Gamètì expressed concern about what they saw as a declining elder population. This was not confirmed by the population numbers shown in Table 4.2-2. There was little change in numbers of those aged 60 years or more in Whatì and Gamètì from 2006 to 2009. Likewise, the population 60 years and over is a relatively small component of the NWT overall, but growing slightly from 7.8% in 2006 to 8.8% in 2009. In contrast, interviewees from Whatì and Gamètì commented that the size of the youth population seems stable, although families do not appear to be having as many children as before.

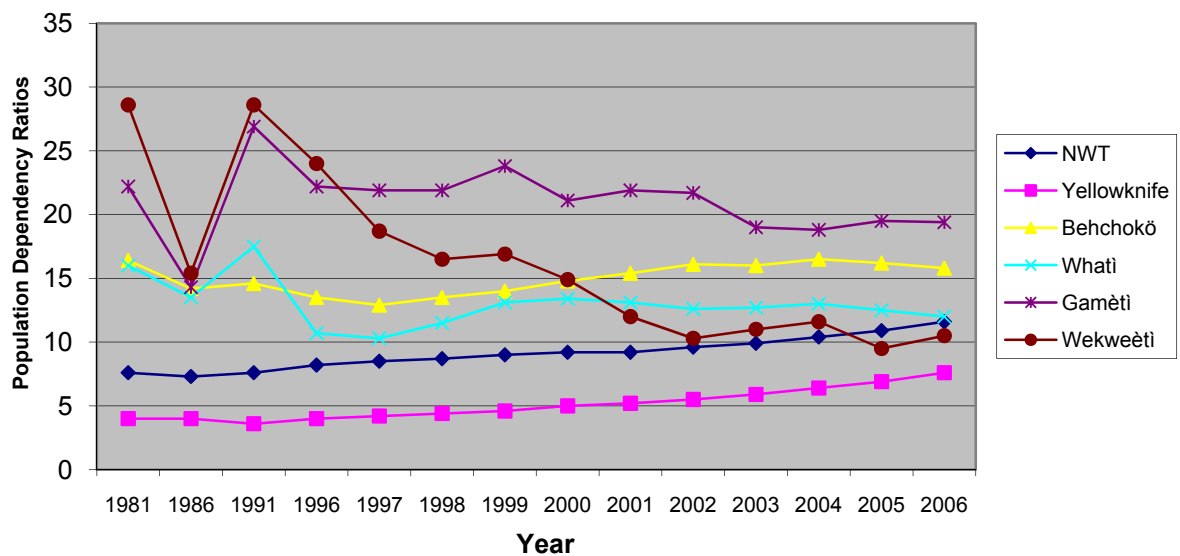
#### **4.2.2.1 Population Dependency Ratios**

Population dependency ratios are a measure of the portion of a population that is comprised of dependents (i.e., those too young or too old to work). A high dependency ratio means fewer people are working and paying taxes. The dependency ratio is equal to the number of individuals aged below 15 or above 60 divided by the number of individuals aged 15 to 60, expressed as a percentage. Figures 4.2-1 and 4.2-2 show the population dependency ratios for Yellowknife, Detah, the Tłìchq communities, and the NWT between 1981 and 2006. These figures show that population dependency ratios are slowly declining in the Tłìchq communities, although most change occurred prior to 2000. In contrast, for Yellowknife and the NWT overall, the trend is relatively stable for younger people, and slightly increasing for older people. For the Tłìchq communities, this means that at present fewer dependents are being supported by the working age population (age 15 to 60).



**Figure 4.2-1 Population Dependency Ratios (Under Than 15 Years of Age)**

Source: NWT Bureau of Statistics 2007a.



**Figure 4.2-2 Population Dependency Ratios (Over 60 Years of Age)**

Source: NWT Bureau of Statistics 2007a.

### **4.2.3 Population Change**

Population change is a function of birth, death, and migration rates (both in and out of an area). Community mobility may indicate structural change in a population and gives clues about potential service and institutional needs (Adger 2000). For example, communities that experience high in-migration of temporary workers may want to explore ways to encourage more permanent jobs and housing; communities that experience low in-migration and an aging population may see a need for jobs and services that appeal to couples wanting to settle down and raise a family.

With the possible exception of Yellowknife, most communities in the study area are growing at a relatively stable rate. Overall, the birth rate for the NWT remains much higher than the Canadian average as it has for many years, for example, in 2008 it was 16.0 births for NWT compared to 11.0 births for Canada per 1000 residents (NWT Bureau of Statistics 2010e). While higher than in Canada, the birth rate in the NWT population is dropping; it had 21.1 births per 1000 residents in 1995. At the same time, the death rate for the NWT is increasing slightly, from 3.1 deaths in 1995 to 4.5 deaths in 2008 per 1000 residents (NWT Bureau of Statistics 2010e). This may be a reflection of the NWT's aging population as well as other factors. Nonetheless, NWT still has a younger population than the rest of the Canada.

Births, deaths, and migration patterns are important components of population change, with both short- and long-term consequences for society. For example, population change and size affects funding and demand for housing, health care, education, and other services and infrastructure. The survival of small communities depends on a certain degree of population stability and/or growth. When considered alongside other data (e.g., cost of living, availability and capacity of health and education services, employment patterns), this information can help determine whether community populations and demographics are changing, and if so, what some of the factors driving these changes may be.

One indicator of population mobility is the percentage of people 5 years and older who did not live in the same community 5 years earlier. Most of the population movement occurred in Yellowknife and the rest of the NWT (Table 4.2-3).

**Table 4.2-3 Population Mobility, 1986 to 2006**

Year	People 5 Years and Older who did not Live in the Same Community 5 Years Earlier															
	Tłı̨ch̨		Behchok̨		Whatı̨		Gamètı̨		Wekweetı̨		Detah		Yellowknife		NWT	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1986	-	-	-	9	-	7	-	10	-	26	-	4	-	44	-	35
1991	-	-	-	14	-	9	-	13	-	9	-	7	-	47	-	35
1996	241	11	159	11	38	10	24	11	20	17	26	15	5495	35	-	29
2001	223	11	132	10	56	14	20	8	15	13	10	6	4624	30	8554	25
2006	280	11	205	12	40	10	35	14	0	0	40	19	4985	29	9090	24

- = data not available

Note: Data was not available for N'Dilo.

Sources: 1986-1996: NWT Bureau of Statistics 2007a; 2001-2006: NWT Bureau of Statistics 2007a, Statistics Canada 2007a-f.

Between 2001 to 2006, about half (50%) of the NWT population moved (i.e., an intra-territorial, intra-provincial, inter-provincial, and/or international move). In the same period, 7085 people moved into the NWT, while 7055 people left the NWT (Statistics Canada 2007a). The resulting net gain of only 30 people shows a relatively stable if not static population. It is also a positive contrast to the net loss of 3200 people experienced between 1996 and 2001 (Statistics Canada 2002a; 2007a; and 2007, internet site).

Out-migration from the NWT and Yellowknife is still much higher compared to Detah and the Tłı̨ch̨ communities, which is to be expected given that small and/or remote Aboriginal communities tend to value family and kinship ties more than economic gain; the same is not the case for much of Yellowknife's population, who are largely non-Aboriginal, many whom have moved to Yellowknife for jobs. The NWT lost over 2000 people to out-migration from 1992 to 2006 (Statistics Canada 2007, internet site). This high movement from Yellowknife and the NWT, more generally, was likely a result of people in search of employment and other opportunities elsewhere. It also suggests that many people are not choosing to stay and make a life in the NWT.

Some interviewees felt that there was a trend to people staying longer in the NWT. For example, "The labour market has changed. People would leave after a couple of years of making money since Yellowknife was felt to be too expensive. There are more seniors now; retirees are increasing because of better medical services and community benefits" (G. van Tighem, City of Yellowknife, 2010, pers. comm.).

Total deaths and births between 2003 and 2006 for the study area are shown in Table 4.2-4. The data provide an estimate of how much natural growth and



migration may affect total population change among the Tłıchǫ, Yellowknife, and the NWT overall. The difference between the net change due to births and deaths and the total population change indicates whether migration may be playing a role in a community's population growth or decline.

Among the Tłıchǫ, between 2003 and 2006, net change due to births and deaths was positive (i.e., more births than deaths) and less than the total population change. The year 2005 was the only one in which the total population change exceeded the natural growth in the region, most likely due to returnees in search of job opportunities.

In 2006, while natural growth was positive Yellowknife experienced a small decline in population from the previous year (19 522 in 2006 compared to 19 644 in 2005). Yellowknife's total population change between 2003 and 2006 (Table 4.2-1) was also lower than the net change due to births and deaths alone (Table 4.2-4), or an increase of 312 compared to 1015 people. Showing even greater movement than the Tłıchǫ communities, net out-migration has occurred in Yellowknife and the NWT for every year from 2004 until 2009. In 2008, the net migration rate was 879 people, showing a continued trend of people leaving the NWT overall (NWT Bureau of Statistics 2009a).

**Table 4.2-4 Natural Population Change, 2003 to 2006**

Year	Total Deaths			Total Births			Net Change (and Net Change of Total Population)		
	Tłıchǵ	Yellowknife	NWT	Tłıchǵ	Yellowknife	NWT	Tłıchǵ	Yellowknife	NWT
2003	10	60	202	63	305	701	53(43)	245(801)	499(896)
2004	13	49	153	66	265	698	53(25)	216(412)	545(740)
2005	12	35	148	62	316	712	50(61)	281(22)	564(98)
2006	17	51	182	50	324	687	33(2)	273(-122)	505(-201)
<b>2003 to 2006</b>	<b>52</b>	<b>195</b>	<b>685</b>	<b>241</b>	<b>1210</b>	<b>2798</b>	<b>46(88)</b>	<b>1015(312)</b>	<b>2113(637)</b>

Source: NWT Bureau of Statistics 2010c.

Several factors lie behind why more people are leaving the NWT than are arriving. These include work opportunities and other reasons (e.g., education, family commitments) along with the relatively high cost of living in the territory. A recent survey of 1705 NWT diamond mine employees found that the main reason for wanting to leave the NWT was the cost of living (64%) (NWT Bureau of Statistics 2009e). The cost of living and household spending as per the Consumer Price Index are briefly described later in this report and indicate much higher costs of living in the NWT than in the rest of Canada (Section 4.4.5). For those who were not from the NWT, other common reasons from the survey included wanting to be closer to family (39%) and being tired of the weather (38%). For those from the NWT, the second most common reason for wanting to move after cost of living (59%) was “it was time for a change” (46%). Of those who were already living in the NWT, 45% said that they were likely or very likely to consider a move from the NWT if the opportunity arose in the next year. Respondents originally from the NWT were less likely to consider leaving (36%, or 196 out of 539 respondents) than NWT residents who had moved to the territory (55%, or 247 out of 449 respondents).

Survey responses to questions of leaving the NWT also varied by gender, education, the length of time lived in their current community, and the community size. Females (50%) were somewhat more likely than males (43%) to want to move and 63% of respondents with a University degree would consider moving. Those who had lived in the NWT under 5 years (54%) were more likely to want to leave. Persons from smaller NWT communities (up to 4000 people) were less likely to consider leaving the NWT (32%), compared to those living in larger communities (52%). High costs of housing and utilities were major concerns for non-NWT residents (91% and 83% respectively) when asked if considering a permanent move to the NWT.

#### **4.2.4 Population Projections**

Table 4.2-5 shows GNWT population projections for the NWT, Yellowknife, Detah, and the Tłıchq communities between 2014 and 2024. The study area population is predicted to be about 27 755 people by 2024, an increase of about 5109 people (22.5%) from 2009 (NWT Bureau of Statistics 2010c), with most of the growth occurring in Yellowknife. Population projections are based on historical cohort data for the past 10 to 15 years and do not include projections related to planned development (e.g., mining) (R. Mazan, NWT Bureau of Statistics 2010, pers. comm.).

**Table 4.2-5 Population Projections, 2014 to 2024**

Year	Population Projection							
	Tłıchq	Behchokò	Whatì	Gamètì	Wekweètì	Detah	Yellowknife	NWT
2014	3058	2107	512	299	140	260	21 406	45 662
2019	3146	2177	519	306	144	264	23 047	47 724
2024	3221	2239	531	308	143	264	24 534	49 430
Projected Average Annual Change 2014-2024 (%)	0.5	0.6	0.4	0.3	0.2	0.1	1.5	0.8
Average Annual Change 1996-2009 (%)	1.0	1.1	1.0	0.9	-0.5	2.2	0.6	0.3

Source: NWT Bureau of Statistics 2010c.

## **4.3 EDUCATION**

Residents of potentially affected communities have access to elementary, secondary, and post-secondary education and training that will provide them with the skills and knowledge necessary to participate in the wage economy. This also includes the use and development of Aboriginal language skills and cultural knowledge.

For this report, indicators used to measure changes to education and training opportunities are:

- availability of elementary and secondary schools;
- availability of culture and language programs (Appendix II);
- number of Aboriginal teachers (Appendix II);
- school enrolment and high school graduation rates;
- educational attainment rates (level of schooling completed);
- student financial assistance (Appendix II);
- basic education programs (Appendix II); and
- availability of, enrolment in, and completion of post-secondary and other training programs (e.g., mine training).

These indicators, when considered with social and economic factors identified through key informant interviews and other data, may be used to identify both challenges and opportunities on the delivery of education and training in the study area.

### **4.3.1 Schools**

Table 4.3-1 lists the schools in each of the study area communities as of 2010. When students in Gamètì and Wekweètì reach high school they must relocate to Behchokò, Whatì, Yellowknife, or elsewhere to graduate. The same is true of students in Detah or N'Dilo who generally transfer to one of the 2 high schools in Yellowknife to complete grade 12. Relocating to attend school presents difficult social and cultural adjustments for many students.

**Table 4.3-1 Schools in the Study Area**

Community	School	Grades
Behchokò	Chief Jimmy Bruneau High School	7-12
	Elizabeth Mackenzie Elementary School	K-6
Whati	Mezi Community School	K-12
Gamètì	Jean Wetrade Gamètì School	K-10
Wekweètì	Alexis Arrowmaker School	K-9
Detah	Kaw Tay Whee School	K-10
N'Dilo	K'alemi Dene School	K-11
Yellowknife	École Allain St.-Cyr	K-10
	École J.H. Sissons School	K-5
	École Sir John Franklin	9-12
	École St. Joseph School	K-8
	École St. Patrick High School	9-12
	Mildred Hall Elementary School	K-8
	NJ Macpherson School	K-5
	Range Lake North School	K-8
	Weledeh Catholic School	K-8
	William McDonald School	6-8

### 4.3.2 Enrolment and Graduation

Overall, educational attainment rates are highest within the non-Aboriginal population of the NWT (NWT Bureau of Statistics 2004a; Statistics Canada 2007a). Rates also tend to be higher in Yellowknife and other larger regional centres (e.g., Fort Smith, Hay River, and Inuvik) than in smaller communities (NWT Bureau of Statistics 2004b; Statistics Canada 2007a-f). To narrow the gap between the graduation rates of Aboriginal and non-Aboriginal students, the GNWT 2010-2011 budget set aside \$1.3 million to provide a new Aboriginal Student Achievement Coordinator position, promote literacy, provide after school tutoring pilot programs, support the development for culturally appropriate orientation for new teachers, and produce a long-term plan to improve Aboriginal student achievement (GNWT 2010).

Enrolment in Tłıchq schools between 2003-2004 and 2008-2009 declined by 5% from 834 to 795 students (B. Koslowski, GNWT Department of Education, Culture and Employment 2009, pers. comm.). In the same period, enrolment decreased by 10% in Yellowknife (Table 4.3-2). These decreases occurred even while populations were increasing. Student enrolment in N'Dilo and Detah experienced only minor fluctuations in this period with some evidence of more recent decline.

**Table 4.3-2 Student Enrolment, All Schools, 2003-2004 to 2008-2009**

School Year	Tłı̨ch̨q		Detah and N'Dilo		Yellowknife	
	Enrolment	Population	Enrolment	Population (Detah only)	Enrolment	Population
2003-2004	834	2801	151	214	3795	19 210
2004-2005	820	2826	161	219	3760	19 622
2005-2006	905	2887	151	214	3699	19 644
2006-2007	885	2889	161	237	3640	19 522
2007-2008	842	2937	157	240	3565	19 674
2008-2009	795	3025	144	255	3432	19 910
% change 2003-2008	-5	8	-5	19	-10	4

Notes: To be counted as enrolled, a student must have attended 60% of school days during September. Therefore, enrolment numbers may be underestimated. Detah and N'Dilo youth attending school in Yellowknife are counted in the Detah and N'Dilo enrolment statistics above. The populations reported are for the years 2003 to 2008.

Source: B. Koslowski, GNWT Department of Education, Culture and Employment, 2009, pers. comm.

The Department of Education, Culture and Employment suggests that declining enrolments between 2003 and 2009 may be due to a number of factors including a declining birth rate in the NWT as well as recent administrative changes to the education system: (L. Graf, GNWT Department of Education, Culture and Employment, 2009, pers. comm.):

- Prior to 2006, enrolment was defined as having had at least 40% attendance in the month of September. Students must now have 60% attendance in September to be considered enrolled.
- Around the same time, schools in the NWT transitioned from half-day to full-day kindergarten. This change may have discouraged some parents from enrolling their children in school before the age of 6.
- The Department of Education, Culture and Employment also discontinued funding of students over the age of 22 in 2006.

Average annual attendance rates (all schools) in 2007-2008 were lower in the Tłı̨ch̨q communities (86%) than in Yellowknife (92%), Detah, and N'Dilo (91%) (B. Koslowski, GNWT Department of Education, Culture and Employment, 2009, pers. comm.). One factor affecting attendance may be reluctance by some parents to encourage children to attend school because of negative family experiences with the residential school system:

*A certain percentage of the population had a very bad experience in school. Many of them are the products of the residential school system. Because of their experiences, they often still question what our school is doing to help young people. (Chief Jimmy Bruneau School Administrator, quoted in SAE 2007).*

Other factors mentioned in the baseline study interviews affecting attendance include inadequate parental supervision, especially for those parents who are working on rotations, lack of supervision in home environments where there is heavy alcohol use and other social conditions like crowding that affects both school attendance and performance.

The Tłıchq government, through the TCSA, expects all Tłıchq students to be taught in both Aboriginal and non-Aboriginal cultures equally. This is so they can participate in the wage economy, while maintaining and strengthening knowledge of Tłıchq traditions and language. This is somewhat of a challenge, however. Students living in Gamètì and Wekweètì, for example, must relocate to larger towns such as Whati or Behchokò to attend high school. Moving away for school may also represent a financial burden to families. The need to attend school away from home for those living in smaller communities can also bring feelings of isolation and lack of support.

#### 4.3.2.1 High School Enrolment and Graduation

The number of high school graduates and graduation rates are also indicators of educational attainment in a community. Employment rates are generally much higher for high school graduates (see Section 4.4.1). While high school graduation rates increased substantially between 2003 and 2005 in Yellowknife and in the Tłıchq region, they declined between 2005 and 2008 (Table 4.3-3). Both enrolments and graduation rates seem to be decreasing in the Tłıchq communities and Yellowknife. Rates are also lower in Tłıchq communities; of Tłıchq students enrolled in 2007, only 31% went on to graduate compared to 59% for Yellowknife.

**Table 4.3-3 Grade 12 Enrolment and Graduation Rates, 2003-2004 to 2008-2009**

School Year	Tłıchq			Yellowknife		
	Number Enrolled in Grade 12	Number of Graduates	Graduation Rate (%)	Number Enrolled in Grade 12	Number of Graduates	Graduation Rate (%)
2003-2004	75	18	24.0	218	163	74.8
2004-2005	43	19	44.2	222	188	84.7
2005-2006	79	33	41.8	249	184	73.9
2006-2007	77	28	36.4	302	191	63.2
2007-2008	82	25	30.5	349	205	58.7
2008-2009	75	-	-	319	-	-

- = data is not available.

Notes: Since to be counted as enrolled a student must have attended 60% of school days during September, enrolment numbers may be underestimated. Also, Detah and N'Dilo youth attending school in Yellowknife are counted in Yellowknife's enrolment and graduation statistics.

Source: B. Koslowski, GNWT Department of Education, Culture and Employment, 2009, pers. comm.



Despite the challenges facing many students, those achieving a high school diploma or more seem to be increasing slightly in the study area and the NWT overall (Table 4.3-4). Most likely schools and communities are placing a higher emphasis on completing high school. Many students are also seeking post-secondary opportunities to have a more competitive edge in the labour market and wage economy. Still, these statistics and the above analysis show that attitudes toward educational attainment are not changing much. As a whole, fewer individuals in the Tłıchǫ and Yellowknives Dene communities have a high school diploma; for example, approximately half as many Tłıchǫ residents (34%, 690 people) compared to Yellowknife residents (84%, 13 251 people) held a high school diploma or more in 2009.

**Table 4.3-4 Population Age 15 and Over with a High School Diploma or Greater**

Year	Population Age 15 and Over with High School Diploma or Greater																	
	Tłıchq		Behchokq		Whatı		Gamèti		Wekweèti		Detah		N'Dilo		Yellowknife		NWT	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1986	235	19	194	23	30	15	5	4	10	13	5	5	-	-	5739	67	12 329	52
1989	291	21	224	24	55	23	3	2	3	4	13	13		-	7171	78	13 742	60
1991	377	26	224	23	78	33	66	41	10	13	35	35		27	8244	74	15 408	60
1994	570	35	451	41	63	24	54	31	12	13	46	31		-	9890	79	17 685	63
1996	482	30	321	30	101	36	35	21	26	29	29	24		29	9525	75	17 898	64
1999	554	31	377	32	93	30	36	19	46	41	50	33		-	10 643	81	19 474	66
2001	482	30	309	30	112	36	51	29	19	21	33	29		44	9687	78	17 440	64
2004	685	35	487	38	118	33	52	25	32	29	53	35		28	11 917	82	21 312	68
2006	690	37	468	37	127	39	59	32	42	47	63	38	105	-	11 733	81	20 864	67
2009	690	34	467	34	122	34	68	32	34	42	58	32		40	13 251	84	23 274	69

- = data suppressed.

Sources: NWT Bureau of Statistics 2010c; N'Dilo: NWT Bureau of Statistics 2010d; Statistics Canada 2002a-f; 2007a-f.

### **4.3.3 Post-secondary Education**

Post-secondary education shows a declining trend in terms of completion. In 2006, about 10% (180 out of 1720) of the Tłıchǫ community population aged 15 to 64 held an apprenticeship or trades certificate or diploma (a further 5% [85] had a University certificate diploma or degree). This level of certification may have reflected an emphasis on Aboriginal hiring in the northern mining industry, with several SEAs having been signed since 1998. Nonetheless, from 2001 to 2006, the number of people with an apprenticeship/trades certificate/diploma in Yellowknife, Detah, and the NWT declined by 24%, 20%, and 23% respectively (Statistics Canada 2002e; 2002f; 2007e; 2007f). This trend follows the decline in post-secondary enrolments in these types of programs, which is somewhat surprising given the high employment associated with industrial development in the 2000s. There does not appear to be a correlation between post secondary enrolment and job growth.

In the same period (2001-2006), while the number of people with post-secondary education (University certificate, diploma, or degree) in Yellowknife and the NWT increased, the overall proportion of the population with post-secondary education decreased slightly by 2% (Statistics Canada 2002f; 2007f). One possibility for this dip is some out-migration of people with post-secondary education, or conversely some in-migration of those with less education. The number of people in Tłıchǫ communities with post-secondary education remained about the same between 2001 and 2006, or 7% and 5% of the population respectively (Statistics Canada 2002a-d; 2007a-d). This would indicate that movement of people with post-secondary education is occurring to and from Yellowknife, but not elsewhere in the study area.

## **4.4 EMPLOYMENT AND INCOME**

The 1998 *Mackenzie Valley Resource Management Act* provides the framework and impetus for the development of social and economic agreements, which require continual data monitoring, northern hiring, and northern subcontracting. There are challenges however, in developing ongoing employment opportunities in the NWT due to the lower number and availability of skilled and trained workers.

To encourage employment of northerners (especially Aboriginal northerners) in the NWT's growing mining industry, the Mine Training Society (MTS) was established in 2004 to deliver local and regional programs. Many of these were offered in partnership with the Tłıchǫ government and communities, resulting in employment of 64% of trainees between 2004 and 2007, including women (MTS

2008). Additional details of MTS programs are provided in Appendix II.

Study area communities are concerned about the amount and type of employment opportunities available to local and Aboriginal people for the NICO Project. For example, while efforts have been made to ensure employment quotas of local and/or Aboriginal workers, non-NWT residents account for 63% of the management, professional and skilled employment person years at the Snap Lake Mine, 52% of these positions at the Diavik Mine, and 54% at the Ekati Mine (De Beers Canada 2010; Rio Tinto 2010; BHP 2010). At MVEIRB's 2008 and 2009 Project EA Scoping Sessions in Behchokò, Whatì, Gamètì, Wekweètì, and Yellowknife, attendees expressed several concerns regarding employment at the NICO mine, including the following:

- **Number and level of job opportunities:** In the past there has been a lack of employment potential beyond entry level jobs and few management level jobs. There is concern that fewer actual jobs will materialize than originally claimed. Will there be equal employment opportunities for women? Will there be hiring percentages for Northerners by demographic (e.g., Tłìchq, Inuk, Métis, etc.)? Will hiring policies be transparent?
- **Tłìchq employment and contract opportunities:** The Tłìchq are still struggling for employment, training, and contracts. Gamètì has observed that other mines have hired workers from southern Canada while there are Tłìchq citizens that remain unemployed. How many and what kinds of positions at the NICO mine will be filled by Tłìchq citizens? Will there be employment opportunities for Tłìchq youth? Will they include management roles? Will Tłìchq citizens be employed in the environment department? There should be ongoing monitoring of Tłìchq employment levels.
- **Longer-term benefits and considerations:** Long-term benefits are needed for communities (e.g., job training and management jobs). What will happen to jobs at the mine during a downturn in the economy? Will those laid off from the diamond mines benefit from this Project? Will there be anti-abuse policies in the workplace?

Employment opportunities for residents of potentially affected communities can be partially evaluated based on the current supply of labour and measures of the labour force activity. The labour force is defined as all individuals aged 15 years and older who work or who are looking for work. Indicators of the employed and employable population in the study area and NWT include:

- employment rates relative to educational attainment;
- employment programs (Appendix II);

- labour force experience by occupation; and
- participation, unemployment and employment rates.

Whether potentially affected communities will benefit from the NICO Project employment opportunities is also a function of the implementation and monitoring of effective local hiring and contract policies and programs; in particular, those meant to address barriers to hiring and retention (e.g., MTS training programs and initiatives).

#### **4.4.1 Prior and Existing NICO Project Employment**

From 2007 to 2009, during the exploration and environmental baseline assessment phases of the NICO Project, Fortune contracted out several positions to Tłı̨ch̨ residents (Table 4.4-1). Positions included cook's helpers, housekeepers, general labourers, environmental assistants and a heritage survey assistant. A total of 15 Tłı̨ch̨ residents (9 women, 6 men) were seasonally employed on various NICO programs between 2007 and 2009, earning an annual average of \$44 180 (\$18.46/hour). This was over double the 2010 NWT minimum wage of \$9.00/hour.

Between 1996 and 2008, a total of 10 Tłı̨ch̨, 3 Métis, and 3 Yellowknives Dene contractors worked on the NICO Project doing line cutting, core splitting, site preparation and maintenance work, claim staking, and winter road maintenance. Since 2005, 5 contractors (4 Tłı̨ch̨ and 1 Yellowknives Dene) earned a total of \$37 990 on site prep, maintenance, and core splitting.

**Table 4.4-1 Tłjchq Seasonal Employment on the NICO Project**

Program and Year	Positions	Level of Position	Gender	Number of Days Worked	Start Date	Finish Date
Winter Program 2007	cook's helper	entry level	female	143	2 May	21 September
	Labourer	entry level	female	157	18 April	21 September
	Labourer	entry level	female	13	5 April	17 April
Summer Program 2007	Housekeeper	entry level	female	15	27 June	11 July
	cook's helper	entry level	female	143	2 May	21 September
	labourer	entry level	female	157	18 April	21 September
Winter Program 2008	Labourer	entry level	male	5	23 March	27 March
	Labourer	entry level	male	5	23 March	27 March
Summer Program 2008	cook's helper/ housekeeper	entry level	female	29	15 August	12 September
Winter Program 2009	Labourer	entry level	male	9	1 March	10 March
	Labourer	entry level	male	9		
	Labourer	entry level	male	9		
Summer Program June 2009	environmental assistant	technical	female	7	12 June	19 June
	environmental assistant	technical	female	16	12 June	28 June
Summer Program August 2009	environmental assistant	technical	female	4	15 August	19 August
	environmental assistant	technical	female	9	15 August	24 August
	cook's helper/ housekeeper	entry level	female	8	15 August	23 August
	heritage survey assistant	technical	male	9	15 August	24 August
All	cook's helpers/ housekeepers (3)	entry level	female	294		
	environmental assistants (4)	technical	female	27		
	heritage survey assistants (4)	technical	male	9		
	labourers (7)	entry level	female (2); male (5)	207		

## 4.4.2 Employment and Educational Attainment

Employment and education are linked together. The 2006 employment rates by educational attainment are shown in Table 4.4-2.

**Table 4.4-2 Study Area Employment Rates by Educational Attainment, 2006**

Educational Attainment	Employment Rates [%]								
	Tłı̨chq̃	Behchok̃q̃	Whati	Gamètì	Wekweètì	Detah	N'Dilo	Yellowknife	NWT
less than high school diploma	34	23	30	42	40	37	30	58	42
high school diploma or greater	64	68	68	55	67	62	64	84	82

Sources: NWT Bureau of Statistics 2010c; N'Dilo: NWT Bureau of Statistics 2010d.

Employment rates jump considerably for those with at least a high school diploma compared to those with less than a high school education especially in the Tłı̨chq̃ region. In 2004, unemployment rates were about 5 times higher for Aboriginals than non-Aboriginals in the territory (21% compared to 4%), even with the same levels of education (Table 4.4-3).

Table 4.4-3 Labour Force Activity by Educational Attainment and Ethnicity, 2004

Educational Attainment	NWT Aboriginal Population							NWT Non-Aboriginal Population						
	Population Age 15 and Over	Labour Force	Unemployed	Employed	Participation Rate [%]	Unemployment Rate [%]	Employment Rate [%]	Population 15 and Over	Labour Force	Unemployed	Employed	Participation Rate [%]	Unemployment Rate [%]	Employment Rate [%]
Less than grade 9	3290	1399	482	917	43	34	28	332	193	16	917	58	8	53
High school, no diploma	4364	2441	689	1752	56	28	40	1834	1064	97	1752	58	9	53
High school diploma	2230	1521	220	1301	68	15	58	4230	3574	199	1301	85	6	80
Certificate or diploma	3618	3063	454	2609	85	15	72	5792	5246	177	2609	91	3	88
University degree	659	644	16	628	98	3	95	4673	4373	62	628	94	1	92
Not stated	278	138	36	102	50	26	37	69	40	7	102	58	18	48
All	14 440	9204	1897	7307	64	21	51	16 900	14 491	538	7307	86	4	82

Source: NWT Bureau of Statistics 2004c.



These data illustrate that other social and economic factors affect labour force participation and employment of Aboriginals in the NWT in addition to education levels. Such factors may include lack of previous experience, poor job seeking skills, or location and access (to employment market). Business and corporate hiring policies likely positively affect labour force participation and employment of Aboriginals, given that many companies have policies to target Aboriginals and northern residents. Some interviewees for the baseline study, however, felt that practices of some mining companies leaned towards hiring non-Aboriginals from outside the NWT.

### **4.4.3 Labour Force Characteristics**

While most of the data here is presented annually, labour force activity can change dramatically during the course of the year. Overall, employment rates in the NWT tend to increase in the spring and peak in the summer. They tend to decline in the fall and hit a low point in the winter (GNWT Department of Industry, Tourism and Investment 2006). These fluctuations are the result of seasonal employment opportunities that become available in the summer, such as those in the construction sector, highway maintenance, and forest fire fighting activities (GNWT Department of Industry, Tourism and Investment 2006). The mining industry also influences annual employment rates. The mining cycle includes exploration, construction, operation, mine closure, reclamation, and monitoring. Employment is less stable and short term (e.g., 3 to 4 years) for construction workforces, whereas mine operation jobs are usually long term (e.g., 10 to 20 years).

#### **4.4.3.1 Experienced Labour Force**

Table 4.4-4 shows the experienced labour force by occupation in 2001 and 2006. During this period little change occurred for labour force representation for any of the study area communities. In 2006, the top occupations in the Tłı̄ch̄ communities were as follows (Statistics Canada 2007a-d):

- trades, transport and equipment operators, and related occupations (24%);
- sales and service (24%);
- social sciences, education, government service, and religion (14%);
- business, finance, and administration (11%); and
- management (8%).

**Table 4.4-4 Labour Force by Occupation, 2001 and 2006**

Occupation		Tłıchq		Behchokq		Whati		Gamèti		Wekweèti		Detah		Yellowknife		NWT	
		2001	2006	2001	2006	2001	2006	2001	2006	2001	2006	2001	2006	2001	2006	2001	2006
Total experienced labour force	#	855	985	510	630	180	180	90	115	75	60	70	85	10 380	12 095	20 425	23 445
	%	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Management	#	80	80	50	40	10	20	10	10	10	10	0	10	1520	1530	2675	2855
	%	9.4	8.1	9.8	6.3	5.6	11.1	11.1	8.7	13.3	16.7	0	11.8	14.6	12.6	13.1	12.2
Business, finance, and administration	#	65	110	35	80	10	10	10	10	10	10	15	10	2065	2460	3540	4185
	%	7.6	11.2	6.9	12.7	5.6	5.6	11.1	8.7	13.3	16.7	21.4	11.8	19.9	20.3	17.3	17.9
Natural and applied sciences and related	#	15	10	15	10	0	0	0	0	0	0	10	10	950	1140	1470	1695
	%	1.8	1.0	2.9	1.6	0	0	0	0	0	0	14.3	11.8	9.2	9.4	7.2	7.2
Health	#	35	40	25	30	0	0	0	0	10	10	0	0	445	595	800	1010
	%	4.1	4.1	4.9	4.8	0	0	0	0	13.3	16.7	0	0	4.3	4.9	3.9	4.3
Social science, education, government service and religion	#	120	140	70	100	30	30	10	10	10	0	10	10	1090	1130	2360	2585
	%	14.0	14.2	13.7	15.9	16.7	16.7	11.1	8.7	13.3	0	14.3	11.8	10.5	9.3	11.6	11.0
Art, culture, recreation and sport	#	10	10	10	10	0	0	0	0	0	0	0	0	325	450	515	710
	%	1.2	1.0	2.0	1.6	0	0	0	0	0	0	0	0	3.1	3.7	2.5	3.0
Sales and service	#	200	235	110	135	55	55	20	35	15	10	10	20	2230	2695	4575	5300
	%	23.4	23.9	21.6	21.4	30.6	30.6	22.2	30.4	20.0	16.7	14.3	23.5	21.5	22.3	22.4	22.6
Trades, transport and equipment operators, and related	#	225	240	135	155	50	40	30	30	10	15	20	30	1355	1875	3380	4270
	%	26.3	24.4	26.5	24.6	27.8	22.2	33.3	26.1	13.3	25.0	28.6	35.3	13.1	15.5	16.5	18.2
Unique to primary industry	#	75	70	55	45	0	15	10	10	10	0	10	10	310	170	910	640
	%	8.8	7.1	10.8	7.1	0	8.3	11.1	8.7	13.3	0	14.3	11.8	3.0	1.4	4.5	2.7
Unique to processing, manufacturing, and utilities	#	10	20	10	10	0	10	0	0	0	0	0	0	85	60	215	210
	%	1.2	2.0	2.0	1.6	0	5.6	0	0	0	0	0	0	0.8	0.5	1.1	0.9

Note: Totals may not add up due to rounding.

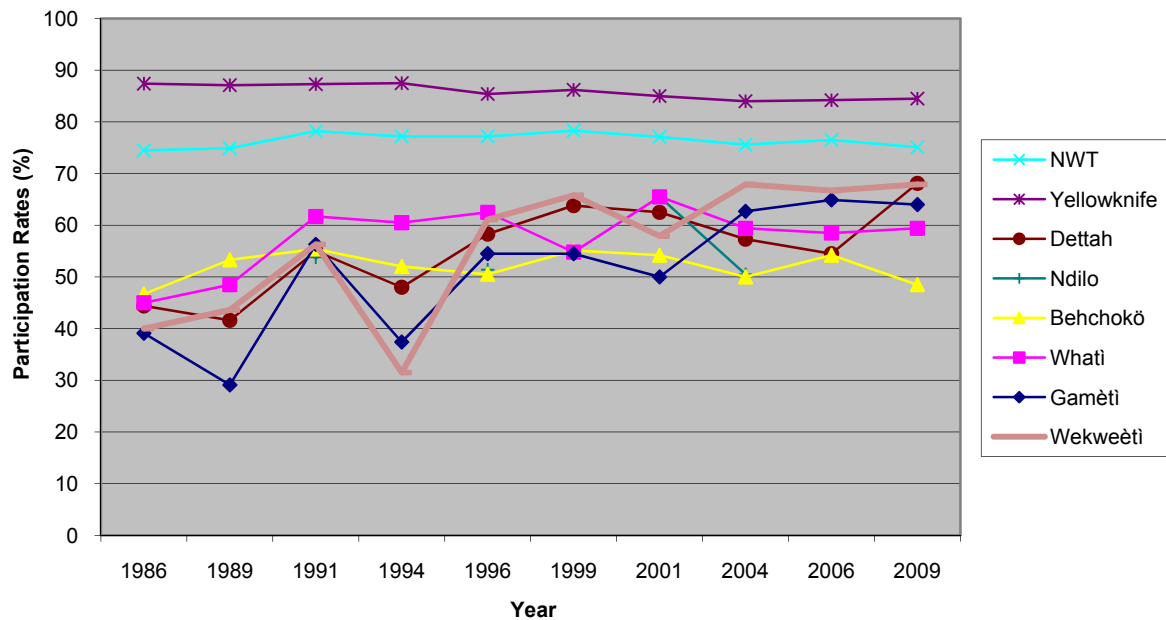
Sources: Statistics Canada 2002a-f; 2007a-f.

Gender differences within occupational groupings are pronounced among the Tłıchǫ. In 2006, Tłıchǫ women dominated the health occupations; 90% of the business, finance, and administration occupations; 74% of the social science, education, government service, and religion-related occupations; and over half (53%) of the sales and service occupations (Statistics Canada 2007a-d). Tłıchǫ men were heavily represented in occupations unique to primary industry or processing, manufacturing or utilities (100%), 96% of the trades, transport and equipment operators, and related labour force; and over half of the management positions (56%) (Statistics Canada 2007a-d). Similar gender differences are also evident in Yellowknife and the NWT, although not to the same degree for all categories. Gender differences were also mentioned during the baseline study interviews. For example, some felt that Tłıchǫ women tend to hold most of the available office and government positions in the community as they are more likely to stay in school longer. This suggestion is supported by the data presented here.

Mining is a key contributor to the economies of the smaller study area communities and the NWT overall. Almost a quarter of the Tłıchǫ labour force and about 30% of the Detah labour force are working in resource-based industries (e.g., mining) (Statistics Canada 2007a-d). While resource-based employment is under 10% in Yellowknife and the NWT overall, mining is an important sector given the small population base of under 45 000 (Statistics Canada 2007f).

#### **4.4.3.2 Participation and Employment Rates**

While considerable change in labour force activity has occurred in the small communities, labour force activity in Yellowknife and NWT has remained relatively stable from 1986 until 2009. In this period, participation rates in the Tłıchǫ communities and Detah have been increasing, with the exception of in Behchokǫ which has seen more constant participation rates (Figure 4.4-1). It must be noted that these numbers have not changed much since 2004; the greatest increases occurred in the 1990s and early 2000s when diamond mine construction and production was ramping up. The largest overall increase in the labour force has been in Wekweètì where the participation rate increased about 28% between 1986 and 2009; this represented an increase of only 15 people (NWT Bureau of Statistics 2009f).



**Figure 4.4-1 Participation Rates, 1986-2009**

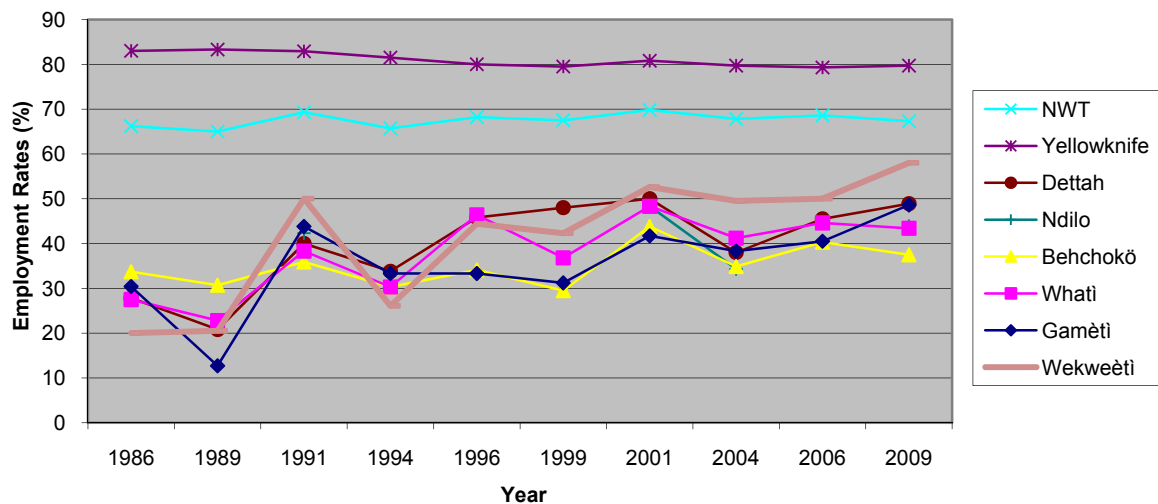
Sources: NWT Bureau of Statistics 2009f; N'Dilo: NWT Bureau of Statistics 2010d.

Among the Tłı̨chǫ, the main story regarding labour force participation rates is found in Behchokǫ. Behchokǫ has seen some improvement over the years but recently its participation rate dropped below 50%, its lowest level since the late 1980s. It may be that some individuals in Behchokǫ are simply giving up looking for work as a result of the economic downturn. Some interviewees for the baseline study suggested that criminal records or poor work performance that led to termination may be preventing some from getting paid employment with the mines (e.g., J. Carter, Yellowknives Dene First Nation 2010, pers. comm.; J. Drygeese, N'Dilo Youth Program Manager 2010, pers. comm.).

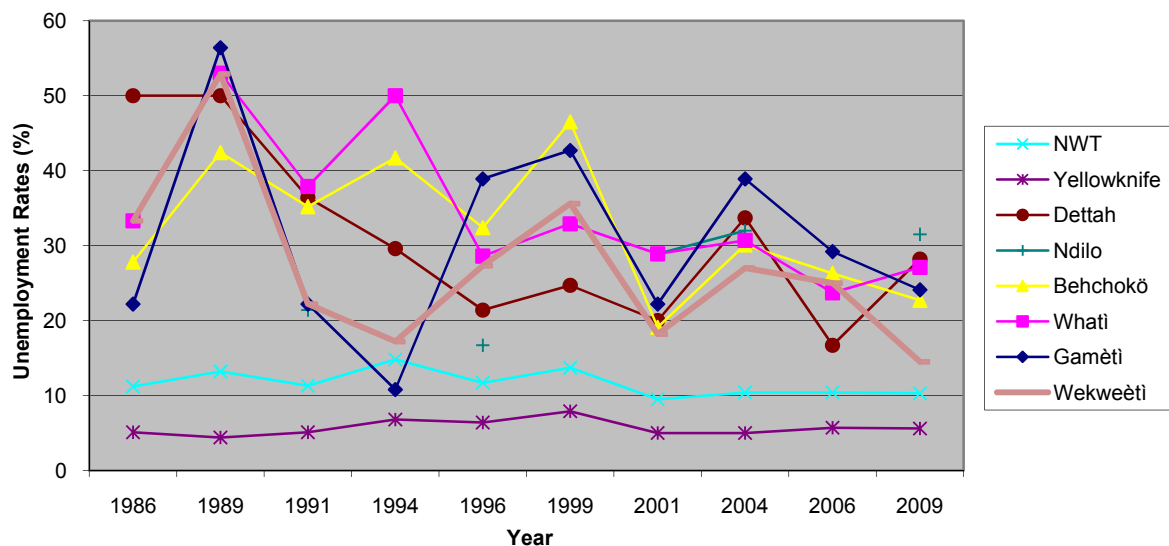
While historic data is not available for N'Dilo, the 2009 participation rate for the community was just over 64%, which is comparable to Dettah's rate of 68% (NWT Bureau of Statistics 2009f; 2010c). Participation rates in the NWT and Yellowknife have remained stable in comparison to the smaller communities.

From 1986 to 2009, while employment rates increased in all Tłı̨chǫ communities, overall they were still lower than Yellowknife's and the NWT generally. The largest change was in the smallest community (Wekweèti at 38%; 15 people were employed in 1986 compared to 47 in 2009) and the smallest change in Behchokǫ (4%; this represented an increase of 230 employed individuals) (Figure 4.4-2). Dettah's employment rate increased by 21% during this period (25 people were

employed in 1986 compared to 89 in 2009), and in 2009, N'Dilo's employment rate was almost 32% (155 people). While changes in unemployment rates over this period do not seem to follow any trends in the Tłı̨ch̨ communities and Detah, they are tending to decrease over time (Figure 4.4-3).



**Figure 4.4-2 Employment Rates, 1986-2009**



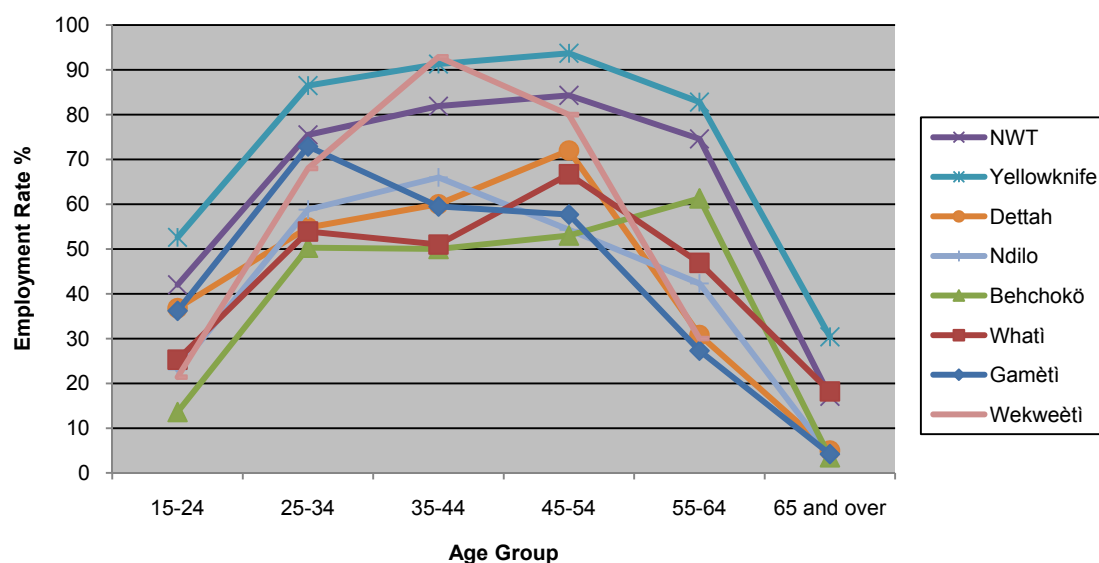
**Figure 4.4-3 Unemployment Rates, 1986-2009**

Sources: NWT Bureau of Statistics 2009f; N'Dilo: NWT Bureau of Statistics 2010d.

Unemployment rates have widely fluctuated on an annual basis in the smaller communities, although like participation rates, they have changed very little in Yellowknife and the NWT since 1986. Fluctuating employment and participation numbers is typical of small, resource-based communities due to dependence on a single industry, for example, as a result of changes in industrial or extraction activities due to markets (resource prices), among other factors. Long-term unemployment and under employment “is disproportionately high among those disadvantaged by age, injuries, illness, dated training, geographical isolation, and among Aboriginal peoples” (Leadbeater 1998).

Concerning age, employment rates in the study area and the NWT vary by age (Figure 4.4-4). In 2009, employment rates tended to increase until age 35-54, and then declined again as the population enters retirement (55-64).

On the positive side, overall employment rates in the NWT were consistently high during the 2000s, exceeding the Canadian average and most provinces (GNWT Department of Industry, Tourism and Investment 2009). The unemployment rate in the NWT declined slightly, from 7% in 2003 to 6% in 2008, with a low of just over 5% from 2005 to 2007. These low rates reflected the boom during the late 1990s to mid 2000s of the non-renewable resource sector; i.e., diamond mine construction and production, and the recent upswing in exploration activity in the natural gas sector (GNWT Strategic Planning Branch 2006a; b).



**Figure 4.4-4 Employment Rates by Age Group, 2009**

Sources: NWT Bureau of Statistics 2010c; N'Dilo: NWT Bureau of Statistics 2010d.

During the 2008-2009 economic downturn, the NWT maintained an unemployment rate of about 6% between 2008 and 2009 (NWT Bureau of Statistics 2010f). Participation rates however, fell by 4% as about 1200 people left the labour force; about 800 of these people lived in Yellowknife, 900 were non-Aboriginal and 1100 had less than a high school education (NWT Bureau of Statistics 2010f).

In the same year, employment in forestry, fishing, mining, and oil and gas fell by 500 positions; professional jobs in accommodation and food services decreased by 400 positions; and scientific and technical service jobs decreased by 300 positions. Public administration and educational services were the only sectors that recorded an increase in employment with 500 and 400 jobs respectively (NWT Bureau of Statistics 2010g)

During 2010, as of September, the NWT labour force has increased by 1700 people (from 21 800 to 23 500), with the participation rate rising from 69 to 74%. Overall, the number of persons in the labour force has been in an upward trend since Spring 2010. The number of employed people increased by 1500 (from 20 400 to 21 900) in 2010, translating into a 4% increase in the employment rate (from 65 to 69%). While the unemployment rate climbed to 8.9% in July, the rate in September remained the same as it was in January (6.4%). Compared to 2009, employment has increased primarily in full-time employment and the private sector (NWT Bureau of Statistics 2010h).

In short, diamond mines have played a role in increasing employment rates in the Tłı̄ch̄ and Yellowknives Dene communities (GNWT 2009a). The lower participation and employment rates are a function of access to wage employment, which in the smaller communities is often limited. Opportunities in mining require workers to be mobile and willing to participate in rotational employment. As many people in remote communities do not want to move away for work, opportunities for long-term, full-time employment tend to be concentrated in the larger regional communities or Yellowknife. Other possible barriers to employment were mentioned in the 2008 National Aboriginal Health Organization Report *Roundtable Discussion Exploring Community-Based Responses to Resource Extractive Development in Northern Canada*; these included lack of training and appropriate skills, social problems (e.g., addictions), lower literacy levels and perhaps racism in hiring (NAHO 2008).

#### **4.4.3.3 Potential Labour Supply**

The size of the potential labour supply can be estimated by certain variables in a given year including educational attainment and employment, unemployment, and participation rates (Table 4.4-5). To complete the labour supply picture,

additional data is needed on the people trained in certain occupations.

In 2006, a total of 680 Tłıchǫ residents worked in trades, transport and equipment related occupations, management occupations, business, finance, and administration occupations, natural and applied sciences and related occupations and resource-based industries. In Yellowknife and Detah, this figure was 7990 and 60 people respectively.

In 2009, there were 1072 people in the Tłıchǫ labour force. In Yellowknife and Detah, this figure was 13 327 and 124 respectively. Yellowknife's labour force represents over half of the NWTs labour force (25 315).

There is a strong long-term need for a trained and skilled workforce in the NWT (MTS 2009). A human resource needs assessment conducted across the NWT mining industry in 2008 identified the need for as many as 5000 new semi-skilled, skilled, and professional workers over the next 5 years (MTS 2009). This reflected employee turnover and retirements as well as growth (new jobs), and was almost double the previous forecast of 2700 (MTS 2008; MTS 2009).

#### **4.4.4 Income**

Incomes from wage earnings are increasing in small communities in the NWT and play a large role in the changing lifestyles of residents. The hope in many communities is that traditional knowledge and culture are not lost over time but maintained and fully integrated into the development of their education, economic, political and social systems (MVEIRB 2009b; c). Additional discussion about the importance of Tłıchǫ and Dene culture and language is presented in the Section 4.6 (Culture and Language).

Social problems such as gambling and alcohol and drug abuse are often linked by community members to higher disposable incomes (MVEIRB 2009b; d; e). In a 2002 study by the North Slave Métis Association, 65% of respondents reported that greater personal incomes may translate into an increase in gambling (NSMA 2001).



**Table 4.4-5 Potential Labour Supply, Study Area Communities and the NWT, 2006 and 2009**

Variable	Tłıchq		Behchokǫ		Whatı		Gamètì		Wekweèti		Detah		N'Dilo	Yellowknife		NWT	
Labour Force Characteristics (2009)																	
population over 15 years of age	2029		1374		360		214		81		182		262	15 775		33 730	
employed	822		515		156		104		47		89		115	12 576		22 699	
unemployed	250		151		58		33		8		35		53	751		2616	
in the labour force	1027		666		214		137		55		144		168	12 327		25 315	
not in the labour force	957		708		146		77		26		58		94	2448		8415	
high school or greater	690		467		122		68		34		58		105	13 251		23 274	
Educational Attainment (2006)																	
gender	male	female	male	female	male	female	male	female	male	female	male	female	-	male	female	male	female
high school diploma	80	100	55	65	15	15	0	10	10	10	10	10		1590	2075	2745	3385
apprenticeship or trades certificate or diploma	135	45	70	35	35	0	15	0	15	10	10	0		925	295	2265	680
college certificate	90	110	70	85	20	15	0	10	0	10	15	15		1405	1560	2790	3275
University certificate diploma or degree	40	85	30	55	10	10	0	10	0	10	0	0		1840	2040	2660	3075
at least a high school diploma	345	350	225	240	80	40	15	30	25	40	35	25		5760	5970	10 460	10 415
Total	690	690	450	480	160	80	30	50	50	70	70	50		11 520	11 940	20 920	20 830
Experienced In (2006)																	
trades transport and equipment related occupations	245	10	150	10	45	0	30	0	20	0	25	0	-	1720	155	3995	275
management occupations	45	25	20	15	15	10	10	0	0	10	0	0		895	635	1725	1130
business finance and administration occupations	10	95	10	65	0	10	0	10	0	10	0	10		590	1870	985	3205
natural and applied sciences and related occupations	10	0	10	0	0	0	0	0	0	0	0	0		880	255	1330	360
resource-based industries	210	30	140	20	35	0	25	10	10	0	25	0		710	280	1635	495
Total	520	160	330	110	95	20	65	20	30	20	50	10		4795	3195	9670	5465

- = data is not available.

Note: Statistics Canada rounds to the nearest 5 or 10 people in small populations to protect the confidentiality of respondents.

Sources: Statistics Canada 2007a-f; NWT Bureau of Statistics 2009f; N'Dilo: NWT Bureau of Statistics 2010d.

Recent data suggests; however, that the prevalence of gambling in the NWT has declined (i.e., from 78% in 1996 to 72% in 2006) (GNWT Department of Health and Social Services 2006; Appendix IV). The average amount of money spent in a typical week on gambling activity remained stable in this period (about \$44/week). Seniors were significantly more likely than the rest of the population to gamble at least once per week and Aboriginals were almost twice as likely as non-Aboriginals to gamble regularly.

NICO Project scoping session participants also cited concerns about the lack of money management skills among those entering the wage economy including incurring debts as a result of increased spending and then being unable to repay debts if layoffs occur because people are perhaps not accustomed to having savings (MVEIRB 2009b; e). For example, the recent economic downturn resulted in a 30% decline in global diamond sales, 128 layoffs and the termination of contracts affecting 90 other workers at the De Beers Snap Lake Mine (Paget 2009, internet site; Stone Messenger 2009, internet site). Both Rio Tinto's Diavik Diamond Mine and De Beers' Snap Lake Mine shut down for 6 weeks during the summer of 2009 (Northern News Service 2010, internet site). Prior to its shutdown DeBeers provided a money management plan to help employees set funds aside for when they were off work and information on how to access Employment Insurance benefits (DeBeers Canada 2010).

#### **4.4.4.1 Employment and Family Income**

Table 4.4-6 shows the average employment and family income in the NWT, Yellowknife and the Tłı̄ch̄ communities for the years 2002 to 2007. During this period, while average family and employment incomes in the Tłı̄ch̄ region increased faster than in Yellowknife and the NWT overall, they remained close to 30% less than incomes in the territory and almost 40% lower than incomes in Yellowknife. These increases in income levels across the NWT have been attributed to diamond mine development (GNWT 2009a).

#### **4.4.4.2 Low Income Families**

The NWT uses the Low Income Measure (LIM) as an indicator for poverty, which measures low incomes in relation to all incomes. The LIM is calculated at 50% of adjusted median income of an equivalent household (GNWT Department of Education, Culture and Employment 2007a). An LIM measure is categorized according to the number of adults and children present in families, reflecting the economies of scale inherent in family size and composition. The main benefit of LIM is its simplicity. LIM also captures the inequality dimension by defining households with low income as being much worse off than similar households (GNWT Department of Education, Culture and Employment 2007a).

**Table 4.4-6 Average Income, 2002 to 2007**

Year	Average Income (\$)									
	Behchokò		Whatì		Gamètì		Yellowknife		NWT	
	Employment	Family	Employment	Family	Employment	Family	Employment	Family	Employment	Family
2002	28 338	57 139	22 280	53 464	24 443	55 571	49 172	106 953	41 428	87 143
2003	28 742	58 502	23 992	62 091	24 508	54 357	49 370	107 543	41 904	88 244
2004	30 666	64 379	23 859	57 169	23 200	74 920	51 506	111 665	43 969	91 362
2005	32 783	69 981	26 000	64 618	24 121	55 500	54 037	117 023	45 843	96 171
2006	34 898	69 867	25 343	64 033	28 829	66 343	55 579	124 200	47 856	101 622
2007	36 729	77 936	28 446	70 333	30 375	74 714	58 591	128 473	50 627	107 252
<b>% change 2002-2007</b>	<b>30</b>	<b>36</b>	<b>28</b>	<b>32</b>	<b>24</b>	<b>34</b>	<b>19</b>	<b>20</b>	<b>22</b>	<b>23</b>

Note: Data for Wekweètì was not available.

Source: NWT Bureau of Statistics 2007b; 2007c.

The drawback of LIM is that the proportion of median income used (50%) is relative and arbitrary. It does not indicate if those below the LIM have sufficient income to meet their basic needs, and the measure does not vary with the business cycle (GNWT Department of Education, Culture and Employment 2007a).

Even with the number of families earning under \$30 000 annually decreasing in the study area, approximately 1 in 4 Tłıchǫ families were still in this lower income bracket in 2007 (NWT Bureau of Statistics 2007d). In the context of the NWT, this may not mean that these families are considered “low income”.

Table 4.4-7 shows the percentage of families, children and seniors (i.e., age 65 and over) living in low income families by family type in 1998 and 2007. All categories for both years show a decrease in the percentage of people living in low income families. The data also indicates that persons living in lone-parent families are more likely to be living below the LIM than those living in couple families.

**Table 4.4-7 Family Incidence of Low Income<sup>a</sup>, 1998 and 2007**

Family Type and Community	1998				2007			
	Families	Persons	Children Ages 0-17	Persons Aged 65 And Over	Families	Persons	Children Ages 0-17	Persons Aged 65 And Over
	Percentage [%] in Low Income							
All Families								
Behchokǫ	33	31	36	-	25	26	35	-
Whati	30	33	37		n/a	22	26	
Gamèti	60	30	27		n/a	12	19	
Yellowknife	9	10	15	5	8	8	14	
NWT	17	17	23	9	14	14	21	5
Couple Families								
Behchokǫ	22	21	22	-	10	14	18	-
Whati	-				4	4	6	
Gamèti					n/a	15	25	
Yellowknife	5	6	8		4	4	6	
NWT	10	12	15	7	7	8	11	4
Lone-parent Families								
Behchokǫ	60	58	64	-	50	52	61	-
Whati	50	67	67		n/a	39	50	
Gamèti	-				-			
Yellowknife	31	33	38		29	30	38	
NWT	40	42	48	17	36	37	46	11

<sup>a</sup> After-tax low income measure.

- = data is not available. Data for Wekweèti was not available.

Source: NWT Bureau of Statistics 2007e.

The representation of lone parent families in the study area between 2001 and 2006 has remained relatively constant or has increased slightly in the Tłı̨ch̨ communities as a whole, in Yellowknife and the NWT (Table 4.4-8).

**Table 4.4-8 Lone Parent Families in the Study Area, 2001 and 2006**

Community	2001			2006		
	Total # of Families	Lone Parent Families		Total # of Families	Lone Parent Families	
		#	%		#	% <sup>a</sup>
<b>Tłı̨ch̨</b>	<b>560</b>	<b>165</b>	<b>29</b>	<b>665</b>	<b>205</b>	<b>31</b>
Behchok̨	360	105	29	440	135	31
Whati	95	35	37	120	40	33
Gam̨ti	70	15	21	65	15	23
Wekwęti	35	10	29	40	15	38
Detah	45	10	22	65	20	31
N'Dilo	-			95	30	32
Yellowknife	4 465	705	16	5 025	790	16
<b>NWT</b>	<b>9 700</b>	<b>2 035</b>	<b>21</b>	<b>10 880</b>	<b>325</b>	<b>21</b>

<sup>a</sup> Percentage of total population.

- = data is not available.

Sources: Statistics Canada 2002a-f; 2007a-f. N'Dilo: NWT Bureau of Statistics 2010d.

Lone-parent families have been increasing in the NWT since 1986 (from 15 to 21% in 2006) (GNWT 2009a). Between 1986 and 2006, the percentage of lone parent families also increased in Canada (from 13 to 16% of families) (GNWT 2009a). The percentage of lone-parent families in Yellowknife is comparable to national rates. Lone parent families represent a greater proportion of all families in the Tłı̨ch̨ and Yellowknives Dene communities than in Yellowknife and the NWT.

#### 4.4.4.3 Income Disparity

Table 4.4-9 shows the percent of tax filers for each years from 2002 to 2007 who reported either making under \$15 000 ("low income") or over \$50 000 ("high income") in annual income. Table 4.4-10 shows the percentage of families for each year from 2002 to 2007 that reported either that they were making under \$30 000 or over \$75 000 in annual income. An indication of growing income disparity is if the gap between the number of low and high income filers increases over time.

**Table 4.4-9 Income Disparity, Reported Tax Filers Income, 2002 to 2007**

Year	Behchokò				Whati				Gamètì				Yellowknife				NWT			
	<\$15 000		>\$50 000		<\$15 000		>\$50 000		<\$15 000		>\$50 000		<\$15 000		>\$50 000		<\$15 000		>\$50 000	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
2002	460	43	230	22	130	46	50	18	70	41	30	18	2600	20	5590	43	7540	28	9390	34
2003	470	42	250	23	130	45	50	17	70	44	30	19	2760	21	5870	44	7890	28	9880	35
2004	500	44	280	25	130	45	50	17	70	41	30	18	2680	20	6080	45	7730	27	10 310	37
2005	490	42	310	27	110	39	50	18	60	38	20	13	2530	19	6340	47	7300	26	10 760	38
2006	470	40	300	26	120	41	60	21	60	35	30	18	2400	18	6710	49	7130	25	11 420	40
2007	430	37	340	29	110	37	70	23	40	24	40	24	2370	17	7270	52	6720	23	12 280	43
<b>Change 2002-2007</b>	<b>-30</b>	<b>-6</b>	<b>110</b>	<b>8</b>	<b>-20</b>	<b>-10</b>	<b>20</b>	<b>5</b>	<b>-30</b>	<b>-18</b>	<b>10</b>	<b>6</b>	<b>-230</b>	<b>-3</b>	<b>1680</b>	<b>9</b>	<b>-820</b>	<b>-4</b>	<b>2890</b>	<b>8</b>

Note: Percentages have been rounded for presentation purposes.

Source: NWT Bureau of Statistics 2007f.

**Table 4.4-10 Income Disparity, Reported Family Income, 2002 to 2007**

Year	Behchokò				Whati				Gamètì				Yellowknife				NWT			
	<\$30 000		>\$75 000		<\$30 000		>\$75 000		<\$30 000		>\$75 000		<\$30 000		>\$75 000		<\$30 000		>\$75 000	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
2002	160	35	120	26	40	36	20	18	30	43	20	29	560	11	3180	65	2080	19	5400	50
2003	150	32	130	28	20	18	30	27	30	43	20	29	630	13	3270	65	2230	20	5560	51
2004	150	31	180	38	50	39	30	23	10	20	20	40	610	12	3370	67	2230	20	5810	53
2005	140	30	190	40	30	27	30	27	30	43	20	29	610	12	3470	69	2080	19	6060	55
2006	140	29	180	37	30	25	40	33	30	43	20	29	540	11	3630	71	1980	18	6290	57
2007	120	26	200	43	30	25	40	33	30	43	20	29	490	10	3740	73	1820	17	6520	60
<b>Change 2002-2007</b>	<b>-40</b>	<b>-9</b>	<b>80</b>	<b>17</b>	<b>-10</b>	<b>-11</b>	<b>20</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-70</b>	<b>-2</b>	<b>560</b>	<b>8</b>	<b>-260</b>	<b>-3</b>	<b>1120</b>	<b>9</b>

Note: Percentages have been rounded for presentation purposes.

Source: NWT Bureau of Statistics 2007d.

Between 2002 and 2007, the gap between the number of low and high income earners decreased in the Tłıchq communities. During this period the number of low income earners remained higher than the number of high income earners in both communities. In Yellowknife and the NWT as a whole the trend is reversed. The gap between low and high income earners is growing as the number of high income earners continues to increase at a higher rate than decreases in the number of lower income earners. Unlike in the Tłıchq communities, there are higher proportions of higher income earners than lower income earners in Yellowknife and the NWT.

With respect to family income, the number of families with incomes greater than \$75 000/year surpassed the number of families earning less than \$30 000/year in 2004 in Behchokò and 2006 in Whati. At the same time, the gap between low and high incomes for families increased in Behchokò and decreased in Whati. In Gamètì the gap in incomes remained constant and lower income families outnumbered higher income families 3 to 2. In Yellowknife and the NWT, as with single income filers, the gap between low and high income families widened as the number of high income families increased at a higher rate than decreases in the number of low income families.

Overall, the number and proportion of lower income earners in the study area is decreasing while the number of and proportion of higher income earners is increasing. The proportion of high income earners in the Tłıchq communities is 15 to 20% lower than in the NWT. This is likely due to factors related to lower employment rates as mentioned previously. There was also a higher percentage of lower income earners in the Tłıchq communities of Behchokò and Whati compared to the NWT overall. Increases in income overall have been attributed to heightened activity in resource exploitation and extraction, including diamond mining, construction and overall growth in the NWT economy (GNWT Department of Industry, Tourism and Investment 2007a).

#### **4.4.5 Cost of Living and Household Spending**

The cost of living in the North is much higher than in many parts of southern Canada. This is due in large part to the increased costs of transportation needed to bring in food and construction materials and fuel costs involved in the transportation itself. Table 4.4-11 shows the 2004 and 2005 living cost differentials between Edmonton, Alberta and Yellowknife and the Tłıchq communities, as well as the Food Price Index for Tłıchq communities in comparison to Yellowknife.

**Table 4.4-11 Cost of Living and Food Price Index, 2004 and 2005**

	Behchokò	Whati	Gamètì	Wekweètì	Yellowknife
2004 Food Price Index (Yellowknife = 100)	137	153	153	170	100
2005 Living Cost Differential (Edmonton = 100)	123	148	148	-	118

- = data not available

Source: NWT Bureau of Statistics 2010c.

Food prices for those communities lacking year-round road access, including Whati, Gamètì, and Wekweètì, were higher than in Behchokò and Yellowknife. Market size largely drives the remaining price differences between Behchokò and Yellowknife.

While living costs and food prices are higher in the Tłìchò communities than in Yellowknife, people's incomes are much lower, making the cost of living that much less affordable for the average resident. Costs for housing and utilities (e.g., fuel) are often subsidized in small northern communities. Higher costs of living and higher food prices, however, translate into higher household expenditures, making it difficult in particular for those of limited means such as the unemployed or single parents. Table 4.4-12 shows the average expenditures per household in 2005 in Canada, the NWT and Yellowknife (community level data was not available but are likely higher than Yellowknife given the difference in living cost differentials).

When comparing Yellowknife to the NWT as whole, the only areas in which household spending was higher in the NWT was for food, tobacco products, alcoholic beverages, and games of chance. The average Canadian household spent more than the average NWT and Yellowknife household in only health care, education, gifts of money, and contributions.

Yellowknife and NWT residents pay more in personal taxes, personal insurance payments, and pension than the average Canadian. Prices for food, clothing, and other items continue to rise in the NWT, even as jobs have generally declined as a result of the economic downturn. Recent signs of recovery have not yet translated into job numbers that are on par with pre-2008 employment levels. The Yellowknife Consumer Price Index (CPI) for all items rose 2.3% from March 2009 to March 2010; by comparison, the annual price increase was 1.2% for Edmonton and 1.4% for Canada, while the index declined in Whitehorse by 0.2%.



**Table 4.4-12 Household Spending, 2007**

Type of Expenditure	Average Expenditures per Household Reporting (\$)					
	Yellowknife		NWT		Canada	
	\$	% <sup>a</sup>	\$	%	\$	%
Food	9060	9	9096	10	7305	11
Shelter	23 192	22	18 249	21	13 643	20
Household operation	4763	5	4110	5	3287	5
Household furnishings and equipment	3043	3	2466	3	1964	3
Clothing	4796	5	3844	4	2948	4
Transportation	12 040	12	11 439	13	9395	13
Health care	1782	2	1306	2	1932	3
Personal care	1631	2	1351	2	1167	2
Recreation	6843	7	6132	7	3976	6
Reading materials-printed matter	376	<1	312	<1	260	<1
Education	795	1	503	1	1017	2
Tobacco products and alcoholic beverages	2695	3	2792	3	1536	2
Games of chance	533	1	653	1	251	<1
Miscellaneous expenditures	1494	1	1116	1	1081	2
<b>Total current consumption</b>	<b>73 041</b>	<b>70</b>	<b>63 369</b>	<b>71</b>	<b>49 766</b>	<b>71</b>
Personal taxes	21 318	21	17 751	20	14 447	21
Personal insurance payments and pension	7633	7	6228	7	3946	6
Gifts of money and contributions	1769	2	1727	2	1788	3
<b>Total expenditures</b>	<b>103 762</b>	<b>100</b>	<b>89 075</b>	<b>100</b>	<b>69 946</b>	<b>100</b>

<sup>a</sup> Percentage of total expenditures. Total may not add up due to rounding.

Source: NWT Bureau of Statistics 2007g.

Shelter, food, and household expenditures accounted for almost 40% of household spending in 2007. The following sections include more details on housing costs and tenures in the study area.

#### 4.4.5.1 Household Tenure

Figures 4.4-5 and 4.4-6 show the household tenure for the years 2004 and 2009 in the study area and the NWT. While the percentage of homes owned has increased in Behchokò, home ownership decreased in the rest of the Tłı̄chq communities. Ownership has also increased in Yellowknife and the NWT overall since 1986. In Detah and N'Dilo home ownership has been as low as 46% (Detah in 1996) and as high as 62% (N'Dilo in 1996). The most recent statistics show an even split between home ownership and those that rent in the Yellowknives Dene communities.

Homes that are rented fall into 3 categories:

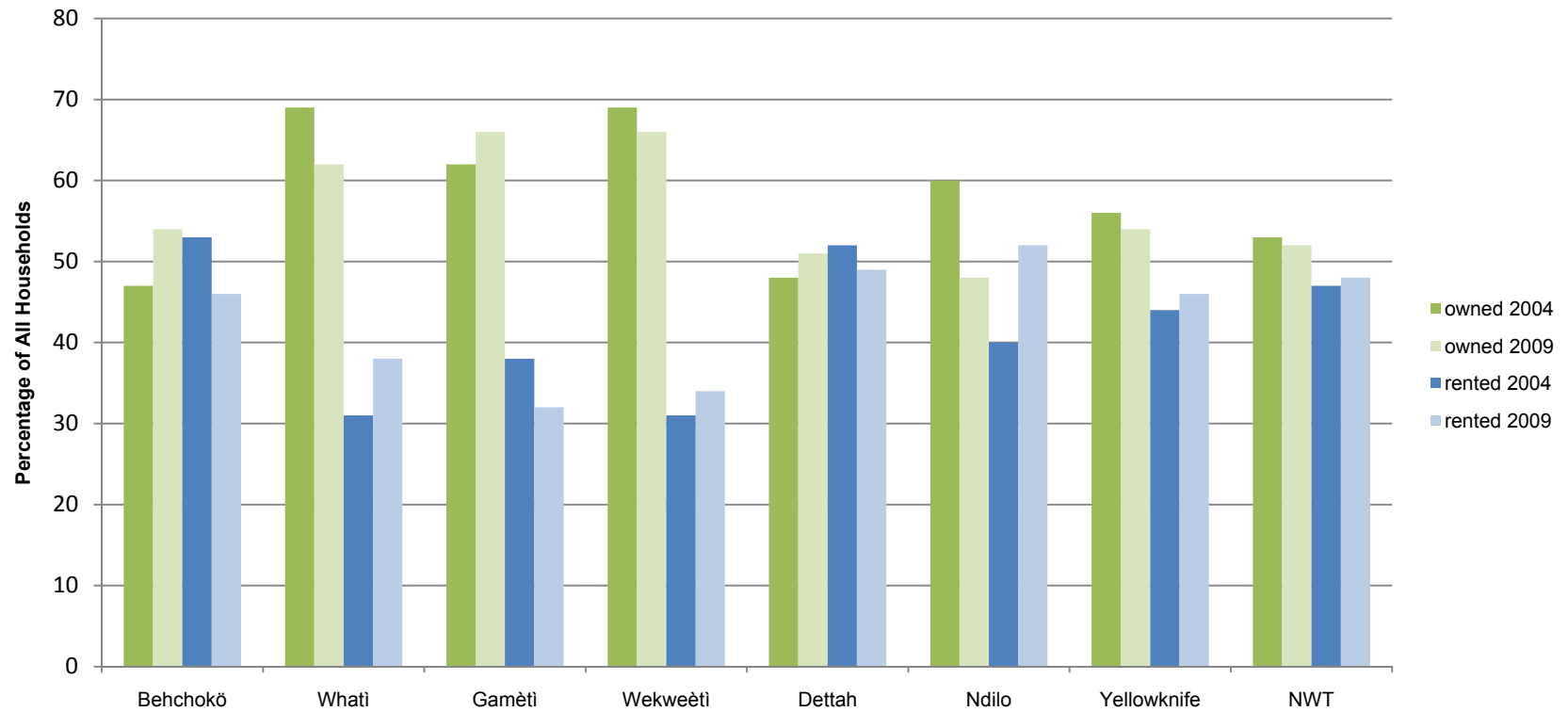
- private market rented;
- public housing; and
- staff housing.

Yellowknife is the only market community in the study area (i.e., having a private market for rentals and ownership). In 2009, 84% of Tłıchq rental homes and 74% of Yellowknives Dene rental homes were public housing units or staff housing compared to 27% of rental homes in Yellowknife and 48% in the NWT (Figure 4.4-6).

Local Housing Organizations (LHOs) in NWT communities act as landlords of public housing units. The NWT Housing Corporation (NWT HC) provides support and direction to LHOs. The NWT HC also sets maximum rents for all housing units. The LHOs functions include allocating units, collecting the household member portion of the rent, and handling maintenance and repairs of the units (GNWT Department of Education, Culture and Employment 2008). In 2010, the GNWT intends to move responsibility for income assessments back to local LHOs to improve client services while maintaining the need for fair and equitable treatment for clients (GNWT 2010). The LHO is based in Behchokq for the Tłıchq communities. The Yellowknives Dene act as the LHO for the communities of Detah and N'Dilo.

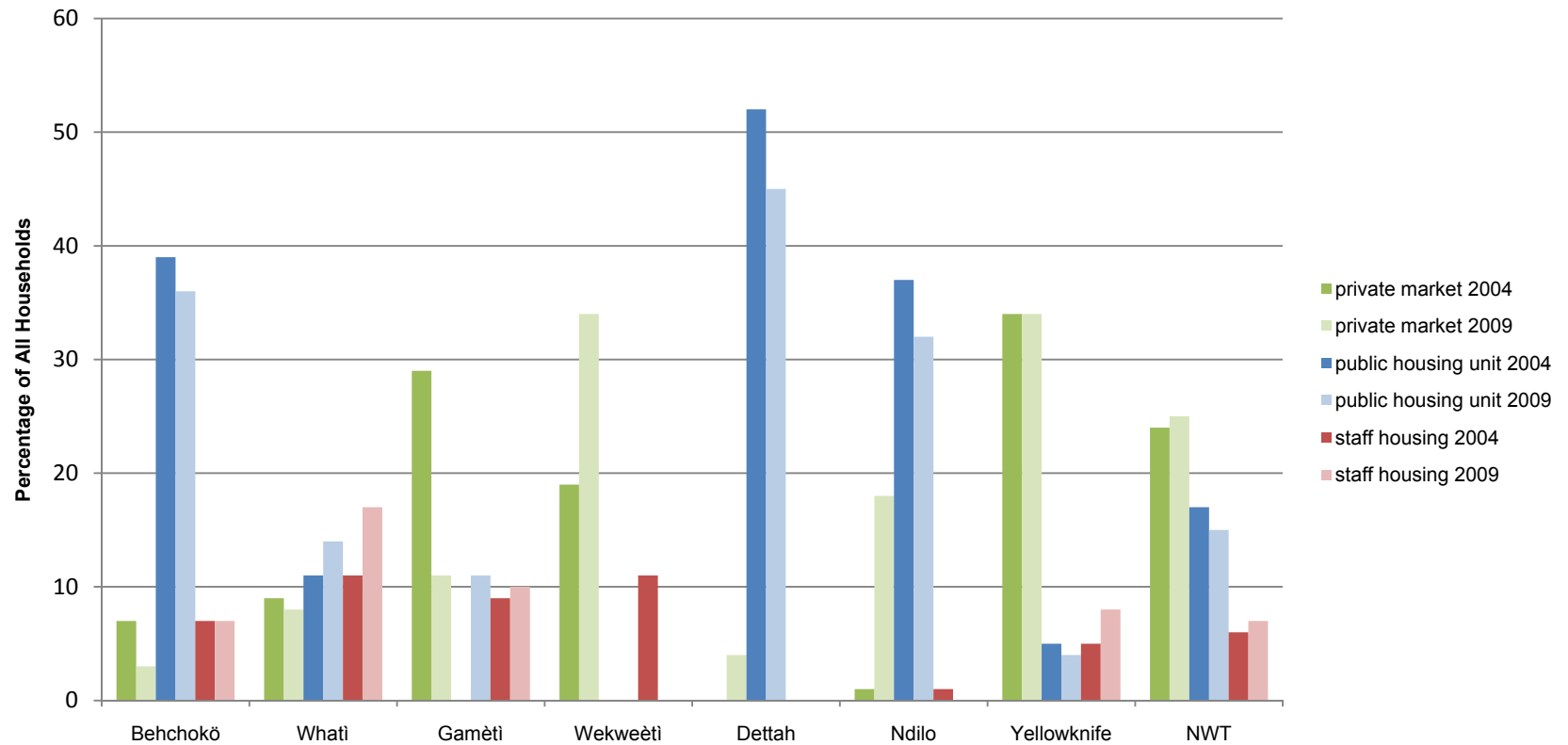
#### **4.4.5.2 Housing Costs**

Figure 4.4-7 shows the monthly housing costs for households in the study area and the NWT overall for 2004 and 2009. Housing costs include rent or mortgage payments, costs of heating, electricity, water, property taxes, land leasing, and insurance. While monthly housing costs are usually less than \$1000 in the Tłıchq region and in Detah and N'Dilo, these costs have increased since 2004. In 2009, between 12 and 20% more Tłıchq households were paying \$1500 or more per month to pay for monthly housing costs. Housing costs also increased in the Yellowknives Dene communities, in Yellowknife and the NWT overall. The 2010-2011 NWT Budget includes funds to update the cost of living rent reduction program, a program that reduces the cost of rent payable for tenants in public housing (GNWT 2010).



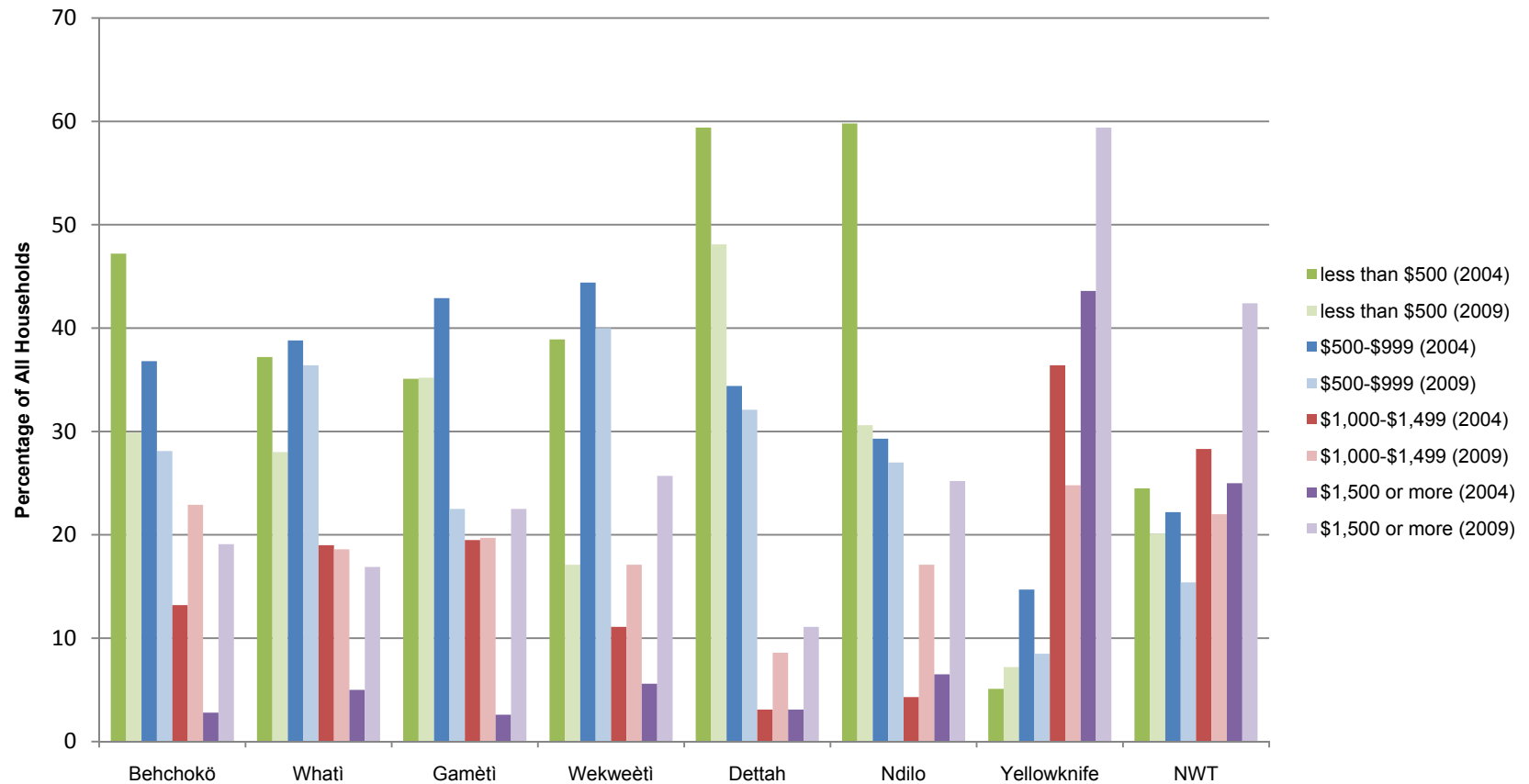
**Figure 4.4-5 Households, by Tenure and Community, 2004 and 2009**

Source: GNWT 2004b; NWT Bureau of Statistics 2010i.



**Figure 4.4-6 Rental Housing by Community, 2004 and 2009**

Sources: GNWT 2004b; NWT Bureau of Statistics 2010i



**Figure 4.4-7 Monthly Housing Costs by Community, 2004 and 2009**

Sources: GNWT 2004b; NWT Bureau of Statistics 2010i.

Table 4.4-13 shows the new food and clothing allowance rates by community as of September 1, 2007. Allowances in the Tłıchǫ communities are higher than in N'Dilo, Detah, and Yellowknife due to higher living costs. To reduce food costs, the GNWT 2010-2011 Budget includes a \$450 000 investment in the commercial harvesting, processing, and marketing of fish and game (except caribou) to NWT consumers (GNWT 2010). The GNWT is also investing \$250 000 in community-based agricultural development initiatives with the goal of increasing local food production to reduce expensive imports (GNWT 2010).

**Table 4.4-13 Food and Clothing Allowance Rates (\$) by Community, 2007**

Household Size	Allowance	Behchokǫ	Whati	Gamètı	Wekweèti	Detah, N'Dilo, Yellowknife
1	Food	390	436	437	486	286
	Clothing	82	99	99	86	79
2	Food	547	609	612	679	400
	Clothing	115	139	139	120	110
3	Food	664	741	743	825	485
	Clothing	140	170	170	146	134
4	Food	781	872	875	972	571
	Clothing	164	200	200	172	158
5	Food	898	1003	1006	1118	657
	Clothing	190	230	230	199	182
6	Food	1016	1134	1137	1264	743
	Clothing	214	260	260	225	206
7	Food	1133	1265	1269	1410	829
	Clothing	239	290	290	251	230
8	Food	1250	1397	1400	1556	915
	Clothing	265	320	320	278	254
9	Food	1368	1527	1532	1702	1000
	Clothing	290	350	350	303	278
10	Food	1485	1658	1663	1848	1086
	Clothing	314	381	381	329	302
11	Food	1602	1789	1794	1994	1172
	Clothing	339	411	411	356	326
12	Food	1720	1920	1926	2140	1258
	Clothing	364	441	441	382	350

Source: GNWT Department of Education, Culture and Employment 2007b.

#### **4.4.5.3 Income Assistance**

The number of people receiving income assistance from the GNWT has declined as employment opportunities have increased (GNWT Department of Education, Culture and Employment 2005). From 1998 to 2005, while there was an overall decrease in income assistance, a moderate increase was experienced for people aged 19 to 29 years. (GNWT Department of Education, Culture and Employment 2005). This suggests that there is still work to be done to improve the transition from high school and post-secondary graduation to the job market (GNWT Department of Education, Culture and Employment 2005). Between 2008 and 2009, the average monthly number of people receiving income assistance increased from 2067 to 2402 (or 16%) (NWT Bureau of Statistics 2010c) – likely as a result of the economic downturn when workers may have been unable to find alternative employment before their employment insurance ran out. GNWT training and employment programs are summarized in Appendix II. Income assistance is part of the GNWT Income Security Program, details of which are also available in Appendix II.

The use of income assistance is tracked using 3 statistics:

1. The monthly average number of beneficiaries of income assistance and their dependents over the year.
2. The monthly average number of cases (i.e., the average number of people requesting and receiving income assistance over the year).
3. The total amount of payments over the year.

Between 2003 and 2009, the average monthly beneficiaries of income assistance declined from 383 (14% of the population) to 308 (10% of the population) in the Tłı̄chq communities. The largest decreases were in Gamètì (11 to 4% or 32 to 12 average monthly beneficiaries) and Wekweètì (12 to 3% or 18 to 4 average monthly beneficiaries) while the representation of beneficiaries remained relatively constant in Behchokò (15% of the population in 2009) and Whatì (11% of the population in 2009). The representation of beneficiaries in the Yellowknife (2% in 2009 or 440 people) and the NWT (6% in 2009 or 2402 people) has also remained constant (Table 4.4-14).

**Table 4.4-14 Income Assistance Beneficiaries (monthly average), 2003 to 2009**

Year	Tłı̄chq̄		Behchok̄q̄		Whati		Gamèti		Wekweèti		Yellowknife		NWT	
	#	% <sup>a</sup>	#	% <sup>a</sup>	#	% <sup>a</sup>	#	% <sup>a</sup>	#	% <sup>a</sup>	#	% <sup>a</sup>	#	% <sup>a</sup>
2003	383	14	281	15	52	11	32	11	18	12	464	2	2152	5
2004	383	14	270	14	62	12	33	11	17	12	497	3	2073	5
2005	320	11	220	11	59	12	24	8	18	13	458	2	1911	4
2006	304	11	209	11	56	12	22	8	17	12	414	2	1912	4
2007	283	10	220	11	48	10	10	3	6	4	385	2	2024	5
2008	264	9	190	9	62	12	6	2	6	4	368	2	2067	5
2009	308	10	240	15	53	11	12	4	4	3	440	2	2402	6

<sup>a</sup> Percentage of the total population in the given year.

Note: due to program changes in 2007, data before this year is not directly comparable.

Source: NWT Bureau of Statistics 2010c.

While the average monthly number of beneficiaries declined in the Tłı̄chq̄ communities in this period the number and percentage of cases (as a percent of the total population) has remained stable in the Tłı̄chq̄, Yellowknife and the NWT as a whole. The average number of beneficiaries has been around 2 per case in the Tłı̄chq̄, Yellowknife and the NWT (NWT Bureau of Statistics 2010c).

Income assistance payments have been increasing and while a community's share of that total amount of payments in the NWT has remained constant in the Tłı̄chq̄ (12 to 13%) the average monthly payments have increased from \$568 to \$813 or 43% (NWT Bureau of Statistics 2010c). Increases in monthly payments have coincided with increases in monthly housing costs in the Tłı̄chq̄ and in the territory as a whole (see Section 4.4.4).

In Yellowknife, payments increased from \$2 900 000 in 2003 to \$3 687 000 but the share of the total amount of payments distributed in the NWT decreased from 32 to 25%. Average monthly payments increased from \$934 to \$1096, or 17%. In the NWT, average monthly payments have increased from \$671 in 2003 to \$856 in 2009, or 28% (NWT Bureau of Statistics 2010c). Many of those in need of social assistance include single parents with children. Of the 639 children who were beneficiaries of income assistance in 2009 (27% of all beneficiaries), almost 70% were children of single parents (FPT Directors of Income Support 2009).

## 4.5 HEALTH AND WELLNESS

The GNWT borrows their definition of health from the Canadian government. Well-being, or positive health is defined as "consisting of those physical, mental, and social attributes that permit the individual to cope successfully with



challenges to health and functioning” (GNWT Department of Health and Social Services 2005, p.9). Aboriginal communities in northern Canada experience higher risks to their health and wellbeing for a variety of reasons: the legacy of colonization (Moffitt 2004 cited in Gibson et al. 2008), residential school experiences, drug and alcohol abuse, limited access to health services, and limited education and employment opportunities (Gibson et al. 2008). This is expressed in higher rates of injury, suicide, sexually transmitted infections, and other indicators of socio-economic stress than in the rest of Canada (GNWT Department of Health and Social Services 2005).

The TCSA addresses issues and concerns related to addictions, along with mental health and wellness concerns. Concerns also include high levels of preventable illnesses such as sexually transmitted infections, tuberculosis, diabetes, and others that are creating high demands for services (TCSA 2006). The TCSA suggests that lifestyle choices are at least partly responsible for these health and wellness challenges:

*“When people moved off the land into settlements, they became increasingly dependent on professionals – the nurses and doctors, teachers, social workers – for their education, health and wellness. While there is a clear need for the assistance of professionals, many of the serious problems people are experiencing – addictions, diabetes, cancers related to smoking and diet, sexually transmitted infections, tuberculosis- are problems of lifestyle” (TCSA 2006).*

Some studies indicate that increasing incomes obtained through mining jobs poses potential risks to the health of northern communities in terms of behavioural changes (e.g., alcoholism and drug abuse) (Gibson and Klinck 2005; NSMA 2001). When combined with a lack of both financial experience and the responsibility to support a family, as is common for young, male workers, binge drinking can become a main channel for newly acquired earnings (NSMA 2001). Residents of Gamètì (and likely other communities in the study area) are also concerned that the NICO Project will lead to increased access to drugs and alcohol in communities and related social problems (e.g., family violence) (MVEIRB 2009b). Scoping session participants in Behchokò stated that the Tłıchq need to address their existing social problems before approving new projects (MVEIRB 2009d).

Given the above concerns listed by the TCSA and raised through NICO Project scoping sessions, this section summarizes the most recent data available regarding injuries and suicides, alcohol and drug use, smoking, tuberculosis, diabetes and sexual health. Health and wellness are tied very closely to the availability of adequate services, Appendix II includes a summary of the services available to help improve the health status of potentially affected communities.

## 4.5.1 Injuries and Suicides

Table 4.5-1 shows the total number of deaths, injury deaths, and suicides in the study area between 2001 and 2006. Death rates from accidents, suicides, and homicides are available for Yellowknife and the NWT between 1996 and 2004, and for most of these years for Behchokò. In 2004, the death rate from accidents, suicides, and homicides in Behchokò, the NWT and Yellowknife was 0.5 per 1000 people (NWT Bureau of Statistics 2007a). This was the lowest rate in the NWT since 1996.

**Table 4.5-1 Deaths, Injury Deaths and Suicides in the Study Area, 2001 to 2006**

Year	Total Deaths			Injury Deaths (including suicides)			Suicides		
	Tłìchq	Yellowknife	NWT	Tłìchq	Yellowknife	NWT	Tłìchq	Yellowknife	NWT
2001	11	38	163	1	4	31	1	-	8
2002	15	56	169	1	8	24	-	4	8
2003	10	60	202	1	10	36	1	2	10
2004	13	49	153	1	10	23	-	6	11
2005	12	35	148	-	5	21	-	1	4
2006	17	51	142	..					

- = zero or too small to be expressed.

.. = data is not available

Source: NWT Bureau of Statistics 2008a; 2010a.

Suicide rates are slightly higher in the Tłìchq and Dene communities than in Yellowknife (GNWT 2009a). The 3 year average number of suicides per 10 000 persons between 2002 and 2005 has remained at 1.9 in the Tłìchq and Dene communities (data also includes Łutselk'e). This rate was nearly double the rate prior to 2002 (1.0). In Yellowknife, the rate decreased from 2.1 to 1.6 in this period but is also higher than pre-2002 rates (1.1). The suicide rate in the NWT is nearly double the Canadian suicide rate which was 1.2 per 10 000 persons between 1998 and 2004 (GNWT 2009a).

The *NWT Health Status Report* (GNWT Department of Health and Social Services 2005) stated that between 1994 and 2003, the prevalence of depression remained unchanged and hospitalization due to self-inflicted injury remained fairly constant. Residents between 12 and 39 years of age were 2 times more likely than those 40 years of age and older to report symptoms of depression. Youth between 15 and 24 years of age had the highest hospitalization rate due to self-inflicted injury between 2001 and 2003 and were at the highest risk for suicide. Overall, the hospitalization rate for females was 2 times higher than the rate for males, while males were over 5 times more likely than females to die by suicide. Males typically use more fatal means to commit suicide. Despite efforts

to address suicide ideation the statistics do not show decreases in self-inflicted deaths. This is not to say that improved interventions have not reduced suicide attempts. Comprehensive data is not available on suicide attempts.

Data on self-reported mental health is available at the territorial level for 2004 and 2006 from the *NWT Addictions Survey* (NWT Bureau of Statistics 2006a). Full results are available in Appendix IV. Between 2004 and 2006 most demographic categories showed improvements in self-reported mental health. This coincided with a decrease in the NWT suicide rate between 2002/2004 and 2003/2005 from 2.3 to 2.0. Further analysis has not occurred at the territorial level to explain these improvements. Rates of doctor and nurse diagnosed injuries and poisonings are presented in Table 4.5-2.

**Table 4.5-2 Injuries and Poisonings, 2001-2002 to 2007-2008**

Year	Small Communities <sup>a</sup>						Yellowknife		NWT	
	Doctor-Diagnosed		Nurse-Diagnosed		Total <sup>b</sup>		Doctor-Diagnosed		Doctor-Diagnosed	
	rate <sup>c</sup>	# of diagnoses	rate	# of diagnoses	rate	# of diagnoses	rate	# of diagnoses	rate	# of diagnoses
2000-2001	151	428	202	607	353	1035	269	4695	228	9213
2001-2002	146	424	256	790	402	1214	238	4267	210	8560
2002-2003	149	456	324	1023	473	1479	228	4206	203	8456
2003-2004	113	341	289	910	402	1251	213	4072	195	8253
2004-2005	152	453	277	879	429	1332	213	4165	202	8686
2005-2006	153	473	258	836	411	1309	220	4297	212	9110
2006-2007	146	458	241	791	387	1249	217	4179	203	8672
2007-2008	147	468	..	..	..	..	207	4027	211	9106
<b>average</b>	<b>145</b>	<b>438</b>	<b>264</b>	<b>834</b>	<b>408</b>	<b>1267</b>	<b>226</b>	<b>4239</b>	<b>208</b>	<b>8757</b>

<sup>a</sup> Includes Behchokò, Whatì, Gamètì, Wekweètì, and Łutselk'e.

<sup>b</sup> The total rate of doctor and nurse-diagnosed injuries and poisoning may include some patients that were diagnosed by both a doctor and a nurse for the same injury or poisoning.

<sup>c</sup> Age standardized rate per 1000 persons.

.. = data is not available.

Notes: These numbers are estimates subject to future revisions due to record revisions, data entry delays and database design changes. N'Dilo and Detah numbers are included in Yellowknife, as separate postal codes do not exist for each community. Numbers include doctor-diagnosed injuries and poisonings regardless of location (clinic, hospital or other location). Some individuals may be diagnosed more than once for the same injury or poisoning. Nurse diagnosed numbers are not reported for Yellowknife residents as they are generally diagnosed at Stanton's emergency department (by doctors). The age standardized rate of nurse-diagnosed injuries in the NWT as a whole is not relevant. Most NWT residents would have most of their injuries diagnosed by local physicians – usually at a hospital.

Source: GNWT 2009a.

When taking both doctor-diagnosed and nurse-diagnosed injuries and poisonings into account, the rates in the Tłıchq communities and Łutselk'e are almost double the Yellowknife and NWT rates. These data do not suggest whether the rate or number of diagnosed injuries and poisonings are decreasing or increasing overall. The most recent rates and numbers of injuries and poisonings for the small

communities, Yellowknife and the NWT are below average.

#### 4.5.1.1 Injuries from Motor Vehicle Collisions

In addition to the injury rates presented above data is available regarding injuries from collisions in the NWT (Table 4.5-3)

**Table 4.5-3 Motor Vehicle Collisions and Victims in the NWT, 1998 to 2008**

Year	Number of Collisions				Number of Victims	
	Property Damage	Personal Injury	Fatal	Total	Injured	Killed
1998	452	135	2	<b>589</b>	196	2
1999	531	153	5	<b>689</b>	276	7
2000	547	128	3	<b>678</b>	182	5
2001	572	142	2	<b>716</b>	205	3
2002	650	154	3	<b>807</b>	232	3
2003	687	130	3	<b>819</b>	172	3
2004	682	113	3	<b>798</b>	151	3
2005	656	128	1	<b>786</b>	188	2
2006	564	88	3	<b>655</b>	112	2
2007	619	114	5	<b>738</b>	156	5
2008	740	116	5	<b>861</b>	173	5
<b>Average</b>	<b>609</b>	<b>127</b>	<b>3</b>	<b>739</b>	<b>186</b>	<b>4</b>

Sources: GNWT Department of Transportation 2000; 2003; 2006; 2008; 2009a.

The numbers of collisions and victims in the most recent years (2007 and 2008) have been above the 1998 to 2008 average. On the whole, collision rates per 100 vehicles and per 100 registered drives have been decreasing over the past 20 years (GNWT Department of Transportation 2009). In 2008, there were 66 collisions, 24 injuries, and 1 fatality on Highway 3. Of the 27 collisions that occurred on winter roads, 3 were on the Whatì winter road (2 property damage, and 1 injury collision) and 1 was on the Gamètì winter road (property damage) (GNWT Department of Transportation 2009).

Off-road vehicles, including snowmobiles and all-terrain vehicles, are a common form of transportation in remote communities in the NWT (GNWT Department of Transportation 2008). In 2008, 33% of off-road vehicle drivers in collisions had been drinking or were impaired by alcohol (or 9 of 27 collisions) (GNWT Department of Transportation 2009).

In 2008, 52 vehicle collisions involved alcohol (6% of collisions), resulting in 24 persons being injured, and 2 alcohol-related fatalities. These figures are

substantially below 20-year averages (GNWT Department of Transportation 2009). These results coincide with the results of the *2006 NWT Addictions Report* where a decline in drinking and driving within an hour of consuming 2 or more alcoholic beverages from 21% (1996) to 14% (2006) was noted (GNWT Department of Health and Social Services 2006).

The sections below largely summarize the results of the *2006 NWT Addictions Survey* and the *2006 NWT Addictions Report* (NWT Bureau of Statistics 2006a; GNWT Department of Health and Social Services 2006). The most recent addictions survey at the national level was conducted in 2004 (Canadian Centre on Substance Abuse 2005). Comparisons to national rates are made where possible. Information about counselling and addictions services are available in Appendix II and detailed results of the addictions survey are available in Appendix IV.

#### 4.5.1.2 Alcohol

Under the *NWT Liquor Act*, communities in the NWT have 3 options regarding their liquor status (NWT Liquor Commission and NWT Liquor Licensing Board 2009):

- unrestricted: no restrictions to the sale and distribution of alcohol as defined by the *NWT Liquor Act* or *Regulations*.
- restricted: a restriction may limit the quantity of alcohol and/or frequency that liquor can be brought into a community, the quantity of alcohol and hours of sale or hours of sale, or to seek approval to bring alcohol into the community from an Alcohol Education Committee.
- prohibited: complete ban on alcohol being brought into the community.

While Yellowknife's liquor status is unrestricted, Detah is a restricted community and liquor is prohibited in all 4 Tłıchǫ communities (NWT Liquor Commission and NWT Liquor Licensing Board 2009). While liquor prohibition has been in place in Whatì, Gamètì, and Wekweètì for many years, alcohol has been only been prohibited in Behchokǫ since 31 March 2009 (NWT Liquor Commission and NWT Liquor Licensing Board 2009). As a result of the ban, more people have criminal records as a result of minor liquor offences (see Section 4.5.8.1; J. Drygeese, N'Dilo Program Manager, 2010, pers. comm.).

For Detah, the restriction applies to the amount of liquor an individual can possess in any given month (NWT Liquor Commission and NWT Liquor Licensing Board 2009). This is either; (a) 12 containers (355 ml) of beer and 1 container (750 ml) of spirits; or (b) 4500 ml of wine (NWT Liquor Commission and NWT Liquor Licensing Board 2009).

Despite the prohibition of alcohol, alcohol abuse remains a concern for the TCSA and Tłı̨chǫ residents who have attended NICO Project scoping sessions. Community level data about alcohol use is limited, but according to the TCSA community survey in 2006-2007 (discussed previously), one-third of adult respondents (age 14 and over) claimed that they drank to get drunk a few times a month. Among the youth (age 9 to 13), 17% had tried drinking alcohol. One-third of those aged 12 to 13 had tried alcohol (CIET 2007). According to the RCMP, enforcing restrictions is difficult and challenges with illegal bootlegging of alcohol are common in some communities (Scott Clark Consulting Inc. 2007).

Compared to other age groups, regular heavy drinking was more common among youth and young adults. Men are also much more likely than women to report drinking heavily on a regular basis (GNWT Department of Health and Social Services 2005). In the NWT, the incidence of heavy alcohol use (i.e., the percentage of persons 15 years of age and over in the NWT who consume 5 or more drinks per occasion more than once monthly) has remained relatively constant. In 2002, 34% of persons age 15 and over drank heavily at least once in a given month compared to 36% in 2006 (NWT Bureau of Statistics 2007a). The prevalence of hazardous drinking (i.e., the inability to remember what happened the night before because of drinking, or injury due to drinking) was about 2 times higher in the NWT in 2006 than in other provinces and territories (GNWT Department of Health and Social Services 2006).

Although older residents, non-Aboriginals, higher education groups, higher income groups, and those living in larger communities tend to drink more frequently, younger residents, males, Aboriginals, lower education groups, lower income groups and those living in smaller communities drink larger quantities of alcohol when they do drink. These drinking patterns are likely related to the relative accessibility of alcohol in larger communities compared to smaller Aboriginal communities where alcohol is restricted or prohibited (i.e., alcohol may be purchased regularly in unrestricted communities whereas in prohibited communities alcohol use is related to access and the need to transport liquor into the community from elsewhere or to travel to unrestricted communities (e.g., N'Dilo, J. Drygeese, N'Dilo Youth Program Manager, 2010, pers. comm.).

The percentage of current drinkers in the NWT (78% in 2006) is comparable to the national rate (79% in 2004) and has remained constant since 1996 (Canadian Centre on Substance Abuse 2005; GNWT Department of Health and Social Services 2006; NWT Bureau of Statistics 2006a;). Where there are differences is with respect to the level of alcohol consumption. A drinker in the NWT is more likely to drink 5 or more drinks on one occasion (36% in 2006) than the average Canadian drinker (16% in 2004).

The *2006 NWT Addictions Survey* also examined the negative consequences of

alcohol consumption. In 2006, about 21% of current drinkers aged 15 and over reported at least one type of harm as a result of their own drinking. Harmful effects on friendship or social life (10%), physical health (10%) and home life or marriage (8%) were the most common types of harm in the year prior to the survey. Also in 2006, about 53% of the NWT population aged 15 and over experienced at least one type of harm from someone else's drinking. The most common types of victimization were insults or humiliation (33%), verbal abuse (29%), serious arguments (29%), pushing and shoving (25%), family or marriage problems (17%), and physical assault (10%) (GNWT Department of Health and Social Services 2006). These results are similar to 2004 Canadian averages (Canadian Centre on Substance Abuse 2005).

#### **4.5.1.3 Illegal Drug Use**

In 2006, cannabis use in the NWT was common but infrequent, 60% of people 15 years of age and over in the NWT had used marijuana, but only 20% had used either in the 12 months before the survey (NWT Bureau of Statistics 2006a). Overall, the proportion of lifetime users increased from 53 to 60% between 1996 and 2006 (GNWT Department of Health and Social Services 2006). These rates are higher than use of cannabis in Canada where 45% of people 15 and over have used cannabis in their lifetime and only 14% had used cannabis in the year prior to the survey (2003) (Canadian Centre on Substance Abuse 2005).

It was estimated that at least 10% of the NWT population aged 15 and over were using cannabis on a regular or weekly basis in 2006. Residents aged 15 to 24 were more likely than the older age groups, males were more likely than females and Aboriginals were more likely than non-Aboriginals to have used cannabis in the year prior to the survey. University graduates were less likely than the other education groups to have used cannabis, while both high and middle income households had a lower prevalence than low income households (GNWT Department of Health and Social Services 2006).

Lifetime use of any of the 5 types of other illicit drugs (i.e., cocaine, hallucinogens, speed, ecstasy, and heroin) has remained stable at around 17% between 1996 and 2006. The national rate was also 17% in 2004. Although not significant, the prevalence of past year use of any of the 5 illicit drugs increased from 2 to 4% between 1996 and 2006 (GNWT Department of Health and Social Services 2006). The survey may underestimate the use of illicit drugs as respondents may be unwilling to report the use of drugs and people with dependency issues may be less likely to participate or be sampled in these surveys (GNWT Department of Health and Social Services 2006).

About 1 in 4 past year drug users experienced at least one type of harm as a direct result of using drugs. The most common types of harm were to home life

or marriage (14%) followed by friendship or social life (12%), physical health (12%), work or study (8%), and learning difficulties (7%) (GNWT Department of Health and Social Services 2006). These results were comparable to national averages in 2004 (Canadian Centre on Substance Abuse 2005).

## **4.5.2 Smoking**

When compared to the total population, current smokers in the NWT were more likely to be male, Aboriginal, between the ages of 15 and 24, unemployed, have less than a high school education, make under \$20 000 annually, and live in the smaller NWT communities (NWT Bureau of Statistics 2006a).

In the NWT, the proportion of current smokers (i.e., both daily and occasional smokers) appears to be on a downward trend (from 44% in 1996 to 41% in 2006), but the change was not statistically significant. Most of the decline could be attributed to a decline in daily smoking (from 39 to 30%). Still, a modest increase in occasional smoking (from 6 to 11%) offset the decline (GNWT Department of Health and Social Services 2006).

In 2009, the percentage of the population that smoked was between 41 and 49% in Behchokò (48%), Whatì (41%), Gamètì (46%), Wekweètì (46%), Detah (49%), N'Dilo (45%), and 24% in Yellowknife (NWT Bureau of Statistics 2010c; 2010d). At the national level, only 18% of people smoked in 2008 (Physicians for a Smoke-Free Canada 2009). Therefore, while smoking rates are decreasing they are still more than double national rates.

School-based prevention programs have been actively engaging youth, educating them about the effects of tobacco and empowering them to stay smoke free or quit before tobacco addiction takes hold (GNWT Department of Health and Social Services 2007). School survey statistics have shown a decrease in smoking rates among Aboriginal youth from 25% in 2003, to 17% in 2006 (GNWT Department of Health and Social Services 2007).

## **4.5.3 Diseases of Concern**

In this section, diseases with a relatively high frequency or higher profile in the NWT are discussed. These include tuberculosis and diabetes.

### **4.5.3.1 Tuberculosis**

Tuberculosis (TB) remains a communicable disease of concern in the NWT (GNWT Department of Health and Social Services 2008a) even though it is virtually non-existent in the rest of Canada. Tuberculosis is a disease that attacks



the lungs, as well as other parts of the body and brain. Factors such as overcrowded living conditions, substance abuse and chronic health problems contribute to the increased risk of TB infection (GNWT Department of Health and Social Services 2008a). While TB rates among non-Aboriginal Canadians has decreased from one per 100 000 in 2003 to 0.8 per 100 000 in 2008, the rates among Aboriginals are rising (The Globe and Mail 2010, internet site).

Occasional outbreaks have been common in some NWT communities, with less than 10 to almost 40 annual cases (Table 4.5-4). While incidences of TB have declined in the NWT, the risk is higher among seniors and residents of smaller NWT communities (GNWT Department of Health and Social Services 2005). Between 1997 and 2007 the overall rate of TB was 104 per 100 000 person years in the Tłıchq (GNWT Department of Health and Social Services 2008a). This was 5 times higher than the Yellowknife rate. Nonetheless, since values of less than 5 have been suppressed for each community, this table does not accurately reflect the prevalence of TB in the Tłıchq region.

**Table 4.5-4 Tuberculosis Cases, 1991 to 2007**

Year	Tuberculosis Cases					
	Behchokq	Whati	Gamèti	Wekweèti	Yellowknife	NWT
1991	0	0	-	0	5	13
1992	-	0	0	0	0	11
1993	0	0	-	5	0	16
1994	-	-	-	7	-	38
1995	14	0	0	0	-	32
1996	8	0	-	0	-	24
1997	-	0	0	0	10	20
1998	-	0	0	0	-	7
1999	-	0	-	0	0	16
2000	-	0	0	0	-	10
2001	0	-	0	0	-	8
2002	-	0	-	0	-	4
2003	-	0	0	0	-	12
2004	-	0	0	0	-	9
2005	0	0	-	-	-	8
2006	-	0	-	0	1	6
2007	-	0	-	0	10	16

- = values of less than 5 have been suppressed.

Note: These numbers are subject to future revisions due to record revisions, data entry delays and database design changes. N'Dilo and Detah numbers are included in Yellowknife, as separate postal codes do not exist for each community.

Source: GNWT 2009a.

#### **4.5.3.2 Diabetes**

Diabetes is also a health issue of great concern in the NWT. If undiagnosed or untreated, it can lead to serious health issues such as blindness, limb amputations, kidney failure, stroke, heart attack, and ultimately, premature death (GNWT Department of Health and Social Services 2005). It can affect anyone at any age, but the possibility of diabetes increases with age.

The proportion of the population aged 20 years and older with diabetes has been on the rise in the NWT. By 2004, approximately 6.4% of NWT males and 5.9% of females had diabetes. This represents an almost doubling of the instance of diabetes in the NWT population over the previous 10 years (GNWT Department of Health and Social Services 2008b). Aboriginal people in the NWT are 3 to 5 times more likely to develop Type II diabetes, which occurs most often in obese individuals over the age of 40 who lead a sedentary lifestyle (Canadian Diabetes Association 2005).

#### **4.5.4 Sexual Health**

During 2006 and 2007, a committee of elders and youth working with TCSA educators and nurses visited each household in the 4 Tłıchq communities to discuss sexual health with families and to conduct a survey (CIET 2007). Data on awareness of STI prevention and attitudes was collected from all Tłıchq communities, as well as from Chief Jimmy Bruneau School. Researchers also interviewed some Tłıchq community members who had relocated to Yellowknife. Two instruments were used, 1354 respondents answered an “adult” questionnaire (for those aged 14 and over), and 241 answered a “youth” questionnaire (for those aged 9 to 13). The survey sample represented over two-thirds of the total target population (CIET 2007).

Their survey results indicated overall knowledge around key issues related to HIV was low. For example, 44% did not know if you could tell someone had HIV just by looking at them, over one-quarter disagreed that condoms could prevent HIV, and 29% did not know if they could or not. In addition, 40% felt that people living with HIV/AIDS should be forced to leave the community and 31% did not know if they should (CIET 2007). One-third of respondents had previously had an HIV test. Seven respondents reported an HIV positive result on their most recent test for HIV.

The survey also found that the average age of first sex was 16 years; however, 12% first had sex at age 13 or younger. Under half of respondents (42%) reported having used a condom the last time they had sex. When asked about sex without

a condom, 12% felt it was okay, and 22% did not know. Nearly 10% claimed to have had sex with more than one person in the last month. Among the youth (age 9 to 13), 41% had previously had a boyfriend or girlfriend, and 4% had had sex (CIET 2007). Risky sexual behaviour as described above has led to higher rates of sexually transmitted infections (see below) and unplanned pregnancies in the Tłıchq communities.

Births to teen mothers is substantially higher in the Tłıchq communities and Detah than Yellowknife or the NWT overall. Births to teen mothers have accounted for roughly 20% of all births in Tłıchq communities (NWT Bureau of Statistics 2008a; 2010a). In Yellowknife and the NWT this figure has been between 5 and 10% of all births (NWT Bureau of Statistics 2008a; 2010c).

The survey analysis results have been used to develop an ongoing community-based Sexual Health/STI Reduction Strategy: the Tłıchq Healing Wind Strategic Plan. The goal of the project is to reduce the incidences of STIs in the region through promotion of healthy sexual practices in the context of respectful relationships (CIET 2007).

### ***Sexually Transmitted Infections***

Between 1999 and 2003, females were nearly 2 times more likely than males to be diagnosed with a sexually transmitted infection (STI). Females between 15 and 24 had the highest rate of STIs during this period (973.9 per 10 000 population). The findings reflect the fact that women are more likely than men to get tested for an STI as men tend to show fewer symptoms than women and women are more likely to encounter the health care system through well-women clinics and infant/child programs (GNWT Department of Health and Social Services 2005). Whether they were male or female or living in Yellowknife or a small community, youth between 15 and 24 also had the highest STI rates compared to other age groups. This would not appear to be unusual for any community in Canada. The rate of STIs was over 2 times higher in the smaller communities than the regional centres and over 3 times higher than the rate for Yellowknife (GNWT Department of Health and Social Services 2005).

More recent data shows similar trends. In 2006, over 60% of residents in the Tłıchq communities, Yellowknife and the NWT that were infected with either Chlamydia or gonorrhoea were between the ages of 15 and 24 (GNWT 2008a). Between 1996 and 2007, STI rates in the study area and the NWT have fluctuated but are, in general, on the rise (Table 4.5-5). Sexually transmitted infection rates were also much higher in the Tłıchq communities than in Yellowknife.

#### **4.5.5 Causes of Death and Potential Years of Life Lost**

The most common cause of death of individuals in the NWT in 2009 was circulatory disease (28%), followed by cancer (24%, including lung cancer) and respiratory disease (14%, including tuberculosis) (Statistics Canada 2010). Between 1994 and 2003, colorectal cancer was the most common type of cancer diagnoses for men in the NWT, while breast cancer was the most common type for women. There was no significant difference in overall incidence rates between Yellowknife, the regional centres, and the smaller NWT communities after differences in age structures were taken into account (GNWT Department of Health and Social Services 2005).

**Table 4.5-5 Sexually Transmitted Infection Rates and Cases, 1996 to 2007**

Years	Sexually Transmitted Infection Rates per 1000 people and Cases													
	Small Communities <sup>a</sup>		Behchokò		Whatì		Gamètì		Wekweètì		Yellowknife		NWT	
	rate	cases	rate	cases	rate	cases	rate	cases	rate	cases	rate	cases	rate	cases
1996	35	103	35	61	65	28	27	7	-	-	6	109	11	463
1997	34	100	27	47	78	34	40	11	-	0	7	122	11	442
1998	40	118	29	51	113	51	21	6	-	0	9	152	14	555
1999	31	92	24	42	79	37	-	-	-	-	8	142	13	539
2000	44	135	31	54	81	39	83	24	-	-	9	152	15	621
2001	58	177	50	90	112	55	-	-	-	-	7	119	17	683
2002	49	156	47	86	88	44	41	12	5	5	7	135	17	722
2003	49	156	52	97	69	34	43	13	-	-	10	190	17	730
2004	43	140	47	88	46	23	54	16	-	-	9	185	17	712
2005	50	164	52	100	95	48	-	-	-	-	15	290	20	871
2006	63	209	54	108	135	69	46	14	-	-	12	230	21	880
2007	59	199	49	99	130	68	68	21	-	0	14	273	23	974

<sup>a</sup> Includes Behchokò, Whatì, Gamètì, Wekweètì, and Łutselk'e.

- = means data where cell values of less than 5 have been suppressed to protect privacy.

Note: These numbers are subject to future revisions due to record revisions, data entry delays and database design changes. Numbers for 2003 to 2007 are based on community of treatment. N'Dilo and Detah numbers are included in Yellowknife. Sexually Transmitted Infections reported: Chlamydia and Gonorrhoea.

Source: GNWT 2009a

A community's rate of "potential years of life lost" (PYLL) indicates the potential for early death. Potential years of life lost is a useful measure of health, well-being, and lifestyle choice as early death can often be avoided by making healthy lifestyle choices (GNWT 2007a). Potential years of life lost is calculated based on an average lifespan of 75. The average lifespan of 75 is then subtracted from the age at which a person dies. For example, if someone dies at age 50, the PYLL for that person is 25 years ( $75-50=25$ ). The PYLL for a community is calculated by adding all the years of life lost through early death in a given year. To minimize annual fluctuations, PYLL is generally reported as a 3-year average rate per 1000 people. Table 4.5-6 shows the PYLL rates for the NWT, Yellowknife, and small communities in the study area.

**Table 4.5-6 Potential Years of Life Lost (<75 years), Rate per 1000 Persons, 3-Year Average, 1991-1993 to 2003-2005**

Years	Potential Years of Life Lost		
	Small Communities <sup>a</sup>	Yellowknife	NWT
1991-1993	91	48	72
1996-1998	82	41	67
1998-2000	59	48	72
2000-2002	44	42	65
2002-2004	54	54	68
2003-2005	54	54	68

<sup>a</sup> Includes all Tłıchǫ communities, Detah, and N'Dilo, as well as Lutselk'e.

Note: Rates are based upon 2004 population estimates.

Source: GNWT 2009a.

Prior to 1998, the PYLL rate in the small communities was higher than rates for the NWT and Yellowknife. In recent years, the PYLL in the small communities has been similar to Yellowknife and below NWT rates. This is likely the result of improved access to health care services in smaller communities.

#### 4.5.6 Households in Core Need

In addition to the above indicators of physical and mental health, health and wellness in a family or a community is also a function of having access to affordable and adequate shelter. The following section discusses existing housing problems in the study area communities as well as the prevalence of households in core need.

Northern communities like Whatì, Gamètì, and Wekweètì are remote and are only accessible by air and winter road. Building materials and supplies must be

shipped in from southern Canada or from major centres in the North that are not available locally. Supplies are sent on seasonal winter roads or by air. The remote geography and existing infrastructure often make the transportation of materials and supplies difficult and expensive. The cold climate limits the construction season and dictates the need for building materials that can withstand extreme temperatures and contributes to high home heating and electricity costs. There has always been a shortage of skilled labour in remote Northern communities and the need to transport and accommodate construction crews from outside the community adds to the high cost of construction. The high cost of building and operating housing make housing unaffordable for a large portion of the population without government support and intervention (CMHC 2008).

The Core Need Income Threshold (CNIT) is the income limit for each community that represents the amount of income a household must have to afford the cost of owning and operating a home or, in market communities (i.e., Yellowknife), renting a home without government assistance. The cost of owning and operating a home in the NWT takes into consideration:

- the amount of the mortgage payment based on mortgage value (principle including land costs and interest) and amortized over 25 years; and
- shelter costs which include monthly taxes, monthly power, monthly heating, monthly domestic water and sewer, insurance premiums and anticipated maintenance costs (NWT Bureau of Statistics 2010i).

Monthly payments based on the above criteria are calculated and the income threshold represents an income that will support these payments without a household spending over 30% of their gross income to own and operate the home (NWT Bureau of Statistics 2010i). If a household has any one housing problem (i.e., suitability, adequacy, or affordability) or a combination of housing problems, and the total household income is below the CNIT, the household is considered to be in core need. Housing suitability, adequacy, and affordability are described below.

Housing suitability refers to the problem of overcrowding or whether a household has enough bedrooms appropriate to the number of people. The number of bedrooms required for a household is determined by the *National Occupancy Standards*, which specify:

- a minimum of 1 and a maximum of 2 persons per bedroom;
- each cohabitating couple must have their own bedroom;
- household members aged 18 or more need a separate bedroom, unless married or cohabitating spouses; and

- dependants aged 5 or older of the opposite sex do not share a bedroom (NWT Bureau of Statistics 2010i).

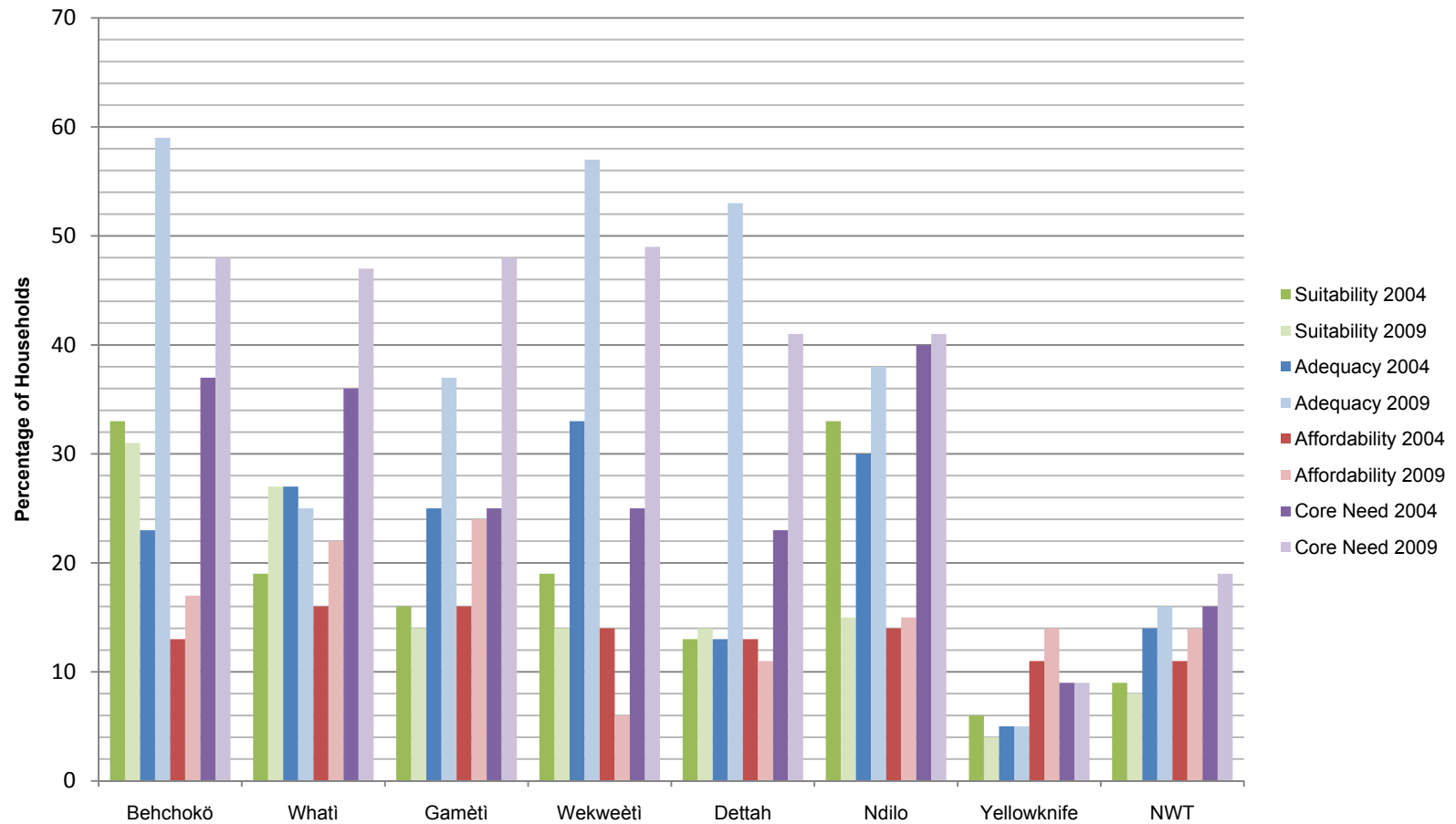
Housing adequacy refers to the physical condition of a dwelling or whether a household has basic facilities to provide a safe and healthy environment. A household has an adequacy problem if the dwelling is:

- without hot and cold running water;
- without an indoor toilet;
- without installed bath or shower;
- without kitchen or bathroom sink; or
- requiring major repairs as evaluated by the household. Major repairs include more serious defects in the structural condition of the dwelling, as well as the plumbing, electrical and heating systems (NWT Bureau of Statistics 2010i).

Housing affordability problems exist when a household pays an excessive amount for shelter. A household has an affordability problem if over 30% of a household's income is paid to shelter costs.

Figure 4.5-1 presents the percentage of households in Yellowknife, Detah, N'Dilo, the Tłıchq communities, and the NWT with housing problems and households in core need. Between 2004 and 2009, the percentage of households in core need in Tłıchq communities increased by 13%. This was due primarily to an increase in Tłıchq households that reported housing adequacy as a problem. While the percentage of Tłıchq households reporting affordability as a problem increased by 4%, the percentage of homes reporting suitability as a problem remained unchanged overall. In Detah, a 40% jump from 2004 to 2009 in the percentage of households reporting adequacy as a problem contributed the most to the percentage of households in core need (18%). Likewise, in 2009, in N'Dilo, the most common problem was adequacy (38% of households). In 2009, 9% of Yellowknife households were in core need, with affordability reported as the most common problem (14% of households). In the NWT overall, 29% of households were in core need in 2009, an increase of 3% from 2004. The most common household problem in the territory in 2009 was adequacy (16% of households).





**Figure 4.5-1 Households by Housing Problem and Core Need, 2004 and 2009**

Sources: GNWT 2004b; NWT Bureau of Statistics 2010i.

Table 4.5-7 shows the number and percentage of households in the study area and the NWT overall that were in need of major repairs between 1981 and 2009. The percentage of households in need of major repairs in the study area has fluctuated considerably between 1981 and 2009. Since 1981, the percentage of homes in need of major repairs in the Tłıchq region and Detah and N'Dilo have been above Yellowknife and territorial averages. The GNWT recently allocated funds for a Settlement Maintainer in Behchokò to better manage maintenance activities (GNWT 2010).

A variety of other housing indicators are used to assess the quality of housing include the percent of households with 6 persons or more (i.e., which can be an indicator of over-crowding and can affect the suitability of housing in a community) (NWT Bureau of Statistics 2010i). Table 4.5-8 presents the number and percentage of households in the study area and the NWT with 6 or more people. Since 1996, the percentage of households with 6 or more people in the Tłıchq region has decreased by 7%; however, this represented an increase of 13 households with 6 or more people. In Detah and N'Dilo this figure has decreased by 19% and 9% respectively over the nearly 20-year reporting period. In Yellowknife there was a slight decline, and in the NWT the percentage of households with 6 or more people declined by 7%. Factors contributing to declines in households with 6 or more people at the territorial level include falling birth rates, increased incomes which can expand housing options for family members, and greater youth migration for educational and work opportunities (GNWT Department of Education, Culture and Employment 2004).

**Table 4.5-7 Household Needing Major Repairs by Community, 1981 to 2009**

Year	Households Needing Major Repairs																	
	Tłıchq		Behchokq		Whati		Gamèti		Wekweèti		Detah		N'Dilo		Yellowknife		NWT	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1981	n/a	n/a	n/a	19	n/a	86	n/a	14	n/a		n/a	33	n/a		n/a	7	n/a	13
1991			37	54		50		43				10				17		
1996			108 <sup>a</sup>	21		68		18				15				18		25
2000	227	39	122	32	47	48	41	59	17	47	11	18	24	30	417	7	1877	14
2001	130 <sup>a</sup>	23	85	22	26	25	19	29	n/a	n/a	9	20	n/a	n/a	580	10	2010	16
2004	160	23	99	21	30	24	19	25	12	33	7	11	23	25	250	4	1668	12
2006	191 <sup>a</sup>	30	131	29	37	32	23	33	n/a	n/a	15	19	n/a	n/a	597	9	2562	18
2009	347	50	271	58	30	25	26	37	20	57	42	53	42	38	270	4	2324	16

<sup>a</sup> not including Wekweèti.

n/a = not available.

Sources: NWT Bureau of Statistics 2004e; 2010i.

**Table 4.5-8 Households with 6 or more People, 1981 to 2009**

Year	Households with 6 or more People																	
	Tłıchq		Behchokq		Whati		Gamèti		Wekweèti		Detah		N'Dilo		Yellowknife		NWT	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1981	..	..	..	49	..	57	..	57	..	..	..	33	..	..	..	6	..	14
1986				46		50		43		..		33		..		5		12
1991				35		62		50		..		29		22		5		10
1996	<b>177<sup>a</sup></b>	<b>34</b>	116	31	25	29	20	36		..		-		23	288	5	<b>1694</b>	9
2001	<b>148<sup>a</sup></b>	<b>27</b>	92	24	37	35	19	29		..	9	20		20	232	4	<b>879</b>	7
2004	<b>169</b>	<b>24</b>	113	24	30	24	16	21	10	28	10	16	20	22	250	4	<b>973</b>	7
2006	<b>177</b>	<b>26</b>	122	27	26	23	19	27	10	29	10	13	..	20	199	3	<b>854</b>	6
2009	<b>190</b>	<b>27</b>	131	28	32	27	19	27	8	22	11	14	16	14	270	4	<b>1017</b>	7

<sup>a</sup> not including Wekweèti.

- = zero or too low to be expressed.

.. = data not available

Sources: NWT Bureau of Statistics 2004e; 2010i.

## **4.5.7 Crime and Safety**

Just as the health and wellness of an individual, family and community depends on access to affordable and adequate shelter, it is also affected by the incidence of crime and family violence in a community (i.e., through its affect on safety). Crime is frequently related to alcohol and drug use (as described below).

Crime rates indicate the types of offences and other related statistics in a community over time. This section describes crime rates and policing for communities in the study area as well as incidences of spousal assault, child protection investigations, and the number of children receiving services from the GNWT Department of Health and Social Services under the *Children and Family Services Act*.

### **4.5.7.1 Crime and Policing**

The RCMP Division Headquarters (“G” Division) is located in Yellowknife, and 21 detachments of varying sizes, including Yellowknife, are located throughout the territory. The cost-shared arrangement for policing requires the Government of Canada to cover 30 percent of the costs, while the GNWT covers 70 percent (Scott Clark Consulting Inc. 2007).

The Criminal Intelligence Service Alberta (CISA) describes policing concerns in the NWT in this way: “The main policing concern related to a non-renewable resource economy [such as the NWT’s mining industry] is the cycle of ups and downs that it generates. Crime rates increase when a community’s economic fortunes rises, but they also increase when the resource is exhausted or when market conditions shut down operations. If prosperity cannot be sustained until crime can level off and decline, then the crime rates become steps in an irreversible process” (CISA 2007, p.5).

In 2006, a public consultation process about crime and policing was held in several NWT communities (Scott Clark Consulting Inc. 2007). Community participants frequently expressed the view that alcohol and drug abuse underlie much of the criminal and anti-social behaviour they witness in their communities. In particular, property crime, domestic violence, assault, and creating a disturbance are seen as directly linked to alcohol or drug abuse in almost every case. Police generally agree with the community assessments that substance abuse is strongly linked to property crimes and personal violence (Scott Clark Consulting Inc. 2007).

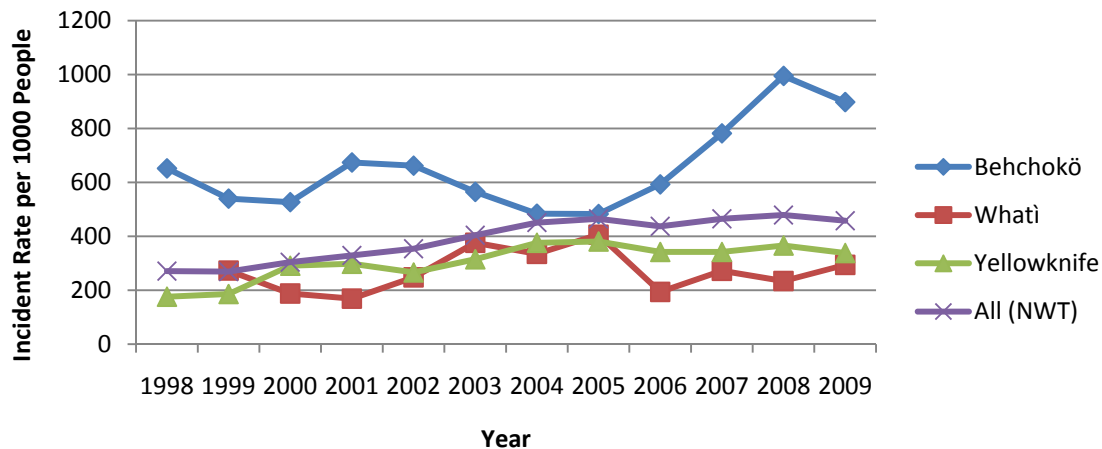
In response to these concerns the GNWT has allocated \$158 000 to support rural

and remote communities in reducing drug and alcohol related crime (GNWT 2010). An additional \$1.1 million has also been earmarked to increase funding for the RCMP to support policing in smaller communities. Included in this funding is \$987 000 to increase the size of smaller RCMP detachments as part of the implementation of the RCMP back-up policy and \$121 million to increase regular RCMP patrols in communities without resident RCMP detachments (GNWT 2010).

While all 4 Tłıchǵ communities have alcohol restrictions, most crimes are committed when people are under the influence of alcohol and/or drug use (Regional Community Justice and Victims Services 2010a-i, internet sites). Community members who attended NICO Project scoping sessions and key informants have expressed concern that, as road access to remote Tłıchǵ communities improve to facilitate economic development, that rates alcohol and drug abuse will increase. The view is that crime rates and drug and alcohol use are higher in Behchokǵ compared to other Tłıchǵ communities due to its location along a permanent highway, which makes it easier for people to bring in alcohol and drugs (i.e., flights to more remote communities are searched by RCMP) and as such, problem drinking (leading to crimes) and drug dealing are facilitated. Along the same lines, it was also noted that crime and substance abuse problems seem to increase in the remote Tłıchǵ communities when the winter road is open.

Figure 4.5-2 shows the rate of incidents per 1000 people by detachment in the study area and the NWT between 1998 and 2009. Between 1998 and 2009, incident rates in Yellowknife and the NWT increased by 92% and 69%, respectively. During the same period, rates in Behchokǵ increased by 38% and are higher than rates in Yellowknife, the NWT and Whatı.

Figure 4.5-3 shows the number and rates of violent crime incidents by detachment between 1998 and 2009. The rate of violent crime incidents in Behchokǵ increased substantially in recent years reaching a high of 216 incidents per 1000 people in 2008. Rates of violent crime incidents are also higher in Behchokǵ than in the NWT, Yellowknife and Whatı. Between 1998 and 2009 violent crime rates in Behchokǵ increased by more than 50%. In contrast, violent crime incidents in Whatı have been declining to late 1990s levels since a high of 119 per 1000 people in 2005. Violent crime incident rates in Yellowknife have increased by 17% between 2000 and 2009.

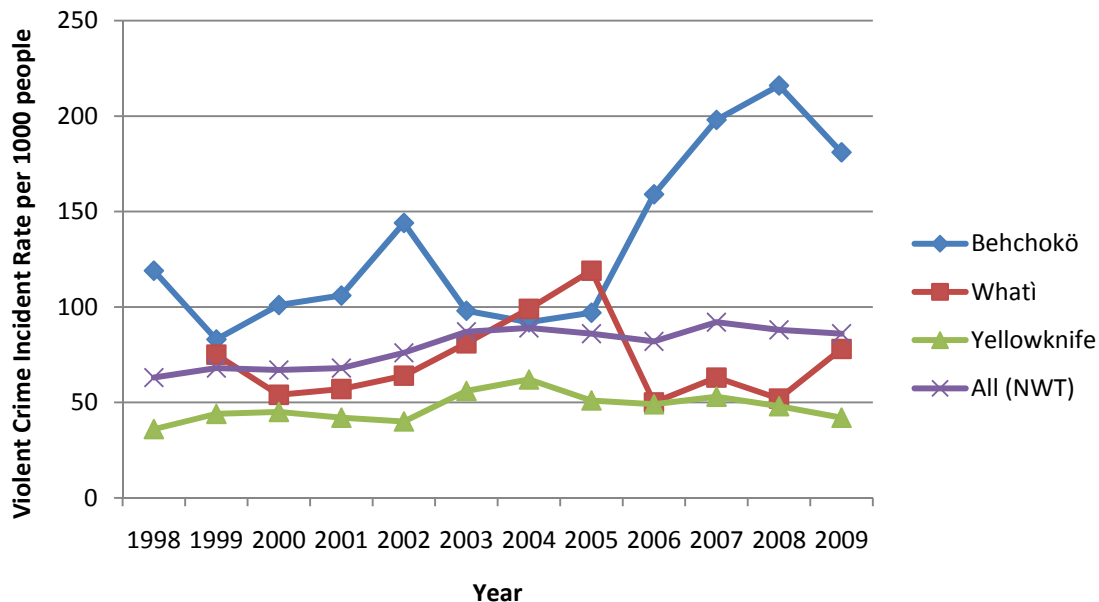


**Figure 4.5-2 Rate of Incidents by Detachment, 1998 to 2009**

Notes: Incidents in a particular detachment may include incidents from surrounding communities. Incidents are reported based on the most serious crime committed. The result is that an incident can represent more than one crime. Actual incidents refer to instances where police have been able to collect evidence that a crime has actually been committed and is the remainder of reported incidents minus those incidents which proved to be unfounded.

Source: NWT Bureau of Statistics 2009g.

Figure 4.5-3 shows the number and rates of violent crime incidents by detachment between 1998 and 2009. The rate of violent crime incidents in Behchokö increased substantially starting about 2005, reaching a high of 216 incidents per 1000 people in 2008. Rates of violent crime incidents were also higher in Behchokö than in the NWT, Yellowknife, or Whatì between 1998 and 2009. Violent crime rates in Behchokö during this period increased by more than 50%. In contrast, violent crime incidents in Whatì have been declining to late 1990s levels since a high of 119 per 1000 people in 2005. Violent crime incident rates in Yellowknife fluctuate but have remained, on average, below 50 per 1000 people. During 1998 to 2009, overall violent crime incident rates increased by 37% in the NWT.



**Figure 4.5-3 Violent Crime Incident Rates by Detachment, 1998 to 2009**

Source: NWT Bureau of Statistics 2009g.

Increases in incident rates have been accompanied by a period of increasing mineral exploration and deposit appraisal activity. Mining has brought jobs and increased incomes to Tłı̨cẖ communities, leading to a greater quality of life for many residents. It is unclear if this increased disposable income has also led to an increase in crime. According to the RCMP, for example, crime in Behchokò has been a problem for many years (D. McLeod, Behchokò RCMP, 2010, pers. comm.). What has been challenging for some residents is the added financial responsibility that comes with steady employment and high incomes. Some of the hard drug (e.g., crack cocaine) and gang problems experienced in other Aboriginal communities (e.g., reserves) in Canada have not been felt to the same degree in Behchokò, and the prisoner count has been dropping over the past few years (D. McLeod, Behchokò RCMP, 2010, pers. comm.).

According to a log of calls to the RCMP and the number of prisoners arrested by month between May 2008 and May 2010, causing a disturbance (relating to public intoxication) was the most common type of complaint in Behchokò, for example, in May 2010 this accounted for over one-third of all calls to the RCMP (Regional Community Justice and Victims Services 2010a-i, internet sites). The number of assault cases per month in this period ranged from a low of 19 in January 2009 to 47 in March 2010 with an average of 31. Violations of the *Liquor Act* were also common and increased considerably after March 2009 (when liquor prohibition came into effect) (Table 4.5-9).



Youth crime appears to be on the rise in Behchokò and Whatì, particularly among males (Table 4.5-10). Male youth crime rates in Behchokò climbed from about 6 per 100 youth in 1998-2000 to about 21 per 100 youth in 2004-2006. Data from 2004-2006 also shows that male youth crime rates per 100 youth were much higher in Behchokò and Whatì compared to Yellowknife and similar to the NWT. Juvenile crime rates for males were more than double those of female youth in 2004-2006 for Behchokò, Whatì, Yellowknife, and the NWT. Youth crime rates were more stable for females in Behchokò and Whatì, and for both genders in Yellowknife and the NWT.

**Table 4.5-9 Behchokò Crime Statistics, 2008 to 2010**

Crime Type	Occurrence Count by Month and Year																				
	May 08	Jul 08	Aug 08	Sep 08	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09	May 09	Jun 09	Jul 09	Aug 09	Sep 09	Dec 09	Jan 10	Feb 10	Mar 10	Apr 10	May 10	Average
Assaults	25	34	30	28	30	19	31	31	28	37	34	32	30	41	31	35	24	47	26	30	31
Break and enters	4	17	15	11	9	3	1	1	2	6	4	4	12	10	3	6	3	3	1	2	6
Theft of motor vehicle	1	1	8	0	2	2	3	3	4	3	3	0	0	1	3	3	1	4	0	2	2
Theft under \$5 000	2	1	1	0	0	0	0	0	0	0	2	1	1	5	0	5	4	0	5	3	2
Liquor act	9	15	11	4	14	16	19	19	48	58	60	81	80	63	49	28	30	46	32	49	37
Drugs	5	2	3	0	5	4	5	5	5	7	4	3	1	2	1	4	1	2	2	1	3
Causing a disturbance/ Liquor Act/ mischief <sup>a</sup>	116	134	124	104	n/a				109	89	84	82	145	95	120	88	71	161	99	126	109 <sup>b</sup>
Impaired driving	27	21	29	15	17	14	24	24	19	18	10	24	31	11	12	20	9	28	18	17	19
Other	81	76	124	41	132	107	127	125	94	105	98	95	123	89	62	87	68	123	100	117	99
Total complaints	270	298	342	204	209	165	210	208	309	323	299	322	425	317	281	281	211	415	283	347	286
No. of Calls to RCMP	260	296	400	n/a	257	215	253	251	309	323	n/a	322	425	n/a	n/a	281	211	415	283	347	303 <sup>b</sup>
Prisoner Count	81	88	86	n/a	n/a	n/a	n/a	n/a	138	132	101	133	169	133	85	86	71	116	87	127	109 <sup>b</sup>

<sup>a</sup> relating to public intoxication.

<sup>b</sup> not including the months where data was unavailable.

n/a = not available

Note: As reported in the Behchokò Community Justice (Nayaeti Doo) Newsletter.

Source: Regional Community Justice and Victims Services 2010a-i, internet sites.

**Table 4.5-10 Juvenile Crime Rates by Detachment, 1996-1998 to 2004-2006**

Years	Juvenile Crime Rate (per 100 male or female youth, 3-Year Average)							
	Behchokò		Whati		Yellowknife		NWT	
	male	female	male	female	male	female	male	female
1996-1998	36.0	..	..	..	8.7	3.2	18.3	7.1
1997-1999	30.3	..	..	..	9.8	3.3	19.0	6.9
1998-2000	5.6	..	..	..	10.1	3.9	18.2	6.8
1999-2001	6.1	8.4	-	-	10.1	4.1	19.8	7.3
2000-2002	9.8	11.4	-	-	10.2	3.9	19.8	7.9
2001-2003	23.8	2.2	23.8	-	9.5	4.5	21.3	8.9
2002-2004	24.4	5.7	35.5	-	9.6	4.2	21.2	9.1
2003-2005	22.6	8.3	66.8	4.6	8.9	4.6	21.6	10.0
2004-2006	21.3	9.7	53.5	4.6	8.9	4.5	20.7	10.0

.. = data not available

- = zero or too low to be expressed

Note: incidents in a particular detachment may include incidents from surrounding communities.

Source: NWT Bureau of Statistics 2007a.

#### 4.5.7.2 Family Violence

The 2010-2011 GNWT Budget includes \$110 000 to expand support services for existing family violence shelters, bringing the total support for the shelters in the fiscal year to \$450 000 plus \$22 000 to increase support services for women and children who experience family violence (GNWT 2010). A further \$67 000 has been added to a pilot program to help men who use violence in intimate relationships to change their behaviour, bringing total investment in the program to \$192 000 in 2010-2011 (GNWT 2010). The program is part of Phase II of the Family Violence Action Plan for 2007 to 2012 (GNWT Department of Health and Social Services 2009b).

The numbers of reported spousal assault cases in the NWT and by RCMP Detachment are shown in Table 4.5-11. The number of reported spousal assault cases has been decreasing since 1999 in the NWT until a spike to 516 cases in 2007. In Behchokò and Yellowknife, the number of cases reported fluctuates annually. Reported cases of spousal assault are not always an indicator of the occurrence of spousal assault in a community. Victims (usually women) are often reluctant to report their partners for many reasons. For example, there may be a fear of intervention by authorities, fear that the abuse will worsen, and sometimes a lack of knowledge that what they are experiencing is not normal (Lockhart 2007). The 2007 *NWT Family Violence Survey* measuring attitudes towards family violence found that the vast majority of respondents believe that the main reason a victim of family violence does not seek help is because they are afraid of the person who is abusing them (NWT Bureau of Statistics 2008b).

Respondents also felt that other reasons victims do not seek help is that they do not want anyone to find out about the abuse.

**Table 4.5-11 Reported Spousal Assault Cases, 1995 to 2006**

Year	Reported Spousal Assault Cases			
	Behchokǝ	Whati	Yellowknife	NWT
1995	39	..	93	<b>451</b>
1996	48		81	<b>443</b>
1997	30		67	<b>402</b>
1998	36		94	<b>461</b>
1999	36	3	123	<b>486</b>
2000	35	..	96	<b>425</b>
2001	29		110	<b>377</b>
2002	52	5	88	<b>333</b>
2003	32	4	86	<b>360</b>
2004	19	5	59	<b>322</b>
2005	..			
2006	29	2	80	<b>309</b>
2007	22	5	94	<b>516</b>
<i>average</i>	<i>34</i>	<i>4</i>	<i>89</i>	<b><i>407</i></b>

.. = data is not available.

Source: GNWT 2008a; GNWT 2009a.

Family violence shelters are available in the NWT for women and their children as a safe place to stay away from abusive partners. Table 4.5-12 shows shelter admissions for women and children in the NWT (data was not available at the community level) between 1999 and 2006. There are 5 women's shelters are available in Yellowknife (3), Fort Smith (1), and Inuvik (1) (GNWT Department of Health and Social Services 2010, internet site). In the Tłıchǝ communities victim services workers are available to provide assistance, information, support and referrals to NWT agencies and GNWT departments. Women in the NWT often have to leave their home communities to access shelter services and with the lack of housing, trauma treatment programs, and other supports to leave an abusive relationship permanently, many return to their home community and their relationships (GNWT 2007b).

**Table 4.5-12 Family Violence Shelter Admissions in the NWT, 1999 to 2008**

Year	Number of Shelter Admissions		Total of Bed Days	Average Bed Days per Woman
	Women	Children		
1999-2000	296	334	7159	24
2000-2001	257	364	8343	32
2001-2002	295	321	8747	30
2002-2003	398	413	7113	18
2003-2004	287	332	6908	24
2004-2005	258	276	6888	27
2005-2006	287	248	6971	24
2006-2007	296	251	6038	20
2007-2008	226	191	6458	29
<b>Average</b>	<b>289</b>	<b>303</b>	<b>7180</b>	<b>25</b>

Note: These numbers are subject to future revisions due to record revisions, data entry delays and database design changes. Fort Smith shelter data was not included for 2004-2005 as it was not in operation for most of that year. NWT data is based on shelter location, not community of residence. Some admissions may be from non-NWT residents. NWT residents seen in non-NWT shelters are not included in the above statistics.

Sources: 1999-2000 to 2006-2007: GNWT 2008a; 2007-2008: GNWT Department of Health and Social Services 2009a; Bed Days: GNWT 2009a.

Between 1999-2000 and 2007-2008, while the number of children admitted to shelters with their mothers has been declining to below average since 2004-2005, the number of women admitted to shelters has remained steady (with a high in 2002-2003). This may be because more single women are seeking shelter or they are not bringing their children. Between 1999-2000 and 2002-2003, shelter admissions increased while the number of reported cases decreased, after which both admissions and cases began to decline to below average levels (i.e., the averages between 1999 and 2006). Rates of family violence shelter use in the NWT are about 4 and 5 times the national rate for women and children respectively (Lockhart 2007).

Although approximately 50% of the NWT population is Aboriginal, and many of the small communities' populations are over 80% Aboriginal, the NWT cannot access federal funding allocated for shelter programming because it is mainly for on-reserve programming. Almost all Aboriginal communities in the NWT are not reserve communities; therefore, these communities do not receive federal funding as would an on-reserve community elsewhere in Canada. Violence against Aboriginal women in Canada is 3 times higher than that of non-Aboriginal women (GNWT 2007b). In 2005-2006, 80% of women who were admitted to family violence shelters in the NWT were of Aboriginal or Inuit ancestry (Lockhart 2007).

Child maltreatment continues to be an issue in the NWT (GNWT Department of Health and Social Services 2008b). Child maltreatment is addressed through a variety of interventions including: in-home support services; supervision; apprehensions; and, other services to children and families (GNWT Department of Health and Social Services 2008b). On average, an annual 2205 investigations are done by Child Protection Workers and on any given day, there are 650 children receiving services under the *Child and Family Services Act* (GNWT Department of Health and Social Services 2008b). For 43 percent of these children, the parents have retained full custodial rights and work in partnership with the Child Protection Worker to provide for the child's needs and ensure the child's safety and well-being (GNWT Department of Health and Social Services 2008b).

Table 4.5-13 shows the number of screening reports for child protection investigations in the NWT (community level data is not available) from 2000 to 2006. Before 2002-2003 a screening report may not have led to an investigation. In that year, a procedural change was made so that all screening reports were investigated. The number of investigations between 2000 and 2006 has decreased overall and the procedural change does not seem to have led to an increase in investigations. Table 4.5-12 also shows the number of children receiving services from the GNWT Department of Health and Social Services in Yellowknife, Tłı̄chq communities and the NWT.

**Table 4.5-13 Children Receiving Services and Child Protection Investigations, 1993-1994 to 2006-2007**

Year	Children Receiving Services						Child Protection Investigations
	Behchokq	Whati	Gameti	Wekweeti	Yellowknife	NWT	NWT
1993-1994	23	-	-	5	145	422	not available
1994-1995	59	10	-	-	186	540	
1995-1996	50	7	6	7	183	584	
1996-1997	27	5	-	8	198	574	
1997-1998	35	12	-	7	211	554	
1998-1999	34	13	7	-	202	632	
1999-2000	23	13	8	-	282	..	
2000-2001	55	9	0	0	289	808	2638
2001-2002	89	12	-	0	301	920	2383
2002-2003	63	9	0	0	312	929	2637
2003-2004	93	5	0	0	278	936	2460
2004-2005	115	13	-	0	313	1021	2463
2005-2006	100	17	12	-	328	1013	2020

**Table 4.5-13 Children Receiving Services and Child Protection Investigations, 1993-1994 to 2006-2007 (continued)**

Year	Children Receiving Services						Child Protection Investigations
	Behchokǫ	Whati	Gamètì	Wekweètì	Yellowknife	NWT	NWT
2006-2007	88	10	14	-	325	1058	..
2007-2008	92	9	-	-	308	986	..

- = values less than 5 have been suppressed.

.. = data was unavailable

Note: These numbers are subject to future revisions due to record revisions, data entry delays and database design changes. N'Dilo and Detah numbers are included in Yellowknife, as residency for children in these communities is often recorded as Yellowknife by the child welfare worker.

Sources: GNWT 2009a; NWT Bureau of Statistics 2007a.

The number and rates of children receiving services may have increased since the late 1990s due to the *Children and Family Services Act* which came into force in October 1998 (GNWT 1997). The Act created a plan of care agreement as a new way to provide services to children. Under the plan of care agreement, children could still be living in their parents' home but receive services from the Department of Health and Social Services. An equivalent category to "a plan of care agreement" did not exist under the previous Act. Most of the increase in numbers of children receiving services from the Department of Health and Social Services has been for children who are living at home; of these children receiving services in their homes, most service arrangements originated through voluntary agreements as opposed to court orders (GNWT 2008a).

## 4.6 CULTURE AND LANGUAGE

The VC of "culture and language" is defined by preserving the practice of and the opportunities to practice traditional activities and language in potentially affected communities. The indicators used to measure change in cultural practice and Aboriginal language use are the availability of culture and language programs; the number of Aboriginal teachers; the population 15 and over engaged in traditional activities (i.e., trapping, hunting, and fishing); consumption of country food; and the use of Aboriginal languages by Aboriginals (i.e., mother tongues, home language use and ability to converse). Cultural and language programs and teaching resources are summarized in Appendix II. These quantitative indicators, when considered with observations and trends identified through key informant interviews and in the literature, can begin to illustrate the importance of cultural practices and language in the study area. The Traditional Land Use and Historical Resource sections of this volume also provide additional details about the cultural history of the Tłıchǫ and Métis communities that may be affected by the NICO Project. The following sections

discuss publicly available information and interview results about traditional activities and language use in the study area.

Those who attended the scoping session in Gamètì on 7 May 2009 expressed concern that employment at the mine will decrease opportunities to practice traditional activities (MVEIRB 2009b). For people employed by a mine, who work long daily hours and a 2-week on/off schedule, less time may be available to spend on the land hunting and fishing (Gibson and Klinck 2005). Workers may prefer to spend their time off at home with their families or simply resting from work (NSMA 2001). Men of working age who traditionally do the hunting are therefore unable to learn traditional skills and ecological knowledge from elders, or pass this knowledge to younger generations; decreased knowledge transfer and practice of traditional activities may also signal the loss of associated knowledge (Gibson and Klinck 2005).

The data in the following sections provides some indication of engagement in traditional activities (i.e., trapping, hunting, and fishing), consumption levels of country food and use of Aboriginal languages.

#### **4.6.1 Trapping, Hunting and Fishing**

Table 4.6-1 shows the percent of the population age 15 and older in the NWT, Yellowknife, N'Dilo, Detah, and the Tłı̨chǫ communities who trapped in the previous year. Trapping activity in the Tłı̨chǫ communities is fluctuating but seems to be trending down. Of the Tłı̨chǫ communities, Wekweètì had the highest representation of trappers (22%) in the study area in 2009 and Behchokǫ had the lowest representation (12%). In Detah, trapping activity reached a ten year high in 2004 and decreased by 5% between 2004 and 2009. Trapping by Yellowknife residents has remained low while in the territory overall the activity seems to have levelled off, with 6% of residents having engaged in trapping in this period.

The 2008 *Communities and Diamonds* report (GNWT 2009a) associated increased trapping activity in the smaller communities between 1999 and 2004 with higher incomes and an increase in rotational work at mines. Recent data however, suggests this trend is reversing in Behchokǫ, Gamètì, and Detah (trapping activity has continued to increase in Whatì and Wekweètì).

Fur production statistics are available at the territorial level for 1998 to 2007. Data excludes pelts sold privately or kept for personal use (Table 4.6-2). No apparent relationship exists between the number of trappers and either the pelt values or the number of furs harvested. Average fur prices have seen a recent



increase to record highs resulting in record years in total monies paid to NWT trappers, a pattern not seen since 1996-1997. Total pelt harvest was 23 878 pelts in 2007. Average prices per pelt fell for some important species (e.g., marten and lynx) in this period (GNWT 2008b), resulting in about 8% reduction of the total value of pelts. While the increase in average pelt value between 2004-2005 and 2005-2006 was the highest increase since 1999, there was little change between the 2005-2006 and 2006-2007 fiscal years.

In the 2006-2007 fiscal year, pelts were harvested from 22 separate species (GNWT 2008b). Marten pelts accounted for three-quarters of the total value of the fur harvest, a share almost unchanged from the previous year (GNWT 2008b). The number of marten pelts sold increased by 38%, but the average value per marten pelt fell by about 30% (GNWT 2008b).

**Table 4.6-1 Trapping Activity by Community, 1989 to 2009**

Survey Year	Population (age 15 and older) who Trapped in the Year before the Survey																	
	Tłıchq		Behchokq		Whati		Gamètı		Wekweètı		Detah		N'Dılo		Yellowknife		NWT	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1989	285	21	140	15	72	30	46	34	27	35	11	11	not available		92	1	1832	8
1994	125	8	88	8	16	6	10	6	11	12	15	10			125	1	1404	5
1999	210	12	129	11	19	6	45	24	17	15	23	15			263	2	1770	6
2004	278	14	192	15	29	8	36	17	21	19	38	25			145	1	1880	6
2009	267	13	165	12	54	15	30	14	18	22	36	20	37	14	158	1	2024	6

Sources: NWT Bureau of Statistics 2009h; N'Dılo: NWT Bureau of Statistics 2010d.

**Table 4.6-2 Fur Harvests in the NWT, 1998 to 2007**

Year	Total Pelt Value (\$)	# of Furs Harvested	Average Price/Fur (\$)
1998-1999	439 921	14 952	29.42
1999-2000	842 049	37 124	22.68
2000-2001	477 365	13 092	36.46
2001-2002	849 527	18 445	46.06
2002-2003	751 349	31 848	23.59
2003-2004	812 312	23 536	34.51
2004-2005	970 350	42 725	22.71
2005-2006	1 409 845	23 967	58.82
2006-2007	1 303 269	23 878	54.58
<b>Average</b>	<b>877 689</b>	<b>28 396</b>	<b>33.87</b>
<b>Median</b>	<b>842 049</b>	<b>23 967</b>	<b>29.42</b>
<b>Range</b>	<b>439 921 – 1 409 845</b>	<b>13 092 – 42 856</b>	<b>22.68 – 58.82</b>
<b>Total</b>	<b>9 654 579</b>	<b>312 357</b>	<b>30.91</b>

Source: NWT Bureau of Statistics 2008c.

Lynx, which accounted for 22% of the harvest value, experienced a decline of 4.5% in average number of pelts marketed and a small drop in price per pelt to \$144.35 (GNWT 2008b). The remaining species accounted for less than 3% of the value of the harvest (GNWT 2008b).

In the Tłı̄chǫ communities, marten and muskrat are by far the most trapped species yet they differ substantially from each other in price, with the latter fetching over \$100 per fur on average and the former under \$10 per fur (GNWT Department of Industry, Tourism and Investment 2007b). Average pelt values of each species vary depending on the condition of the furs at the time of sale (GNWT Department of Industry, Tourism and Investment 2007b).

Table 4.6-3 shows the percentage of the population age 15 and older who were engaged in hunting or fishing in the NWT, Yellowknife, N'Dilo, Detah, and the Tłı̄chǫ communities in 1999, 2004, and 2009. The percentage of the population engaged in hunting or fishing has declined slightly in the NWT. Behchokǫ was the only community where hunting and fishing activity increased from 1999 to 2009 (with an increase of 254 hunters and anglers). Hunting and fishing activity was highest in Wekweètì. It is the only community where over half of the population aged 15 and over engaged in hunting and fishing in 2009.

In response to a decline in the Bathurst Caribou herd, an interim emergency hunting ban was established on 1 January 2010, which prohibits all hunters from harvesting caribou in a no-hunting zone: the Bathurst herd's winter range, north of Great Slave Lake to the Nunavut border. It is unclear at this time what the implications of this recent hunting ban might have on traditional activities and the cultural value of food sharing (Lutra Associates 2010). The Yellowknives Dene First Nation were not prepared for the loss of access to a harvest of up to 5000 animals (450 000 lbs of meat). To compensate for the ban, the GNWT has offered affected communities permits to hunt bison and also agreed to subsidize expeditions to hunt caribou herds outside of the restricted Bathurst Range (Lutra Associates Ltd. 2010; CBC News 2010, internet site).

## **4.6.2 Consumption of Country Food**

Table 4.6-4 shows the percent of households reporting that half or more of the meat or fish consumed is harvested in the NWT and the study area communities. Consumption of country food has fluctuated in the small communities, with a downward tendency for Wekweètì, but it is still practiced by over 70% of

**Table 4.6-3 Hunting and Fishing Activity by Community, 1999 to 2009**

Survey Year	Population Age 15 and Older Engaged in Hunting or Fishing																	
	Tłıchq		Behchokq		Whati		Gamèti		Wekweèti		Detah		N'Dilo		Yellowknife		NWT	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1999	659	37	294	25	205	66	81	43	79	71	74	49	..	..	5256	40	12 393	42
2004	761	39	449	35	154	43	88	42	70	64	65	43	..	..	4651	32	11 596	37
2009	817	40	522	38	169	47	81	38	45	56	71	39	97	37	5521	35	13 155	39

.. = data is not available

Source: NWT Bureau of Statistics 2009b; N'Dilo: NWT Bureau of Statistics 2010d.

**Table 4.6-4 Consumption of Country Food, 1994 to 2009.**

Survey Year	Households Reporting that Half or More of the Meat or Fish Consumed is Obtained through Hunting and Fishing																	
	Tłıchq		Behchokq		Whati		Gamèti		Wekweèti		Detah		N'Dilo		Yellowknife		NWT	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1994 <sup>a</sup>	..	..	..	50	..	71	..	81	..	81	..	61	..	..	..	9	..	26
1999 <sup>a</sup>	..	..	..	80	..	76	..	56	..	84	..	93	..	..	..	11	..	30
2004 <sup>b</sup>	467	66	297	63	91	73	57	75	27	75	43	67	64	70	626	10	3893	28
2009 <sup>c</sup>	511	74	341	73	92	78	52	73	23	66	56	70	50	45	742	11	4066	28

.. = data is not available

<sup>a</sup> = GNWT 2008a.

<sup>b</sup> = NWT Bureau of Statistics 2010c.

<sup>c</sup> = NWT Bureau of Statistics 2009c; N'Dilo: NWT Bureau of Statistics 2010d.

households in the Tłıchq region and Detah. Data is not available on why Wekweètì has seen the largest decrease in consumption over this time period. Small changes in the number of households can result in large changes in the percentage of households that respond to each survey. Consumption of country food in Yellowknife and the NWT overall has remained relatively constant in these years.

### **4.6.3 Use of Aboriginal Languages**

The NWT has 11 official languages, including English and French. The GNWT must provide government services in the official languages in accordance with the NWT *Official Languages Act* (GNWT 1988). The government has identified this as a challenge, especially in Aboriginal languages, due to an insufficient number of trained personnel to provide interpretation and/or translation services (GNWT 2009b). To meet this challenge, the GNWT Department of Education, Culture and Employment developed an Aboriginal Interpreter/Translator training program. The pilot was held in 2007 and 2008 in Fort Resolution, Yellowknife, and Lutsel K'e. A list of those who complete the training was to be published and distributed to community and government services and an Interpreter/Translator training module was to be developed and made available to other Aboriginal language communities (GNWT 2009b).

In a recent public review of the *Official Languages Act*, Tłıchq participants noted that funding for the Aboriginal Language and Cultural Instructor Program (ALCIP) and Teacher Education Program (TEP) at Aurora College should increase (Standing Committee on Government Operations 2009). They felt that younger people have fewer opportunities to experience traditional lifestyles and are more influenced by English as the language of modern society. Because many parents do not practice their language and culture at home anymore, expectations towards the school system's responsibility for language acquisition have increased. Increased funding and training was viewed as a way to increase the number of language and cultural instructors that can be employed in Tłıchq schools and reverse the decline of the use of Tłıchq (Standing Committee on Government Operations 2009). For more information on the ALCIP and TEP please refer to Appendix II.

With all the rapid changes taking place in the Tłıchq communities, concern exists among many people about the impact on family life, and on the family's ability to preserve their traditional culture and language (TCSA 2006). Some are particularly concerned about the influence of all these changes on children and young people. Dramatic losses in Tłıchq language ability have been noted in young children entering school for the first time (TCSA 2006).

All Tłıchǫ schools offer language instruction and on-the-land activities as well as locally created culturally-based courses. While the number of people that speak an Aboriginal language remains high, concern remains about the language abilities of children entering school. Interviewees in Whatı and Gamèti felt that children under the age of 10 or so are less inclined to speak or simply do not understand the Tłıchǫ language.

The Tłıchǫ communities are concerned about the preservation of traditional knowledge and Tłıchǫ culture. Some scoping session participants have observed that many young children and teenagers no longer speak Tłıchǫ outside the home and this has increased the cultural gap between youth and elders (MVEIRB 2009b). Tables 4.6-5, 4.6-6, and 4.6-7 show various language indicators for the study area. Unfortunately, while there is data on home language use, there is no quantitative data about language use outside the home.

The following trends and observations are based on the data presented in the above tables:

- Almost all the Aboriginals living in Tłıchǫ communities speak an Aboriginal language.
- In 2009, Aboriginal languages were less common in Detah than in Tłıchǫ communities. This is perhaps due to the communities' proximity to the predominantly English-speaking Yellowknife population.
- Between 1989 and 2009, Aboriginal language use by Aboriginals declined by about 6% in the Tłıchǫ communities and by about 35% in Detah.
- While there was a slight increase in the percentage of Yellowknife Aboriginal residents that spoke an Aboriginal language between 1999 and 2006, this may have been due to the in-migration of Aboriginal people from surrounding communities. By 2009; however, Yellowknife saw a decrease in the percentage of Aboriginal residents who spoke an Aboriginal language.
- Assuming that those who use an Aboriginal language (i.e., Tłıchǫ or North or South Slavey) as their home language also have that same language as their mother tongue, between 1986 and 2006 there has been a decline in the ratio of mother tongue to home language use.
- In most cases, the proportion of the population with the ability to converse in English, Tłıchǫ, and North Slavey in the study area and the NWT overall remained stable between 1989 and 2004. The largest change occurred between 1989 and 2004 when the proportion of the Tłıchǫ community population, 15 years of age and older able to converse in English, increased over 10%.

**Table 4.6-5**    **Aboriginals that Speak an Aboriginal Language**

Year	Aboriginals (15 years of age and older) that Speak an Aboriginal Language																	
	Tłı̨ch̨q		Behchok̨		Whati		Gamètì		Wekweètì		Detah		N'Dilo		Yellowknife		NWT	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1989	1329	96	878	94	239	99	134	100	78	100	95	94	..	..	3402	37	12 826	56
1994	1578	97	1057	96	256	98	174	100	91	99	132	89			4256	34	14 036	50
1999	1750	98	1153	98	304	98	185	98	108	97	117	77			2891	22	13 278	45
2004	1850	95	1192	93	346	97	207	99	105	96	125	83		61	3633	25	13 790	44
2006	..														3766	26	13 390	43
2009	1736	90	1126	89	335	93	199	93	76	94	109	60	121	46	2840	18	10,119	20

.. = data is not available.

Sources: NWT Bureau of Statistics 2009d; N'Dilo: NWT Bureau of Statistics 2010d.

**Table 4.6-6**    **NWT Tłı̨ch̨q and Slavey Language Indicators, 1986 to 2006**

Year	Population  NWT	Language											
		Tłı̨ch̨q						North and South Slavey <sup>b</sup>					
		Mother Tongue		Home Language		Ability to Converse		Mother Tongue		Home Language		Ability to Converse	
		#	% <sup>a</sup>	#	%	#	%	#	%	#	%	#	%
1986	33 640	1890	6	1510	5	x	x	2240	7	1275	4	x	x
1991	36 230	2100	6	x	x	2385	7	2255	6	x	x	2825	8
1996	39 460	2000	5	1355	3	2395	6	2085	5	1190	3	2640	7
2001	37 105	1835	5	500	1	2255	6	1835	5	380	1	2605	7
2006	41 055	2040	5	1095	3	2545	6	2170	5	975	2	2840	7

a = Percentage of total NWT population.

b = Historical data was not available for the North and South Slavey languages separately.

x= suppressed for reasons of data quality of availability.

Notes: "mother tongue" is the language first learned in childhood and still understood; "home language" is the language spoken most often or on a regular basis at home; and "ability to converse" is a person's self-reported ability to speak a language. Due to problems with coverage for the 2001 census, NWT results from this census should be used with caution.

Source: NWT Bureau of Statistics 2006b.

**Table 4.6-7 Ability to Converse by Language and Region, 1989 to 2004**

Year	Tłıchq Communities						Yellowknife and Detah						NWT					
	English		Tłıchq		North Slavey		English		Tłıchq		North Slavey		English		Tłıchq		North Slavey	
	#	% <sup>a</sup>	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1989	1085	78	1201	87	36	3	9276	100	250	3	78	1	22 237	97	1511	7	1054	5
1994	1320	81	1403	86	39	2	12 554	99	318	3	91	1	27 167	97	1818	7	1202	4
2004	1758	90	1672	85	63	3	14 314	99	458	3	117	1	30 674	98	2167	7	1031	3

<sup>a</sup>= Percentage of the total population age 15 and over.

Note: The total of all languages may exceed the population age 15 and over as some persons speak multiple languages.

Source: NWT Bureau of Statistics 2004f.



In 2006, 54% of people with Tłıchǫ as their mother tongue also used it as their home language. This is down from 68% in 1996 and 80% in 1986 (Standing Committee on Government Operations 2009). Tłıchǫ communities are now facing a generation of speakers that speak neither English nor Tłıchǫ as well. Language specialists are concerned about the impact this may have on language development and acquisition among Tłıchǫ children (Standing Committee on Government Operations 2009).

The *Royal Commission on Aboriginal Peoples* states that the initiative and responsibility for the revitalization of Aboriginal languages should reside with Aboriginal language communities and the role of the government should be to support their efforts (GNWT 2009b). On that basis, the GNWT committed to continue to make contributions to language and cultural education programs. In the 2010-2011 Budget, the GNWT set aside \$233 000 to establish an annual summer language symposium to focus on revitalization and maintenance of Aboriginal languages (GNWT 2010).

The Tłıchǫ Language Centre provides services and support to both Tłıchǫ schools and community at large. The Centre also works closely with linguists from the University of Victoria's Aboriginal Language Revitalization Program to advance its activities in language preservation, terminology development, and revitalization (Standing Committee on Government Operations 2009). Activities include digitizing historic materials to preserve materials that document the culture and traditions of the Tłıchǫ people. The Centre also continues to expand its online Tłıchǫ dictionary and works on terminology development in an attempt to keep the Tłıchǫ language current. Parenting workshops are also available to promote Tłıchǫ as the home language. Centre staff stress that youth and children are interested in their language, but they are not engaged in it. To involve this generation, the Centre hopes to develop promotional activities that can tap into this interest and demonstrate that Tłıchǫ is adaptable to modern times (Standing Committee on Government Operations 2009). They recognize that effective support for language revitalization must come from the community government and the community leaders. The leaders need to recognize the crucial role they play in promoting the use of their language (Standing Committee on Government Operations 2009).

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## 5 CONCLUSIONS

The population of the NWT has been experiencing very little growth and high out-migration. A recent survey concluded that people are leaving the territory (especially Yellowknife) mainly because of the high cost of living. Communities in the NWT are small and spread out over a very large area which makes costs of power generation and transportation, including transportation of goods (and thus the cost of these goods) very high. If the NWT can attract more economic growth and encourage people to move and stay in the territory, the GNWT's position is that over time the overall cost of living would decrease. The study area communities are growing modestly (about 1% a year since 1996) with a higher growth period in the mid-2000s in Behchokò. During this period, the establishment of the Tłı̨chǫ Government (and new government jobs) occurred in conjunction with increasing mine-related employment with Tłı̨chǫ companies. As a result more Tłı̨chǫ families were choosing Behchokò as a base.

While increasing employment opportunities (especially in the mining sector) have influenced increases in educational attainment overall, attainment of a high school diploma or greater is still much lower in the smaller study area communities compared to Yellowknife and the NWT as a whole. The need to relocate for high school is a barrier for students in Gamètì and Wekweètì. Low attendance has contributed to lower levels of achievement and has been related to factors such as inadequate parental supervisions (working on rotation), the legacy of the residential school system, and problems in the home (e.g., alcohol). Other administrative changes in NWT schools have also contributed to declines in enrolments (and records of official enrolments) in schools across the territory.

Not surprisingly, the growing demand for labour in the territory has led to increasing participation and employment rates in study area communities. However, as with educational attainment, these rates are lower in Tłı̨chǫ and Yellowknives Dene communities when compared to the territory and Yellowknife. Smaller communities have fewer and limited job and career opportunities compared to larger centres and lower educational attainment rates are likely having an effect on the size of the labour pool. Some of those that are unemployed or not participating in the labour force face barriers to employment including literacy, adequate training and education opportunities, criminal records, substance abuse issues, and others (see NAHO 2008). The government, schools and industry are seeking to address these challenges in an effort to increase the labour force and create more economic and employment opportunities for Northern residents. There is growing demand for skilled labour, especially in mining, and it has become more and more challenging to meet these needs in the North. Key informants suggest that those that are employable are employed and that as a result companies are hiring outside the NWT to fill skilled and professional level positions in their workforce.

With increasing employment have also come increasing average incomes in all study area communities and the NWT as a whole. Average incomes are increasing faster in Tłıchq communities than in Yellowknife and the NWT but remain 30-40% lower. While about 1 in 4 Tłıchq families earn less than \$30 000 per year this figure is decreasing. The income gap is also narrowing in Tłıchq communities and widening in Yellowknife and NWT. Overall, the number of lower income earners is decreasing and the number of higher income earners is increasing.

Hardships associated with lower income levels are exacerbated by high costs of living in the north and the costs of living are highest in the smaller communities where incomes are lowest. The availability of subsidies for housing costs, food and clothing help to keep these costs down in the Tłıchq and Yellowknives Dene communities but the cost of housing continues to increase in small and larger communities alike. As average incomes have increased, the number of income assistance beneficiaries has decreased. Due to high and escalating costs of living monthly income assistance payments have also increased in recent years.

Many indicators of health and wellness are improving in the NWT and in study area communities. Collision rates are decreasing and on average there are fewer injuries. Smoking is decreasing (but still high compared to the rest of Canada), as are rates of premature death (i.e., Potential Years of Life Lost). Key health concerns include STI rates, tuberculosis, diabetes, cancer, and respiratory diseases (related to smoking) and health and social problems associated with alcohol and drug use.

Adequate, affordable, and suitable housing are important to the health and well-being of families in all communities. Increasing problems related to housing adequacy has been the main contributor to increasing rates of households in core need in the Tłıchq and Yellowknives Dene communities. As expected, affordability of housing is the most common housing problem in Yellowknife. Crowding in study area communities has been decreasing, which has contributed to decreasing housing suitability problems. Factors contributing to less crowding include falling birth rates, increased incomes which expand housing options for family members, and greater youth migration for education and work opportunities.

Incidences of crime affect the health and wellness of communities in as much as it affects whether people feel and are safe in and outside the home. Increasing crime rates (including violent crime) in the NWT and in smaller communities is related to the prevalence of alcohol and drug use (i.e., those that commit crimes are often under the influence of alcohol and drugs and purchasing and selling alcohol in and of itself is legally prohibited in all Tłıchq communities). The prohibition of alcohol in Tłıchq communities means that higher rates of *Liquor*

*Act* violations contributes to a higher number of individuals with criminal records and inflated crime rates. There are concerns from residents that by increasing access to remote Tłıchq communities to facilitate economic development, crime will increase. The view is that crime rates are higher in Behchokò compared to other Tłıchq communities due to its location along a permanent highway, which makes it easier for people to bring in alcohol and drugs thus facilitating problem drinking and drug dealing which lead to other crimes.

Family violence is a significant concern in the NWT due to higher than national rates of violence against women, and especially Aboriginal women. Due to the reluctance of many victims to report spousal assault the number of cases is not always an indicator of the occurrence of family violence in a community. Overall, reported spousal assault cases are decreasing in the NWT despite a spike in 2007. While the number of spousal assault cases is decreasing shelter admissions for women have changed very little in recent years with no apparent trend.

As employment opportunities increase and more emphasis is placed on entering the wage economy over time, there is growing concern regarding the maintenance of traditional activities and language. In the Tłıchq communities trapping, hunting and fishing are common activities and are most common in the smallest and most remote community, Wekweètì. Trapping activity has decreased in all Tłıchq and Yellowknives Dene communities in the most recent years surveyed. Since 1999, the percentage of the NWT residents that traps has remained stable at 6%. Hunting and fishing activity has increased in Behchokò which has offset declines in the other Tłıchq communities. Hunting and fishing activity also seems to be on the decline in Detah, Yellowknife and the NWT as a whole. Declines in these activities do not seem to have affected access to and consumption of country food which increased between 2004 and 2009 in Tłıchq communities as a whole and Detah. About 3 quarters of Tłıchq residents, and over half of Dene households eat country food as more than half of all fish and meat consumed.

With respect to language use, while over 90% of Tłıchq and Yellowknives Dene community residents speak an Aboriginal language, the rate is decreasing. Detah and N'Dilo have seen the largest decrease in Aboriginal language use and knowledge in the study area due in large part to its proximity to the predominantly English-speaking Yellowknife. Previous increases in Aboriginals that speak an Aboriginal language in Yellowknife have been attributed to immigration from smaller communities. The more recent declines suggest that the Aboriginal population of Yellowknife is no longer speaking Aboriginal languages. In the NWT, the ability to speak an Aboriginal language in the Aboriginal population decreased by 26% between 1989 and 2009.

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## **7 GLOSSARY OF TERMS**

### **7.1 LIST OF ACRONYMS AND ABBREVIATIONS**

AADT	Annual Average Daily Traffic
ADI	Aboriginal Diabetes Initiative
ALBE	Adult Literacy and Basic Education
ALCIP	Aboriginal Language and Cultural Instructor Program
AOC	Apprenticeship and Occupational Certification
ASEP	Aboriginal Skills and Employment Partnership
CEPP	Community Education Preparation Program
CIET	Centro de Investigación de Enfermedades
CISA	Criminal Intelligence Service Alberta
CNIT	Core Need Income Threshold
CPNP	Canada Prenatal Nutrition Program
CRRU	Childcare Resource and Research Unit
DAR	Developer's Assessment Report
FASDP	Foetal Alcohol Spectrum Disorder Program
Fortune	Fortune Minerals Limited
FPT	Federal-Provincial-Territorial
FTE	Full-Time Equivalent
GDP	Gross Domestic Product
GNWT	Government of the Northwest Territories
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
IBA	Impact-Benefit Agreements
INAC	Indian and Northern Affairs Canada
KCTC	Kimberlite Career and Technical Centre
LHO	Local Housing Organization
MTS	Mine Training Society
MVEIRB	Mackenzie Valley Environmental Impact Review Board
NABA	Northern Aboriginal Business Association
NAYSPS	National Aboriginal Youth Suicide Prevention Strategy
NNADAP	National Native Alcohol and Drug Abuse Program
NSMA	North Slave Métis Alliance
NTPC	Northwest Territories Power Corporation
NWMOG	Northern Women in Mining, Oil and Gas
NWT	Northwest Territories



NWTHC	Northwest Territories Housing Corporation
NWTSFA	Northwest Territories Student Financial Assistance
PEP	Progressive Experience Program
PSADT	Peak Summer Average Daily Traffic
PYLL	Potential Years of Life Lost
REP	Relevant Experience Program
SAEE	Society for the Advancement of Excellence in Education
SON	Subjects of Note
STI	Sexually Transmitted Infection
TCSA	Tłıchq Community Services Agency
TEP	Teacher Education Program
TIC	Tłıchq Investment Corporation
TOWES	Test of Workplace Essential Skills
VC	valued component

**APPENDIX I**

**NWT SOCIAL INDICATORS**

In 2002, the Social Agenda Working Group of the NWT Bureau of Statistics developed a list of 20 social indicators that could be used to monitor social conditions at the community level (wherever possible) (NWT Bureau of Statistics 2003). Table I-1 summarizes the trends in the study area for each of the 20 NWT social indicators/VCs.

**Table I-1 Summary of Trends for NWT Social Indicators**

<b>NWT Social Indicator</b>	<b>Latest Years Available</b>	<b>Communities Available</b>	<b>Trend Direction</b>	<b>Positive or Negative Trend</b>	<b>Report Section</b>
Population Dependency Ratios	1981 to 2006	all communities, except N'Dilo	decreasing ratio between dependents and the working age population	positive	4.2.2 Age and Gender
Population Mobility	1986 to 2006	all communities, except N'Dilo	- decreasing in NWT and Yellowknife - no change in Tłı̄chǫ or Yellowknives Dene communities	neutral	4.2.3 Population Change
Population with at Least High School	1986 to 2009	all communities	increasing	positive	4.3.2 Enrolment and Graduation
High School Graduation Rate	2004 to 2009	Tłı̄chǫ Region, Yellowknife, N'Dilo and Detah (total only)	- decreasing in Tłı̄chǫ communities and Yellowknife - no trend available for N'Dilo and Detah	negative (although number of graduates is increasing)	4.3.2 Enrolment and Graduation
Employment Rate	1986 to 2009	all communities, (N'Dilo, 2009 only)	- increasing in Tłı̄chǫ and Yellowknives Dene communities - no change in Yellowknife and NWT	positive and neutral	4.4.3 Labour Force Characteristics
Lone Parent Families	1986 to 2006	all communities, except N'Dilo	- no change in Tłı̄chǫ communities, Yellowknife and NWT - increasing in Detah	neutral and negative	4.4.4 Income
Children Living in Low Income Households	1998 to 2007	NWT, Yellowknife, Behchokǫ̀, Whatı̄, Gamèti	decreasing	positive	4.4.4 Income

**Table I-1 Summary of Trends for NWT Social Indicators (continued)**

<b>NWT Social Indicator</b>	<b>Latest Years Available</b>	<b>Communities Available</b>	<b>Trend Direction</b>	<b>Positive or Negative Trend</b>	<b>Report Section</b>
Employment Income	1994 to 2007	not available for Detah, N'Dilo or Wekweètì	increasing	positive	4.4.4 Income
Income Disparity	2002 to 2007	not available for Detah, N'Dilo or Wekweètì	decreasing	positive	4.4.4 Income
Death Rate from Accidents, Suicides and Homicides	2004: Behchokò, Yellowknife and NWT 2003: Whatì 1997: Wekweètì and Detah	all communities, except N'Dilo and Gamètì	no change	neutral	4.5.1 Injuries and Suicides
Sexually Transmitted Disease Rate	1996 to 2006	all communities, except N'Dilo. Data for Detah was too low to be expressed	increasing	negative	4.5.5 Sexual Health
Incidence of Heavy Alcohol Use	2002 to 2006	NWT (2002 to 2006) Yellowknife, regional centres and the rest of communities (2004 and 2006 only)	- decreased % of people drinking 5 or more drinks on one occasion (persons 15 and over in small communities and NWT) - increased % of people drinking 5 or more drinks on one occasion (persons 15 and over in Yellowknife and regional centres) - increased % of people drinking over once a week (persons 15 and over in NWT, Yellowknife, regional centres and rest of communities)	positive and negative trends	4.5.2 Alcohol and Drug Use
Households in Core Housing Need	2004 and 2009	all communities	increasing	negative	4.5.7 Housing Problems and Households in Core Need

**Table I-1 Summary of Trends for NWT Social Indicators (continued)**

<b>NWT Social Indicator</b>	<b>Latest Years Available</b>	<b>Communities Available</b>	<b>Trend Direction</b>	<b>Positive or Negative Trend</b>	<b>Report Section</b>
Households with 6 or more Persons	1981 to 2009	all communities	decreasing	positive	4.5.7 Housing Problems and Households in Core Need
Violent Crime Rate	1996 to 2008	NWT, Yellowknife <sup>b</sup> , Behchokò , and Whatì	- increasing in Behchokò and NWT - decreasing in Whatì - no change in Yellowknife	negative (Behchokò and NWT); positive (Whatì);and neutral (Yellowknife)	4.5.8 Crime and Safety
Juvenile Crime Rate	1996-1998 to 2004-2006	NWT, Yellowknife <sup>b</sup> , Behchokò , and Whatì	- increasing for females in Behchokò and decreasing for males in Behchokò - increasing in Whatì and NWT - no change in Yellowknife	positive (males in Behchokò), negative (females in Behchokò, Whatì and NWT), and neutral (Yellowknife)	4.5.8 Crime and Safety
Shelter Admissions	1999 to 2006	NWT only	- decreasing number of children - no distinct trend for women	positive (children) and neutral (women)	4.5.8 Crime and Safety
Child Protection Investigations	2000-2001 to 2005-2006	NWT only	decreasing	generally positive (unless reporting to government agencies is down as well)	4.5.8 Crime and Safety
Use of Harvested Meat & Fish	1993 to 2008	all communities (N'Dilo – 2003 only)	- increasing in Behchokò, Whatì and Detah - decreasing in Gamètì and Wekweètì - no change in Yellowknife and NWT	positive (Behchokò, Whatì and Detah), negative (Gamètì and Wekweètì) and neutral (Yellowknife and NWT)	4.6.2 Consumption of Country Food
Aboriginal People Able to Speak an Aboriginal Language	1989 to 2009	all communities	decreasing	negative	4.6.3 Use of Aboriginal Languages

**APPENDIX II**

**PROGRAMS AND SERVICES**

## **II-1.0 EDUCATIONAL PROGRAMS AND SERVICES**

### **II-1.1 Tłıchq COMMUNITY SERVICES AGENCY**

The Tłıchq have a long history of directing their community schooling programs, along with other health and social services (Gibson et al. 2008). In 1969, in Behchokò, an education society was formed which looked to other Aboriginal communities for direction in program development; most notably the Navajo Rough Rock Demonstration School in Arizona (Gibson et al. 2008). The Dogrib Divisional Board of Education, created in 1989, brought together large numbers of community leaders to set direction for the education system. As a result, cultural based curricula with language and culture programs were developed (Gibson et al. 2008). The Dogrib communities petitioned the Government of the NWT to integrate health programs and child and family services with education, following a directive in 2 Acts: *Education Act* (GNWT 1995) and *Child and Family Services Act* (GNWT 1997) (Gibson et al. 2008). The request was approved and the integrated Dogrib Community Services Board (now the Tłıchq Community Services Agency) provided governance for education, health care, and child and family services (Gibson et al. 2008). As the educational authority for the 4 Tłıchq communities, the TCSA has acknowledged that capacity building in the Tłıchq communities is both a challenge and an opportunity to resolve a multitude of issues from staffing to targeted program implementation.

### **II.1.2 CULTURAL AND LANGUAGE EDUCATION**

Secondary school programming in the NWT is based on the Alberta secondary school curriculum. The TCSA has built on the NWT/Alberta curriculum with the development of several locally developed high school credit courses such as Tłıchq Yati, Tłıchq Spirituality, Tłıchq Drumming, Tłıchq History, Beading & Embroidery, Trails of our Ancestors (summer travel in canoes and on the land with elders), and Ganáowo (“Our Ways”) as part of the Dene Kede Curriculum (TCSA 2010, internet site).

All schools in the Tłıchq region place a strong emphasis on teaching about Aboriginal culture and language. For example, Elizabeth Mackenzie Elementary School in Behchokò gives students 120 minutes of Tłıchq language instruction per week and students and teachers participate in on-the-land cultural activities throughout the year, e.g., day and overnight camps, drumming and hand games. The Jean Wetrade Gamèti School also has a full-time Tłıchq language teacher and offers on-the-land experiences to students, such as hunting, fishing and trapping. At Alexis Arrowmaker School in Wekweèti students go on various on-the-land trips and receive at least 30 minutes of Tłıchq language and cultural instruction per day. Whatı’s Mezi Community School also employs an

Aboriginal language teacher (TCSA 2010, internet site).

At Chief Jimmy Bruneau School in Behchokò, Tłıchǫ Yati is mandatory for all students in kindergarten to Grade 9. Tłıchǫ Yati 15, 25, and 35 courses are offered as an option in Grades 10 to 12, for 5 credits each year. Two full-time language instructors provide instruction in Tłıchǫ Yati. The Tłıchǫ language instructor at the kindergarten to Grade 6 level moves from class to class, providing students with 30 minutes of formal language instruction each day. In addition, since most of the elementary staff is Tłıchǫ, much of the regular daily instruction to students is provided in a combination of English and Tłıchǫ (SAEE 2007). At the Grade 7 to 12 level students receive 3- 60-minute periods of language instruction each week. For many, this is the only formal exposure they get to their language, with the exception of on-the-land experiences where most of the instruction is done in Tłıchǫ (SAEE 2007).

The schools in Detah and N'Dilo both have a strong cultural focus on the heritage and traditions of the Dene people. They have Dogrib language programs and offer on-the-land activities and culture camps. Students at the K'alemi Dene School in N'Dilo benefit from the experiences of an "Elder in-residence" (Yellowknife Education District No. 1 2010, internet site).

### **II.1.2.1 Aboriginal Teachers**

The success of Aboriginal culture and language programming depends on the availability of Aboriginal teachers. One focus of the GNWT's *Strategy for Teacher Education in the Northwest Territories 2007-2015* (GNWT Department of Education, Culture and Employment 2007c) is to increase the representation of Aboriginal teachers in NWT schools. This is being done through the implementation of the Teacher Education Program to provide personal, professional, cultural and academic learning. Between 1997 and 2005, the percentage of Aboriginal teachers in the Tłıchǫ schools decreased from 40 to 26% (or 49 to 34% including Aboriginal language specialists). Representation of Aboriginal teachers decreased because the number of Aboriginal teachers remained the same while the number of teaching positions increased (GNWT Department of Education, Culture and Employment 2007a). For a representative workforce (i.e., the percentage of Aboriginal teachers reflects the size of the Aboriginal population in the region), the Tłıchǫ require an additional 41 Aboriginal teachers (or 36 given existing Aboriginal language specialists). In the Yellowknife Education District (including Detah and N'Dilo) an additional 62 Aboriginal teachers are required for a representative workforce (GNWT Department of Education, Culture and Employment 2007a). The GNWT feels that the key to their success will depend on effectively recruiting and retaining Aboriginal teaching students in a responsive, culture-based program that can be



delivered in communities and at the lead campus in Yellowknife.

The Aurora College Teacher Education Program (TEP) prepares Aboriginal and Northern teachers for NWT schools. In 2006-2007, through a partnership with the TCSA, Tłıchq Government, Aurora College, and the GNWT Department of Education, Culture and Employment, Aurora College offered a combined Community Education Preparation Program (CEPP) and TEP Access Program in the Tłıchq Region (GNWT 2009b). The program provided courses in Aboriginal language, culture camps, healing and wellness, and academic preparation. Seven students completed CEPP and 12 students completed TEP Access. In 2007-2008, students who completed the programs, as well as some new applicants, continued on in either the 2-year Aboriginal Language and Cultural Instructor Program Diploma (ALCIP) or the 3-year TEP Diploma (GNWT 2009b).

In the same year, the Tłıchq Region offered the first of 3 years of the TEP Diploma and the first of 2 years of the ALCIP Diploma. Four students successfully completed the first year of the TEP Diploma and an additional 3 enrolled for the 2008-2009 academic year (GNWT 2009b). In 2009-2010, 6 students will likely complete the program in June (GNWT 2009b). Nine students successfully completed the first year of the ALCIP Diploma and 9 students graduated in June 2009.

In a recent public review of the *Official Languages Act*, Tłıchq participants noted that funding for the ALCIP and TEP should increase (Standing Committee on Government Operations 2009). They felt that younger people have fewer opportunities to experience traditional lifestyles and are more influenced by English as the language of modern society. Because many parents do not practice their language and culture at home anymore, expectations towards the school system's responsibility for language acquisition have increased. Increased funding and training was viewed as a way to increase the number of language and cultural instructors that can be employed in Tłıchq schools and reverse the decline of the use of Tłıchq (Standing Committee on Government Operations 2009).

### **II.1.3 FINANCIAL ASSISTANCE FOR POST-SECONDARY EDUCATION**

Those who graduate high school and wish to pursue post-secondary education often seek financial assistance. The GNWT provides student financial assistance to those who qualify.

The Tłıchq Government also funds a scholarship program of approximately

\$500 000 annually, over and above existing post-secondary NWT Student Financial Assistance (NWTSA) provided to all territorial students by the GNWT (SAEE 2007). During the 2005-2006 school year, approximately 93 Tłıchǫ students received support from the program while attending post-secondary programs at a variety of locations in the NWT and in southern Canada (SAEE 2007). In 2006-2007, 136 students received funding, receiving an average of \$3571 each (TCSA 2007a). From 1997 to 2007, the Tłıchǫ Scholarship Program has provided over \$4 million to students, supporting the earning of 142 post-secondary certificates, 26 post-secondary diplomas, 26 University bachelor's degrees, 2 University Master's degrees, and 14 trade apprenticeships (TCSA 2007a). In 2006-2007, participants in the Tłıchǫ Scholarship Program have enrolled in almost 40 different post-secondary programs of study, including a full range of art, science, and trade programs (TCSA 2007a).

At the territorial level, funding to individual students through the NWTSA program is the second largest post-secondary expenditure for the Department of Education, Culture and Employment. In 2004-2005, a total of 1501 NWT students received government financial assistance (GNWT Department of Education, Culture and Employment 2005). From 1991-1992 to 2004-2005, Aurora College's intake of NWTSA students increased by 107%. In 1991-1992, the total number of Aboriginal students attending Aurora College and receiving NWTSA was 196 (47 non-Aboriginal students). In 2004-2005 the number of Aboriginal students increased to 290 students (112 non-Aboriginals). In 2004-2005, approximately 3 out of every 4 students receiving NWTSA and attending Aurora College were Aboriginal (GNWT Department of Education, Culture and Employment 2005). Over this period, average funding per student increased from \$6258 in 1991-1992 to \$9923 per student in 2002-2003. In 2003-2004 and 2004-2005; however, funding declined to about \$1050 per student (GNWT Department of Education, Culture and Employment 2005).

## **II.1.4 ADULT LITERACY AND BASIC EDUCATION**

For some students, lack of funds may not be the only barrier to further education as many struggle with literacy. To help improve adult literacy rates and education attainment Aurora College offers several Adult Literacy and Basic Education (ALBE) programs aimed at improving a variety of skills at the grade 1-12 levels. In 2004-2005, enrolment in ALBE programs accounted for over 20% of Aurora College's full-time equivalent enrolments (GNWT Department of Education, Culture and Employment 2005). Almost half of these programs are delivered in Community Learning Centres like the ones in Behchokǫ and Whatì.

The GNWT Department of Education, Culture and Employment also encourages the participation and development of literacy in NWT's official Aboriginal languages. Since 2002, the department has provided funding to each of the

official Aboriginal language groups for community-based literacy programs or projects for the development of literacy programs based on traditional and cultural learning in the local language (GNWT 2009b).

## **II-2.0 EMPLOYMENT PROGRAMS AND SERVICES**

### **II.2.1 APPRENTICESHIP AND OCCUPATIONAL PROGRAMS**

After completing high school, many students choose to enter apprenticeship and occupational programs, including those with a focus on the mining industry. Aurora College offers these types of programs and is the only post-secondary institute in the NWT. Graduation statistics (and some enrolment numbers) are available for selected Aurora College programs between 2001-2002 and 2008-2009 (Table II.2-1), including apprenticeship and trades and technology certificate programs. Some newer courses shown in Table II.2-1 for 2008-2009 include the Introduction to Underground Mining and Underground Miner Training, with 24 and 47 graduates respectively, indicating the growing need for these skills as the diamond mines have been shifting from open pit to underground operations.

Enrolment and graduation in apprenticeship programs has fluctuated (Table II.2-1). While there has been an increase of nearly 44% in registered apprentices in Canada between 1999 and 2004, the average number of registered apprentices in NWT remained the same (GNWT Department of Education, Culture and Employment 2008b). Between 2001-2002 and 2006-2007, on average, 390 apprentices (95% male and 62% non-Aboriginal) were registered annually in NWT (GNWT Department of Education, Culture and Employment 2008b). In 2005, over half of the registered apprentices in the NWT were in the study area (GNWT Department of Education, Culture and Employment 2005).

Enrolment in trades and technology programs has followed a similar trend to enrolment in apprenticeship programs. Between 2001-2002 and 2006-2007, the average number of candidates registered for occupational certification (e.g., trades and technology programs) was 217, which included about 72% males and 63% non-Aboriginal candidates (GNWT Department of Education, Culture and Employment 2008b).

The GNWT *Apprenticeship and Occupational Certification (AOC) Plan Program Review and Action Plan* (August 2008) assessed the factors contributing to a static annual enrolment in AOC programs in the NWT between 2001-2002 and 2006-2007 despite the favourable economic conditions and increased skilled-labour demand. These factors included the following (GNWT Department of Education, Culture and Employment 2008b):

**Table II.2-1 Aurora College FTE Enrolments and Graduates by Program Type, 2002-2003 to 2008-2009**

Program Type	2002-2003		2003-2004		2004-2005		2008-2009	
	Enrolment	Graduates	Enrolment	Graduates	Enrolment	Graduates	Enrolment	Graduates
<b>Trades and Technology</b>	175	61	237	94	258	101	n/a	n/a
Heavy Equipment Operator	24	0	21	0	27	17	n/a	17
Observer/Communicator	15	30	13	25	10	15	n/a	15
Introductory Cooking	19	2	28	6	20	13	n/a	0
Diamond Cutting and Polishing	0	0	31	25	27	12	n/a	0
Pre-Employment Mechanics	0	17	2	17	8	8	n/a	0
Pre-Employment Welding	9	0	6	0	15	8	n/a	0
Pre-Employment Cooking	0	0	0	5	0	6	n/a	n/a
Pre-Technology	6	1	14	4	21	7	n/a	0
Pre-Employment Carpentry	4	0	0	5	6	6	n/a	6
Introduction to Trades and Technology	2	0	9	0	24	4	n/a	n/a
Introductory Welding	0	0	0	0	8	4	n/a	0
Pre-Employment Secondary Diamonds	15	11	0	0	0	0	n/a	0
Camp Cooking/Catering	1	0	8	7	0	0	n/a	18
<b>Apprenticeship</b>	32	17	93	26	40	13	n/a	13
Carpentry	9	17	15	10	15	6	n/a	n/a
Electrical	10	0	24	12	18	0	n/a	n/a
Plumbing	6	0	39	12	0	0	n/a	n/a
Heavy Duty Mechanics	3	0	7	0	2	0	n/a	n/a
Housing Maintainer	4	0	8	4	5	0	n/a	n/a
<b>Total Trades and Technology and Apprenticeship</b>	<b>207</b>	<b>78</b>	<b>330</b>	<b>120</b>	<b>298</b>	<b>114</b>	<b>n/a</b>	<b>115</b>

Source: GNWT Department of Education, Culture and Employment 2005.

Notes: Not all Trades and Technology Programs are listed. FTE Enrolments are rounded to the nearest unit. Graduates may be awarded parchments from 2 programming streams, credit programs (Certificate or Diploma), and Trades and Technology programs (a Record of Achievement). Students enrolled in Apprenticeship programs are deemed to be a graduate upon completing the highest level within their program of studies offered by Aurora College. Enrolment statistics are missing for 2008-2009. Also, the total number of graduates for 2008-2009 is 115 but the numbers do not add up to this amount since some of the programs have changed. n/a means data unavailable.

1. Limited financial incentives for employers to train apprentices. Despite the wage subsidy, some companies complain of the financial burden to invest in the time to train employees, especially first and second year apprentices.
2. Inadequate and inconsistent promotion of the program in the NWT. Funding for promotion has been cut back resulting in limited opportunities for marketing of the program and communicating the benefits from a career in trades.
3. Apprentices cannot be trained if there are no journeypersons employed in a community. Such training is much easier on companies located in larger centres (such as Yellowknife).
4. Many potential apprentices in smaller communities do not wish to leave their communities to pursue the program, thus further reducing the numbers available for the program.
5. Lack of participation in the program by the GNWT as a trainer. Until the mid-1990s, the GNWT was one of the main trainers of apprentices in the smaller communities. Due to government-wide cutbacks, the apprenticeship training program was discontinued.
6. The high cost of living in the NWT and high wages in Alberta has hindered apprentices and journeypersons moving to the NWT from other jurisdictions.

Other reasons may also be behind the number of occupational certificate candidates tapering off slightly in the past few years (GNWT Department of Education, Culture and Employment 2008b):

1. Candidates would like to see the occupational certification programs treated in the same fashion (and with the same resources) as the apprenticeship program. This would mean establishing an employer wage subsidy for the program, which would increase the number of employers who would be willing to have their workers certified.
2. Little financial incentive for candidates to undertake the occupational certification program as they do not receive mandatory wage increases as they progress through the program.

3. Lack of certified workers in some communities who are able to examine candidates potential programs.
4. The occupational certification process is comparatively new, and has not yet established enough momentum to operate in a more robust manner.

The plan also identified several opportunities and challenges for increasing the enrolments in the AOC programs, including the following (GNWT Department of Education, Culture and Employment 2008b):

- local role models should be used throughout the NWT to promote both apprenticeship and occupational certification, showing that AOC programs lead to good careers, financial rewards, and a good quality of life;
- the industrial arts shops that were in existence throughout the NWT up until the mid-1990s should be brought back to increase the exposure to students across the NWT and to facilitate greater involvement in the Schools North Apprenticeship Program;
- trades and occupations could be promoted through summer jobs at mining companies and other businesses, allowing students to gain hands-on experience;
- the benefits of having certified workers (e.g., financial, liability, service benefits) need to be promoted within the relevant industries to ensure buy-in from both workers and employers; and
- more resources are needed to administer the AOC program.

One of the ways the GNWT encourages training and employment of apprentices is through the Apprenticeship Training Assistance Program. The program is a wage subsidy, provided by the GNWT Department of Education, Culture and Employment, whereby an employer and an apprentice enter into an agreement which provides a portion of the apprentice's salary to assist the employer in training an apprentice for permanent employment (GNWT Department of Education, Culture and Employment 2010a, internet site). In the 2010-2011 Budget the GNWT announced almost \$1 million for apprentice support, Aurora College programs, and to assist adults to complete their secondary education (GNWT 2010). An additional \$58 000 has been allocated to hire new apprentices in designated trades and occupations to address the need to train skilled tradesperson in rural and remote communities (GNWT 2010).

## **II.2.2 MINE TRAINING OPPORTUNITIES**

Resource development presents the Tłıchq̓ with several challenges and opportunities concerning mine training and employment. Competition for good staff is a major challenge as many organizations and businesses in the North Slave, as well as the rest of the north and western Canada, are struggling to find qualified employees. Creative organizational solutions and expanded programs of capacity building and training for residents of the Tłıchq̓ communities are necessary (TCSA 2006).

### **II.2.2.1 Mine Training Society**

Lack of capacity, or skills and training, has consistently been identified as a key barrier to employment of northerners (especially Aboriginal northerners) (Auditor General of Canada 2010). Employment of Aboriginal northerners in mining is important to communities and a priority for regulators, mining companies, and the territorial government.

In 2004, the Mine Training Society (MTS) was established as a non-profit society comprised of Aboriginal, industry and government partners to provide training to northerners wanting to pursue a career in mining. From 2004 to 2012, Aboriginal Skills and Employment Partnership (ASEP) has committed \$23 million for MTS training programs and initiatives. Other funding sources since 2004 include \$5.5 million from Indian and Northern Affairs Canada (INAC), \$14.8 million from industry partners; and \$2.4 million from the GNWT (MTS 2009). ASEP contributions are usually matched by industry partners (MTS 2009). Since 2004, MTS has trained over 500 northerners for high paying jobs in the mining industry (MTS 2009). In August 2008, INAC announced that MTS' success would be awarded with funding through 2012 (MTS 2009). Partners of MTS include the following:

- Aboriginal Partners:
  - Lutsel K'e Dene First Nation;
  - North Slave Métis Alliance;
  - Tłıchq̓ Government; and
  - Yellowknives Dene First Nation.
- Government Partners:
  - Education Culture and Employment, Government of Northwest Territories; and

- Government of Canada, Human Resources and Social Development Canada, Aboriginal Skills and Employment Partnership.
- Industry Partners:
  - BHP Billiton Diamonds Inc.;
  - Diavik Diamond Mines Inc.; and
  - De Beers Canada Inc.

Despite a global economic downturn in 2008, the long term need for a trained and skilled workforce is at an all time high (MTS 2009). A human resource needs assessment across NWT's mining industry in 2008 identified the need for as many as 5000 new semi-skilled, skilled, and professional workers over the next 5 years (MTS 2009). This number reflects turnover and retirements as well as growth and is almost double to previous forecast of 2700 (MTS 2008; 2009). In 2008, about 25% of NWT residents over the age of 15 were not in the labour force. Discounting that figure for chronic illness, disabilities, and retirees leaves about 6000 potential recruits in the territory. That means every age-qualified person in the NWT could be a prospective mining employee. MTS' goal is to train an additional 576 northerners by 2012 (MTS 2008).

Often the only things holding people back from employment in the mining industry are literacy and numeracy deficits. To address this issue MTS offers literacy, numeracy, and science courses before, during, and after training, including taking the Test of Workplace Essential Skills (TOWES) to communities across the North at no charge. TOWES provides an assessment of strengths and weaknesses and, more importantly, enables development of individualized training plans (MTS 2009).

MTS develops a learning program for each applicant with the help of Aurora College and industry partners. Applicants may attend school to receive training or get involved in a job shadowing or apprenticeship program at a mine site, or receive education and on-the-job training in combination (MTS 2010a, internet site). MTS works with mining companies and industry service providers to bring training and jobs together. Up to 50% of eligible costs for training programs may be funded by MTS. Priority for funding is given to training proposals that are skills-based and lead directly to employment (MTS 2010a, internet site).

In 2007-2008, the MTS funded and facilitated a total of 16 programs for 303 students (MTS 2008). Training programs offered through the MTS (and in partnership with Aurora College) include the following:



- 
- Introduction to Mining (required before entering the Underground Miner Training Program);
  - Environmental Monitor Technician;
  - Medical First Responders;
  - Underground Miner Training Program;
  - Camp Cooks;
  - Apprenticeship training for:
    - Electricians;
    - Plumbers;
    - Welders;
    - Pipefitters;
    - Carpenters;
    - Shotcrete Nozzle Persons;
    - Class 1 Drivers; and
    - Heavy Equipment Operators (MTS 2008).

Examples of programs offered by MTS in partnership with the Tłıchǵ and the North Slave Métis Alliance (NSMA) are summarized in Table II.2-2.

The Trades and Technology program offered by MTS in partnership with the Tłıchǵ government provides Tłıchǵ youth with preliminary exposure to the various trades and prepares them for entry into further vocational training programs (SAEE 2007). The program operates in a wing of Chief Jimmy Bruneau School and is staffed with a coordinator and 4 teachers (SAEE 2007). During the 2005-2006 school year, almost 100 (98) full and part-time students were enrolled in the program (SAEE 2007).

The Underground Miner Training Program was launched in 2007-2008 with 15 students selected from over 60 participants. Aurora College instructors travelled to communities around the NWT delivering 6-week introductory courses. The introductory course has been offered within the study area in Wekweètì, Gamètì, Whatì, Yellowknife, Detah, and N'Dilo (MTS 2008).

The 6-week program allows Aurora College to evaluate the students' aptitude, commitment, adaptability, and enthusiasm before they commit to the 12-week program in Yellowknife. The GNWT Department of Education, Culture and Employment has also provided funding for the program and developed the "made

in the north” curriculum. The 12-week program at the Yellowknife Campus teaches basic geology, mining methods, mine safety, and as part of their education and training, students spend time on a new \$1.5 million simulator learning how to operate underground mining equipment (MTS 2010b, internet site). Once the trainees complete their 12 weeks of technical training, they are placed in an additional 12-week traineeship at one of the partner diamond mines (MTS 2008). Eleven trainees were selected for the 2007-2008 pilot.

Table II.2-2    MTS Programs, 2005-2009

Program	Year	# of Students	# of Job Placements	Amount Invested (\$)	Sample Employers	Sample Job
Trades and Technology Training Program (in partnership with Tłı̨chǵ Government)	2005-2008	87	n/a	529 522	Rio Tinto Diavik; BHP Billiton; De Beers Canada	entry level trades and technology
	<b>Objective:</b> Provide a range of educational and training programs within 3 basic program areas: 1. Secondary schooling (grades 10-12) – includes courses within the GNWT curriculum as well as wellness and cultural programs; 2. Trades and technology training – includes basic mining and trades technology, first aid and safety, WHMIS, mining terminology, orientation to mining, underground mine training, mining technology, pre-apprenticeship projects, trades examination preparation, etc. 3. Tłı̨chǵ self-government – includes development of the skills and competencies required by the new Tłı̨chǵ government (i.e., leadership, planning, policy development, system development and expertise that residents require to manage their lands).					
Colomac Mine Apprenticeship Program (in partnership with Tłı̨chǵ Logistics)	2007-2008	15	6	337 104	Tłı̨chǵ Logistics	mine related trade occupations
	2008-2009	6	n/a	333 861	Tłı̨chǵ Logistics	mine related trade occupations
	<b>Objective:</b> Provide participants with the knowledge, skills and support required to be successful in the trades. The program ensures Aboriginal persons can access mining-related trade occupations by providing mentors, safety training and support. The training is directed at industry-identified jobs and is community focused.					
Environmental Training Program (Gamèti)	2007-2008	10	3	26 068	Rio Tinto Diavik; De Beers Canada; BHP Billiton	Environmental Monitor
	<b>Objective:</b> Train Aboriginal participants to perform pre-technician aspects of environmental monitoring. The program is an accredited 5-week training program based on the nationally accepted occupational standards for Environmental Technicians. Graduates earn a certificate from Building Environmental Aboriginal Human Resources (BEAHR) and a record of Achievement from Aurora College. Their training time is recognized towards occupational certification under the <i>Apprenticeship, Trades and Occupations Certification Act</i> .					
BHP Mineral Processing Program (in partnership with the NSMA)	2007-2008	14	5	502 798	BHP Billiton	entry-level trainee position
	<b>Objective:</b> Train qualified Aboriginal workers for entry-level trainee positions in the processing plant at EKATI Mine. Five of the participants who successfully complete the program will be offered employment. The balance of the graduates may find employment in other process operator trainee jobs such as utilities operations on the mine site or in mineral processing jobs at other northern mines.					
De Beers Mineral Processing Program (in partnership with the NSMA)	2007-2008	16	9	501 426	De Beers Canada	entry-level trainee position
	<b>Objective:</b> Train qualified Aboriginal workers for entry-level trainee positions in the processing plant at Snap Lake Mine. Nine of the participants who successfully complete the program will be offered employment. The balance of the graduates may find employment in other process operator trainee jobs such as utilities operations on the mine site or in mineral processing jobs at other northern mines.					
Introduction to Underground Mining (Gamèti)	2007-2008	10	n/a	30 767	n/a	n/a
Introduction to Underground Mining (Wekweèti)	2007-2008	10	3	36 618	n/a	n/a
Introduction to Underground Mining (Whati)	2007-2008	10	n/a	12,419	n/a	n/a
	<b>Objective:</b> Introduce people in the communities to the world of underground mining; introduce possible students to Underground Mining Program and instructor. The program includes essential skills testing, essential skills upgrade, Ready to Work program as well as safety, WHMIS and first aid training. Students also train in underground mining using desktop simulators.					

n/a = not applicable  
Source: MTS 2008; MTS 2009.

In 2008-2009, 189 people applied to the Introduction to Mining course, which was offered in 7 communities. After screening, 91 students were accepted. Students who did well were invited to the 12-week Underground Miner Program. Of the 31 trainees who completed the program, 27 found employment in NWT mines.

One of the challenges that the MTS has faced in offering these courses and programs, and the industry in offering matching jobs, was the shifting from traditional lifestyles to the wage-based economy (MTS 2008). The Rio Tinto Diavik mine found that, in the beginning, the Aboriginal turnover rate was a big problem: “They’d get 2 or 3 paycheques, quit and then come back a few months later wanting their job back because they’d run out of money.” (Arnold Enge, Manager of Aboriginal Workforce Development at Rio Tinto Diavik, quoted in MTS 2008).

At the request of the mining companies, the MTS introduced the Ready to Work North course to prepare students with essential employability skills. The GNWT Department of Education, Culture and Employment course focuses on workplace literacy, teamwork, safety, and preparing students to deal with working a rotation schedule and the regular paycheque that comes with it (MTS 2008). Students are paid during training and may also be eligible for help with child care costs (MTS 2008).

In 2008, the MTS evaluated the effectiveness of their training programs. They found that between 2004 and 2007, 64% of MTS trainees were fully employed in the mining sector. The number of trainees receiving government or income assistance also declined by 300% from year to year (MTS 2008). About thirty percent of students passing through the MTS programs are women, well above the 5% average working in the national mining industry (MTS 2008). Many of these women are single mothers (MTS 2008).

Chief Charlie Football of Wekweètì foresees the benefit of training to create a legacy of skills in communities long after the mines are gone:

*Colomac Mine (reclamation project) is going to shut down in 2 years. The mine opens up the winter road to my community every year. What’s going to happen when it closes down? BHP, Diavik...they need people to maintain the winter road, and MTS can train them. I want people from my community to get that training. Our people end up with transferrable skills and our community can maintain the winter road (quoted in MTS 2009, p.6).*

## **II.2.2.2 Northern Women in Mining, Oil and Gas Project**

The Northern Women in Mining, Oil and Gas (NWMOG) Project was delivered by the NWT Status of Women Council from April 2007 to February 2010, and was designed to encourage an increased number of northern women in industrial/trades occupations. Women in the north face many employment barriers in the mining, oil and gas sectors, including being the primary, and possibly the only, caregiver in the family. They may also lack support from partners and family in pursuing rigorous training. Other barriers are based on limited education levels and opportunities, limited financial resources and the perception that trades and industrial occupations are best suited to men. Social issues, including physical and sexual abuse and substance addictions, also create barriers to northern women working in the mining and oil and gas industries (Status of Women Council of the NWT 2010, internet site). NWMOG Project partners have committed to providing on-going advice on labour market needs and required training, project information sharing and advertising, and human resource, financial, and in-kind support (Status of Women Council of the NWT 2010, internet site). Industry partners also committed to considering Project participants for industrial jobs and apprenticeships upon successful completion of the training (Status of Women Council of the NWT 2010, internet site).

During the course of the NWMOG Project, 17 information sessions were held in 11 NWT communities and 1 Nunavut community with a total of 71 participants. Interest in the Project increased each year with 37 applicants in Year 1, 43 in Year 2, and 73 in Year 3. Three courses were offered as part of the training portion of the program:

1. **Exposure Course:** These courses were offered for women who wanted to further investigate the trades before committing to the extended training and/or did not initially qualify for the other courses. Ten courses were held, 7 in Yellowknife and 1 each in Fort Smith, Trout Lake, and Hay River. The exposure courses provided women with the opportunity to explore different trades-based occupations in a safe and comfortable environment. They gained basic skills that assisted them in being able to continue on to the extended courses.
2. **Builder Trades Helper Course:** This course was developed over a 12-week period in Yellowknife by Aurora College. This course allowed women to experience a wide range of trades (e.g., carpentry, plumbing, and electrical) while helping them to learn what basis skills are required for entry level positions in the mining and oil and gas sectors.
3. **Trades Access Program:** This program was offered over a 20-week

period in Yellowknife by Aurora College. This program provided women with the skills necessary to work in a specific trade of their choice and also prepared them to write the NWT Trades Entrance Exam (J. Carey Consulting Evaluations Plus Ltd. 2010).

Of the 42 women who completed the Exposure Courses, the Builder Trades Helper course, or the Trades Access Program, only 8 women (19%) attained employment in the trades to some degree, 4 of which continue to retain those positions (J. Carey Consulting Evaluations Plus Ltd. 2010).

The limited success of the NWMOG Project indicate that barriers still exist for women to become employed or retain their positions in the trades. These, for the most part have been ones that were beyond the Project scope and included the following:

- Lack of reliable childcare, especially at the community level. This hindered the ability of some women to work in their home community, and especially a 2 week on/off mining rotation.
- The economic downturn meant that industry partners were laying off employees and were unable to hire new staff.
- The mining industry is looking for skilled workers rather than entry-level labourers.
- There was a lack of interest among participants to attain employment in the trades outside their home communities.
- Some women did not interview well for the positions offered.
- Some women did not hold a valid driver's licence, which is an important requirement for working in the mining and oil and gas industry (e.g., heavy equipment operator).
- Lack of work experience made it difficult for women to get practical experience (J. Carey Consulting Evaluations Plus Ltd. 2010).

Still, the NWMOG Project was able to successfully address 3 barriers to women's representation in the trades:

1. Increased participant's awareness to gain the skills necessary to work in trades-based industries, and encouraged them to do so.
2. Removed the perception (among participants) that the industrial workplace is an environment best suited for males.

3. To the extent possible, addressed participant wellness issues through personal awareness counselling, referrals and upgrading (J. Carey Consulting Evaluations Plus Ltd. 2010).

### **II.2.2.3 Kimberlite Career and Technical Centre**

Yellowknife Catholic Schools opened the Kimberlite Career and Technical Centre (KCTC) in January 2004, with support from industry partners like De Beers Canada and Diavik Diamond Mines, to meet the needs of K-12 students who may wish to enter various trades in the northern workforce. The centre is meant to allow students to have exposure and experience in the trades (KCTC 2010, internet site). In the spring of 2006, the centre was expanded to double capacity (KCTC 2010, internet site). Students from École St. Patrick High School and Aurora College are eligible for several Career Technology Studies modules in mine training, including the following:

- Introduction to the Mine Life Cycle;
- Mapping GIS/GPS;
- Environmental Studies;
- Introduction to Surface & Underground Mining; and
- Introduction to NWT Geology & Prospecting.

Today the KCTC provides over 500 students from grade 7 to 12 with training in a variety of trades (MTS 2009). Adult programming and courses offered by the Status of Women Council are also available at the centre.

### **II.2.3 OTHER EMPLOYMNET PROGRAMS**

Employment programs are one way to help students and graduates identify job or career opportunities and gain experience. For example, the Northern Student Employment Program offers northern students an opportunity to gain work experience through the summer within the GNWT. A major goal of this program is to expose students to the variety and depth of careers available within the Public Service and encourage them to consider the GNWT as a preferred employer after graduation. In 2007, 353 northern students were hired (GNWT Department of Human Resources 2007). This declined 16% to 281 northern students in 2008, of which 63% has been previously employed through the program. The program experienced this decline in hires due to budget reductions (GNWT Department of Human Resources 2008).

The program provides:

- priority hiring status for students during the summer months, particularly for those jobs relevant to the students' areas of study;
- information about potential summer employment;
- orientation and career development workshops;
- exit interview for students;
- Progressive Experience Program (PEP); and
- Relevant Experience Program (REP).

Progressive Experience Program has 2 objectives: to provide students with work experience directly related to their field of study and to allow departments, boards, and agencies to develop relevant skills and experience in northern students. Most of PEP's participation occurs during the summer months as the program is geared towards summer students. In 2007, 77 students were hired through PEP (GNWT Department of Human Resources 2007). In 2008, 79 positions were supported (GNWT Department of Human Resources 2008).

REP assists northern post-secondary students enrolled in health care or social services programs to gain experience within a NWT Health and Social Services Authority relevant to their field of study. The program lasts up to 16 weeks (600 hours). Students work under the supervision of a health and or social services professional in an acute care, or a regional/community office setting. In 2007, 48 students were hired through REP (GNWT Department of Human Resources 2007). In 2008, 49 positions were supported (GNWT Department of Human Resources 2008).

A second program, the Northern Graduate Employment Program is meant to assist northern post-secondary graduates gain valuable work experience in their chosen field of study by offering them employment. In 2007, 14 graduates were hired: 9 nurses, 1 social worker, and 4 teachers (GNWT Department of Human Resources 2007). In 2008, 17 graduates were hired, 10 nurses, 2 social workers, and 5 teachers (GNWT Department of Human Resources 2008). The program provides development workshops and support for permanent placements following internships. Other elements of this program include:

- employment promotion and recruitment;
- graduate employment for nurses;
- graduate employment for social workers;
- graduate employment for teachers;
- graduate internships (Public Service);



- graduate transition program (private sector internships);
- career development workshops; and
- job placement support.

The Graduate Internship Program provides up to one year of employment to recent graduates in their field of study. In 2007, 37 interns were hired, 35 of which were funded through the program (GNWT Department of Human Resources 2007). In 2008, 24 interns were hired. Due to a budget reduction exercise the number of internships available decreased by 35% from 2007, although the number of applicants increased by 220%. Thirty-eight percent of graduates that received internships in 2007 remained employed with the GNWT in 2008 (GNWT Department of Human Resources 2008).

Other employment programs offered through the Department of Education, Culture and Employment include the following:

- Graduate Transition Program;
- Training on the Job; and
- Youth Employment Program.

The Graduate Transition Program is designed to give graduates the opportunity to apply their academic knowledge and develop relevant workplace skills. Wage subsidies are available to a maximum of 52 weeks. The employment period must be a minimum of 6 months to ensure graduates have sufficient time to develop skills and gain work experience. A maximum of \$25 000 is available to employers to offset salary costs of hiring recent graduates with minimal work experience (GNWT Department of Education, Culture and Employment 2010b, internet site).

The Youth Employment Program is meant to help students and youth (aged 15 to 29) make the transition to employment by providing them the opportunity to obtain essential skills through work experience. Salary subsidies are negotiable within program guidelines and based on availability. Jobs must be a minimum of 6 weeks (maximum of 52 weeks) and provide at least 30 hours of work on a weekly basis (GNWT Department of Education, Culture and Employment 2010c, internet site). In addition to the Youth Employment Program, the GNWT announced that it would invest \$350 000 in the 2010-2011 fiscal year to provide opportunities for youth in small communities to gain work experience through a summer employment incentive program for employers in these communities (GNWT 2010).

Training on the Job financially assists employers in training northern residents. The objective of the program is to help northerners acquire workplace skills needed for meaningful and permanent employment. All training requests are reviewed and recommendations are made for approval. Upon approval a wage subsidy will be provided to the employer at a regionally negotiated rate. Eligible employees must be currently receiving Employment Insurance benefits or have had an Employment Insurance claim in the past 3 to 5 years. The training period will generally not exceed 52 weeks (GNWT Department of Education, Culture and Employment 2010d, internet site).

## **II-3.0 INCOME SECURITY PROGRAMS AND SERVICES**

The NWT has several income security programs in place meant to help individuals and families meet their financial needs. Their purpose is to address the cost of living, compensate for low income, and maintain family income when the income earner returns to school, becomes unemployed, or retires, and provides support to those who, because of a disability or illness, are unable to earn an income (GNWT Department of Education, Culture and Employment 2006). Almost half (48%) of all income security expenditures are spent on programs that provide for basic needs; 20% is spent to mitigate the cost of living; 12% on home ownership programs; and another 20% is spent on programs that provide access to health, legal and education programs and services (GNWT Department of Education, Culture and Employment 2007a).

The GNWT administers 17 different income security programs and services (Table II.3-1) through 7 departments (GNWT Department of Education, Culture and Employment 2006). While the NWT income security system covers a wide range of supports, each program has different rules and objectives. The following issues were found to exist (GNWT Department of Education, Culture and Employment 2006):

- Various programs have different definitions of an adequate level of income and what would be considered a basic need;
- Programs exempt income from different sources when determining eligibility and calculating benefit entitlements;
- People are treated differently based on factors that have little to do with financial need;
- Programs define “family” in different ways and incorporate different levels of family responsibility; and
- Programs provide payments through a complex web of delivery systems.

**Table II.3-1 Income Security Programs and Services**

<ul style="list-style-type: none"><li>• Public Housing</li><li>• Student Financial Assistance</li><li>• Income Assistance</li><li>• Cost of Living Tax Credit</li><li>• Independent Housing</li><li>• Supplementary Health Benefits</li><li>• Territorial Power Subsidy</li><li>• Rent Supplement</li><li>• Legal Aid</li></ul>	<ul style="list-style-type: none"><li>• NWT Child Benefit</li><li>• Senior Supplementary Benefit</li><li>• Expanded Down Payment Assistance</li><li>• Senior Citizen Home Repair</li><li>• Emergency Repair</li><li>• Childcare Subsidy</li><li>• Senior Home Heating Subsidy</li><li>• Senior Citizens and Disabled Persons Property Tax Relief</li></ul>
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Source: GNWT Department of Education, Culture and Employment 2006.

Because these programs were developed at different times for different purposes, little thought was given to program coordination, developing common eligibility criteria, or to selecting the most efficient delivery system (GNWT Department of Education, Culture and Employment 2006).

Findings of government income security consultations were published in a document called “Community Voices” in 2006. The public voiced concerns about the following aspects of income security programs:

- Adequacy of benefits:
  - not providing for nutritious food;
  - not recognizing long term recipients and additional needs such as personal care;
  - not recognizing cost of living by community (e.g., the clothing rate was \$25/person regardless of where they lived); and
  - not enough incentives to work built in to the system.
- Transparency/Accessibility:
  - need for a single point of access;
  - need for a simpler process; and
  - need for more client oriented services.
- Respect/Dignity:
  - discuss alternative options when denying assistance;
  - address barriers; and
  - support individual choices.
- Income:
  - use net income;

- use a set percentage of earned income as a benefit reduction; and
- allow for windfalls (GNWT Department of Education, Culture and Employment 2006).

During 2007-2008, the Department of Education, Culture and Employment made changes to income security model and the Income Assistance program in particular. Changes to other income security programs were scheduled for subsequent years (GNWT Department of Education, Culture and Employment 2007d). The Public Housing Rental Subsidy program will likely be the next program identified for renewal (GNWT Department of Education Culture and Employment 2007a).

Tables II.3-2 and II.3-3 show the income security model and changes to the Income Assistance program as of September 1 2007.

**Table II.3-2 GNWT Income Security Model**

Aspect	Results In:	Description
Philosophy and Guiding Principles	cohesive philosophy	GNWT Income Security programs provide adequate financial assistance in combination with supports to help achieve self-reliance.
	cohesive policy framework	GNWT Income Security programs follow the Income Security Policy Framework for Personal Self-Reliance
Client Structure	recognition of individual client needs	Clients have specific needs and are in 1 of 5 categories: seniors, persons with disabilities, single parents, families and single employable persons. Self-reliance means different things to each of these groups and the supports required to achieve self-reliance will vary.
	client focussed programming	A case managed approach allows for supports to be geared to client need.
Benefit Structure	adequate benefits reflecting cost of living by community incentives to work fair and consistent treatment of income	Adequate benefit levels are provided to clients when they earn no income. Those with some income would receive a reduced benefit but the family or individual would always have an adequate income overall.
		Benefits reflect cost of living by community.
		Incentives to work adjust and balance the benefit reduction rate creating a scenario where people transition off of assistance.
		All programs use net income when assessing need.
Delivery Structure	single point of entry with simple application process easier access to all Income Security Programs and services	All GNWT Income Security Programs provide a single point of entry at Government Service Centres throughout the NWT for access to and understanding of programs, as well as improving the system of benefits offered under the Income Security Programs.

**Table II.3-2 GNWT Income Security Model (continued)**

Aspect	Results In:	Description
Program Monitoring and Evaluation	Accountability and measurable results	All GNWT Income Security Programs track progress of individual clients and client groups to ensure the movement toward self-reliance is achieved and outcomes are met. Income Security Programs are based upon the best available data, evidence and analysis. Monitoring, evaluation and reporting are vital operational elements.

Source: GNWT Department of Education, Culture and Employment 2007e.

**Table II.3-3 Changes to the Income Assistance Program**

Aspect of the Income Assistance Program	Previously	As of September 1, 2007
Philosophy and Guiding Principles	"Program of last resort."	"Programs provide adequate financial assistance in combination with supports and services to help people achieve self-reliance."
Client Structure	Productive Choices	In addition to Productive Choices, programs will focus on case management and integrated services to work with clients on reaching long-term goals.
Benefit Rates	Food rates based on survey done every couple of years.	Food rates based on Canada's Nutritious Food Basket and meets Canada's guideline for healthy eating.
	Clothing rates standard across the NWT.	Clothing rates adjusted for cost of living by community.
	No benefit for seniors and persons with disabilities	New incidental benefit for seniors and persons with disabilities
	Single shelter rate set at \$750/month.	Single shelter rate increased to \$900/month
	Incentive to work is \$200/individual/month.	Incentive to work is increased to \$200/individual/month plus 15% surplus.
	Incentive to work is \$400/family/month	Incentive to work increased to \$400/family/month plus 15% of surplus.
	No unearned exemption.	New unearned exemption of \$1,200/year
Delivery Structure	ECE regional/local offices	ECE Government Service Centres

Source: GNWT Department of Education, Culture and Employment 2007b.

## II-4.0 HEALTH AND SOCIAL SERVICES

### II.4.1 WELLNESS PROGRAMS

An indicator of a government's priorities for wellness programs includes the amount of funding allocated for each program. There are 7 wellness programs funded by the territorial government:

- Brighter Futures;
- Canada Prenatal Nutrition Program (CPNP) (First Nation and Inuit component);
- Injury Prevention;
- Aboriginal Diabetes Initiative (ADI);
- Foetal Alcohol Spectrum Disorder Program (FASD);
- National Native Alcohol and Drug Abuse Program (NNADAP); and
- National Aboriginal Youth Suicide Prevention Strategy (NAYSPS).

Brighter Futures and CPNP have budget allocations for all NWT communities. The remaining programs are based on the submission of proposals and therefore, funding supports initiatives in selected communities only. Funding allocated to these programs is presented below by region (Table II.4-1).

**Table II.4-1 Overview of Wellness Program Funding, 2006-2008**

Program	Tłıchq		Yellowknife		All Regions	
	2006-2007	2007-2008	2006-2007	2007-2008	2006-2007	2007-2008
Brighter Futures	441 430	414 848	135 425	135 647	2 806 318	2 707 961
CPNP	110 641	113 727	31 618	10 889	817 343	878 401
Injury Prevention	0	0	0	0	39 401	33 931
ADI	41 601	70 201	6411	46 415	423 226	778 220
FASD	41 826	32 597	64 370	98 684	232 335	294 900
Tobacco (FNIHB)	44 850	0	0	0	225 936	0
NNADAP	191 614	104 002	47 696	24 394	460 409	387 046
NAYSPS	48 035	71 506	0	9975	111 104	398 294
<b>Total</b>	<b>919 995</b>	<b>806 881</b>	<b>285 520</b>	<b>326 003</b>	<b>5 116 072</b>	<b>5 478 753</b>

Sources: GNWT Department of Health and Social Services 2008c; 2009a.

Between 2006-2007 and 2007-2008 wellness program funding in the Tłıchq region decreased by 12% while funding increased by 14% in Yellowknife and by 7% in the NWT. In 2007-2008, over half of the funding allocated to the Tłıchq was through the Brighter Futures program. This program is designed to assist First Nations and Inuit communities in developing community-based approaches to health programs. The purpose is to improve the quality of, and access to, culturally sensitive wellness services in the community. These services are expected to encourage healthy family and community environments that support child development. While the program is intended especially for First Nations and Inuit children from ages 0 to 6, children's needs cannot be separated from those of their families and community. Components to Brighter Futures include mental health, child development, injury prevention, healthy babies, and

parenting skills. The communities determine their priorities and allocate their resources accordingly (GNWT Department of Health and Social Services 2009c).

## **II.4.2 ACCESS TO HEALTH CARE**

The GNWT believes that access to health care services in the NWT is challenged by NWT demographics (i.e., having a small population living in 33 communities, spread across a wide geographic area) and difficulties in recruiting and retaining nurses, physicians, and other health care professionals to work in the north (GNWT Department of Health and Social Services 2006).

Community-based health programs include primary health care clinics, public health services, homecare, school and community health and educational programs (GNWT Department of Health and Social Services 2006). In all but 5 communities these services are delivered by community based nurses, working out of health centres (GNWT Department of Health and Social Services 2006). Physicians are located in 5 of the 33 NWT communities and provide services to other communities through rotational visits (GNWT Department of Health and Social Services 2006).

Within the NWT there is limited access to rehabilitation services, including speech/language, physiotherapy, occupational therapy and audiology (GNWT Department of Health and Social Services 2006). Currently these services are provided to varying degrees through the NWT's 4 hospitals in Hay River, Fort Smith, Inuvik and Yellowknife (GNWT Department of Health and Social Services 2006).

The GNWT accesses the Capital Health Authority and the Cross Cancer Centre in Alberta to provide sub-specialty and complex consultative, diagnostics or surgical services (GNWT Department of Health and Social Services 2006). The extent of the NWT reliance on this relationship is illustrated by the fact that in 2003, over 7000 NWT patients (approximately 16% of the population) received services from an out of territories physician and over 4000 patients (approximately 10% of the population) received out of territories hospital services (either as in or out patients) (GNWT Department of Health and Social Services 2006).

### **II.4.2.1 Tele-Care NWT**

Tele-Care NWT provides a telephone triage and health advice service 24/7 so that residents can access services without the requirement to travel to a health centre (GNWT Department of Health and Social Services 2006). Services are

available in most of the NWT's 11 Aboriginal languages (GNWT Department of Health and Social Services 2006). Call volume increased every year between 2003-2004 and 2006-2007 from 4019 calls to 5323 calls (GNWT Department of Health and Social Services 2008c). Total calls received in this period were 14 361 (GNWT Department of Health and Social Services 2008c).

## II.4.2.2 Hospitals, Medical Clinics and Health Units

The NWT has 4 hospitals (in Hay River, Fort Smith, Inuvik and Yellowknife). Stanton Territorial Hospital, in Yellowknife, provides specialist care for patients including internal medicine, general and orthopaedic surgery, paediatrics, ear, nose and throat surgery, ophthalmology, radiology and psychiatry (GNWT Department of Health and Social Services 2006). These services are provided on site or through community-based clinics (GNWT Department of Health and Social Services 2006). Table II.4-2 lists the health and social service facilities available in the Tłıchǫ communities.

**Table II.4-2 TCSA Health and Social Services Facilities by Community**

Community	Facility Name	Description
Behchokǫ	Marie Adele Bishop Health Centre/Residence	Health Centre
	Jimmy Erasmus Centre	Personal Care Residence
	Behchokǫ Social Services	Social Services Office
Gamètì	Gamètì Health Centre/Residence	Health Centre serviced by Whati and Behchokǫ
	Gamètì Social Services	Social Services Office
Wekweètì	Community Wellness Centre	Health station serviced by Whati and Behchokǫ
	Wekweètì Social Services	Social Services Office
Whatì	Whatì Health Centre/Residence	Health Centre
	Whatì Social Services	Social Services Office

Source: GNWT Health and Social Services 2010, internet site.

## II.4.2.3 Physicians, Nurses and Medical Staff

The 2006 NWT physician survey was done by the NWT Bureau of Statistics on behalf of the Department of Health and Social Services and the NWT Medical Association. The study was designed to examine recruitment and retention issues with physicians in the NWT as well as to solicit input from physicians with respect to areas of concern with practicing in the NWT (NWT Bureau of Statistics 2006c).

Of the 38 practicing physicians who participated in the survey, 30 were



practicing in Yellowknife and 8 in other communities. Most physicians surveyed were satisfied (40%) or very satisfied (50%) with the NWT as a place to practice medicine (NWT Bureau of Statistics 2006c). Common reasons contributing to their decision to practice in the NWT included whether the needs of the community matched their career interests (82%) (NWT Bureau of Statistics 2006c).

Most physicians either had no concerns or minor concerns regarding work at clinics. Approximately 28% of physicians noted both quality of nursing staff and the productivity and efficiency of duties in relation to nursing staff as major concerns. Concerns regarding work and services at hospitals related primarily to the number of nursing staff (half of the physicians surveyed cited this as a major concern) and the diagnostic imaging services available (37% cited this as a major concern). Most physicians also had major concerns with the Department of Health & Social Services relating to the priority given to physician retention and involving physicians in strategic decisions. Relating to life in the physicians community most expressed major concerns regarding the cost of housing, and the cost and time required to travel outside of the NWT but were not concerned with their compensation level compared to other doctors in Canada or in the NWT.

Overall, physicians agreed that the most positive aspects of working in the NWT were the work atmosphere and collegiality in the medical community; the lifestyle, environment and population; and the diversity of practice. The most negative aspects of working in the NWT were administration of both the Department of Health and Social Services and the Health Authorities, and personal and professional isolation.

Five general practice physicians have been allocated to the Tłıchq, Sahtu, and Deh Cho regions (GNWT Department of Health and Social Services 2006). The NWT has also introduced nurse practitioner training through the Aurora College and is committed to hiring nurse practitioners. The 2006-2007 plan was to create 21 new nurse practitioner positions to work in primary care settings. This included 2 nurse practitioners in the Tłıchq region to travel into the Tłıchq communities (GNWT Department of Health and Social Services 2006).

In 2007, the Tłıchq Community Services Agency hired 19 allied health care professionals (GNWT Department of Human Resources 2007). Allied health care professional include audiologists/hearing aide practitioners, dental therapists, laboratory technologists/technicians, nutritionists/dieticians, occupational therapists, ophthalmology technicians, pharmacists, physiotherapists, respiratory therapists, and speech/language pathologists (GNWT Department of Human Resources 2007).

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### **II.4.3 COMMUNITY HEALTH SERVICES SATISFACTION**

In December 2009, the GNWT Department of Health and Social Services released a report of the results of a community health services satisfaction questionnaire for each region in the NWT (GNWT Department of Health and Social Services 2009c). A total of 39 questionnaires were received from people using community health services during the month of November 2009 (15 in Behchokò, 8 in Whatì, and 16 in Gamètì). A total of 478 completed questionnaires were received from people using Yellowknife Health and Social Service Authority community health services in the same month.

Respondents were asked to provide ratings on the care, respect, and communication experienced in their treatment/procedure and dealings with health care professionals, reception/administration, health cleanliness, and interpreter services. Results from the Tłìchq communities indicate a general satisfaction with the health system, including high ratings for respectfulness of health care workers, interpreters, and explanations of treatments and procedures. Lower satisfaction ratings were received from whether the health care worker talked to them about specific things to improve health/prevent illness and whether respondents felt they were involved in decisions affecting their care. Over three-quarters of respondents rated their overall care as good or excellent. Some respondents offered suggestions for improvement including suggestions for staff to improve communication and interactions with clients, the hiring of more staff and reduction of wait times. Community health care services in Yellowknife received higher ratings of satisfaction than services in the Tłìchq communities, with most respondents selecting good or excellent ratings. Respondents offered similar suggestions for improvements to Tłìchq respondents (i.e., hiring more staff and reducing wait times).

### **II.4.4 AMBULANCE SERVICES**

The Stanton Territorial Hospital manages the provision of medevac<sup>2</sup> services in all NWT communities (GNWT Departments of Health and Social Services and Municipal and Community Affairs 2006). In Behchokò, the TCSA operates a 24/7 ambulance service, which provides local services and transportation to Stanton Territorial Hospital (GNWT Departments of Health and Social Services and Municipal and Community Affairs 2006). There are 7 full-time ambulance staff, including 1 full-time trained paramedic. The TCSA rents a parking garage stall for 1 ambulance (GNWT Departments of Health and Social Services and Municipal and Community Affairs 2006). A volunteer force organized by the

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<sup>2</sup> air ambulance services, including a medevac aircraft and medevac medical staff.

community government operates the fire service. There is no snowmobile or boat for emergency use, although the Behchokò RCMP has a boat and will use it to assist in any emergency.

The GNWT Department of Health and Social Services provides funds to the TCSA (GNWT Departments of Health and Social Services and Municipal and Community Affairs 2006). The Agency provides ambulance services in Behchokò and surrounding highway area. The total cost of the ambulance services is approximately \$527 000. The Agency recovers about \$180 000 in user fees. The net cost of the ground ambulance service to the Agency is approximately \$347 000 per year. The Department of Health and Social Services provided approximately \$300 000 in additional funding to the TCSA in 2004-2005 to cover these ambulance costs (GNWT Departments of Health and Social Services and Municipal and Community Affairs 2006).

In the most recent report on ground ambulance service in the NWT (GNWT Departments of Health and Social Services and Municipal and Community Affairs 2006) several community representatives noted that there is no designated GNWT funding for ground ambulance services from a GNWT department. Community representatives identified that they lacked funding for ambulance operations, ambulance capital purchases such as vehicles and parking garages, training and highway services. Community representatives also noted that some GNWT funding exists, but is not available to all providers. For example, the in-house ambulance services in Behchokò are a considerable net cost to the TCSA (GNWT Departments of Health and Social Services and Municipal and Community Affairs 2006). Interviewers suggested that the GNWT should provide funding for ambulance services, for training and provide training directly (GNWT Departments of Health and Social Services and Municipal and Community Affairs 2006).

Stakeholders were also concerned that there is no central organizing body or single point of contact in the GNWT to deal with ambulance services. It was thought that a territorial ambulance coordinator could provide: co-ordination between local fire department and ambulance providers; funding; training; establishment of minimum standards for competency, training, equipment and capacity; and response protocol, particularly highway services (GNWT Departments of Health and Social Services and Municipal and Community Affairs 2006).

Ambulance providers in the NWT commented in the same report that they have a difficult time recruiting and retaining staff and volunteers. Some of the reasons mentioned were:

- low pay or honoraria;
- low job satisfaction due to low call volume;
- horrific accidents that can easily overwhelm a volunteer who has limited training and experience; and
- limited number of potential volunteers within a community. Some potential volunteers are already volunteering at fire departments and other volunteer services (GNWT Departments of Health and Social Services and Municipal and Community Affairs 2006).

Overall; however, most respondents felt that the level of service (as of 2006) to residents was good, and residents were satisfied with the service (GNWT Departments of Health and Social Services and Municipal and Community Affairs 2006). Most representatives felt that there was a good working relationship between health centres and ambulance services providers (GNWT Departments of Health and Social Services and Municipal and Community Affairs 2006).

#### **II.4.5 Tłıchq COMMUNITY JUSTICE PROGRAM**

The Community Justice Program provides programs and services to youth and adults in the Tłıchq region to help reduce the rates of victimization, crime, and incarceration among Tłıchq people. Each Tłıchq community has a Community Justice Coordinator who is responsible for administering the program and Community Justice Committees (Tłıchq Government 2010m, internet site). Four main parts to the program include:

1. Diversion;
2. Community Service Orders;
3. Fine Options Programs; and
4. Programming (Tłıchq Government 2009m, internet site).

#### **II.4.6 CHILD CARE SPACES**

Table II.4-3 lists the number of regulated child care spaces available in the NWT in 2007. There are 67 child care centres and 43 licensed family child care providers in the NWT. Of the 67 child care centres, 22 provide full-day care, 24 are part-day nursery schools/preschools, and 21 are after-school centres (CRRU 2007).

**Table II.4-3 Number of Regulated Child Care Spaces, 2007**

Type of Child Care Space	Number of Regulated Spaces
Centre-based	
infant spaces (0-2 years)	110
preschool spaces (2-5 years)	799
after-school spaces (6-12 years)	450
<i>Total</i>	<i>1,359</i>
Family Child Care Spaces <sup>a</sup>	
infants (0-2 years)	86
preschool spaces (2-5 years)	172
after-school spaces (6-12 years)	86
<i>total</i>	<i>344</i>
<b>Total regulated spaces</b>	<b>1,703</b>

Note: All centres are licensed as full-day spaces even though many operate as part-day centres.

<sup>a</sup> Family child care spaces provide care in a private home for up to 8 children under 12 years (including the caregiver's own children).

Source: CRRU 2007.

In 2005, Alternatives North commissioned a comprehensive study of child care operators in the NWT. The study found that child care facilities were operating at capacity with two-thirds of centres maintaining waiting lists. The highest unmet demand was for infant spaces within day cares and day homes, and pre-school spaces within pre-school programs (Alternatives North 2006).

## II.4.7 EARLY CHILDHOOD AND DAYCARE PROGRAMS

Early childhood and daycare programs and facilities in the Tłıchq communities include the Tłıchq Daycare, CJBS Daycare, and Aboriginal Head Start Preschool in Behchokǫ, Whatı Community Daycare, Gamètı Early Intervention Preschool, and Johnny Arrowmaker Daycare in Wekweètı. The 2010-2011 NWT Budget includes \$600 000 to enhance early childhood programming in rural and remote communities by increasing access to early childhood consultants and increasing contribution funding for early childhood education programs. These programs will include culturally relevant education and support for Aboriginal languages (GNWT 2010a).

## II.4.7 RECREATION FACILITIES

Table II.4-4 shows the number and type of recreation facilities available in Yellowknife, Detah and the Tłıchq communities.

**Table II.4-4 Recreation Facilities**

Community	Recreation Facility						
	Community Hall	Gymnasium	Arena	Swimming Pool	Curling Rink	Campground	Park
Behchokò	1	3	1	2	1	1	3
Whati	0	1	1	0	0	0	0
Gamètì	0	1	0	0	0	0	0
Wekweètì	0	1	0	0	0	0	0
Detah	0	1	0	0	0	0	0
Yellowknife	1	10	2	1	1	3	7

Source: NWT Bureau of Statistics 2008d;e;f;g;h;i.

In its 2010-2011 budget, the GNWT announced \$400 000 to support regional youth sporting events to increase opportunities for training, competition and healthy living for youth in rural and remote communities (GNWT 2010).

## **II.4.8 COUNSELLING AND ADDICTIONS SERVICES**

Counselling and addictions services in the Tłìchq region include the following:

- 2 wellness centres in Behchokò and Whati;
- counsellors in Whati also serve the community of Gamètì;
- counsellors in Behchokò also serve the community of Wekweètì; and
- Tłìchq Healing Path – mental health and addictions strategy.

The TCSA has recently committed to enhance services by organizing education programs, providing family counselling, taking people out on the land for healing programs, and being there to greet and work with everyone returning from treatment centres. The TCSA is also looking to have regional treatment centres that will serve people in their own language (TCSA 2007b).

Counselling and addictions services are also readily available in Yellowknife through organizations including Alcoholics Anonymous, the NWT Division of the Canadian Mental Health Association, Child and Family Services, and the Yellowknife Community Counselling Program.

## **II.4.9 SERVICES FOR THE HOMELESS**

The *Framework for the GNWT Response to Homelessness* (GNWT 2007c) defines people who live without shelter or at emergency or transitional shelters as

homeless. With this definition, most of NWT's homeless are in the larger communities of Yellowknife, Inuvik, and Hay River. Many homeless persons in these larger centres have migrated from various small communities across the NWT (GNWT 2005b; GNWT 2007c). Smaller NWT communities do not have emergency or transitional shelters.

According to preliminary research done by the GNWT, few people are homeless (GNWT 2007c). Still, residents in smaller communities often contend with issues of over-crowding and "couch-surfing" (GNWT 2007c). Over-crowding occurs when a household does not have enough bedrooms considered appropriate for the number of residents. In some communities, cultural and historical factors may lead to larger household sizes that appear as overcrowding in the NWT Housing Needs Survey (GNWT 2007c; NWT Bureau of Statistics 2010i). Generally, the smaller the communities, the greater the incidence of what are considered over-crowded households (GNWT 2007c).

While one of the solutions to over-crowding may be the addition of affordable housing stock, homelessness must be addressed through a suite of social and economic supports. In particular, the *Framework* calls for implementation of recommendations made by the Departments of Health and Social Services, Education, Culture and Employment, and Justice and the NWT Housing Corporation in 2005 (GNWT 2005b) including providing a variety of supports spanning the range of full support (i.e., for those living without shelter or in emergency shelters) to full independence (i.e., those living in private market housing).

Table II.4-5 lists the organizations that provide support to homeless individuals in the NWT and Yellowknife.

**Table II.4-5 Homeless Support Organizations in the North Slave Region**

Organization	Communities	Primary Services
Centre for Northern Families	Yellowknife	emergency shelter and counselling
Churches	NWT-wide	advocacy and emergency shelter in rare circumstances
John Howard Society	NWT-wide	advocacy for offenders
NWT Council of Persons with Disabilities	NWT-wide	advocacy and support for the disabled
municipal government	Yellowknife	facilitation between the territorial government and service providers
RCMP (Yellowknife detachment)	Yellowknife, Detah, N'Dilo, Behchokò, Whati, Gamètì and Wekweètì	emergency shelter for intoxicated single men and women

**Table II.4-5 Homeless Support Organizations in the North Slave Region (continued)**

Organization	Communities	Primary Services
Salvation Army	Yellowknife	emergency shelter for single men, addictions services and counselling
Side Door Youth Centre	Yellowknife	advocacy, shelter for youth age 16-19
Tree of Peace Friendship Centre	Yellowknife	advocacy, education and training
Yellowknife Homeless Coalition	Yellowknife	coordination of community initiatives
Yellowknives Dene First Nation Housing	Detah, N'Dilo	social housing for Yellowknives Dene
YMCA	Yellowknife	emergency shelter for women and transitional housing for families

Source: GNWT Department of Health and Social Services 2005.

## II.4.10 VOLUNTEERISM

In 2005, the Native Women's Association of the NWT, the NWT Literacy Council and YWCA of Yellowknife researched Aboriginal participation in the voluntary sector in the NWT (Imagine Canada 2005). Over half of volunteer groups (58%) employ some Aboriginal staff in management or administrative and program delivery or support positions. The groups estimate that Aboriginal volunteers make up an average of 35% of the total volunteer complement and contribute 39% of all volunteer hours. Like other NWT volunteers, Aboriginal volunteers mainly spend their time delivering programs or services, in board or committee meetings, fundraising, and organizing special events.

Over the course of the research, many people were somewhat surprised, indignant, or confused that volunteering should be the subject of a study. Confusion exists about "volunteering". Generally, it is thought of as giving freely to help or serve is referred to as "helping out". If "volunteering" is used, it is understood as a formal way of helping out:

*"You just don't hear a whole lot about volunteering in smaller communities."*(p.7)

Participants identified several reasons for declining volunteerism, reasons that are not unlike factors affecting volunteering elsewhere in Canada (Imagine Canada 2005):

- Because Aboriginal communities are larger and less homogenous today than in the past, individuals may not feel as strongly connected or



responsible for the well-being of others. For example, helping out was a traditional practice that extended beyond the family to the entire community regardless of the direct personal or family benefit. Today, informal or individual voluntary acts tend to be based on personal relationships rather than a broader commitment to the community. Volunteerism also tends to involve some expectation of personal or family benefit. For example, a parent may not feel compelled to volunteer unless his/her own child can benefit.

- Compared to rural or land-based economies of the past, more people are involved today in the wage economy and in making money for themselves and their families. Within this environment the economic well-being of the individual and his/her family has become more important than the collective or community well-being.
- In recent decades, the economy of Aboriginal communities in the NWT has changed from subsistence harvesting to an industrial wage-based economy. The reasons for this shift are related to greater exposure to material goods, increasing education levels, changing expectations, government social and economic restructuring, and industrial development pressures. The new wage economy coupled with few wage-earning opportunities in small Aboriginal communities and high living costs have created economic pressures along with confusion and tension around paid and unpaid work. Prior unpaid work, for example, for child or elder care or coordinating recreation events have become paid government or private sector work, compounding the confusion and tension:

*“Some Aboriginal people feel they should be paid for volunteering. [But] if it’s a traditional activity no one expects to get paid. But if it is an organization is making money then an Aboriginal person might expect payment.” (p.12)*

- The leadership including the chief doesn’t set an example and doesn’t ask people to help. Soliciting and organizing volunteers to meet collective needs were the responsibilities of the chief in the past. Many people still see the chief having these responsibilities today.
- In many NWT communities, young people and others are engaged in unhealthy behaviours such as drug or alcohol use. Unhealthy lifestyles prevent the transfer of traditional values including the ethic of helping and serving others (Imagine Canada 2005).

Aboriginal volunteers listed benefits such as volunteering as an opportunity to strengthen Aboriginal culture, to be self-determining, and to live with respect and dignity. Meeting community needs (e.g., promoting traditional values, retaining language and culture, guiding youth), improving quality of life and reclaiming community self-reliance were also identified by Aboriginal volunteers. The

authors conclude that meaningfully engaging Aboriginal volunteers and voluntary leaders in the voluntary sector is about continuing and honouring Aboriginal traditions and respecting and empowering Aboriginal people to take ownership of voluntary action (Imagine Canada 2005).

In March 2009, the GNWT Department of Municipal and Community Affairs held a Volunteer Summit to discuss the coordination and management of volunteers; volunteer recruitment; the next generation of volunteers; volunteer training; and volunteer recognition (GNWT Department of Municipal and Community Affairs 2009). The results of the Summit are being used to update an action plan that will identify programs intended to address the following areas:

- improving the training opportunities for volunteers, with a particular emphasis on community capacity building;
- promoting the social and health benefits of volunteering to all residents;
- engaging NWT youth as new volunteers; and
- supporting the development of resources to complement these activities (GNWT Department of Municipal and Community Affairs 2009).

In a 2009 survey of mine workers, over one-quarter of respondents or their families participates in volunteer work through a group or organization (e.g., Elks, Rotary, Search and Rescue) (NWT Bureau of Statistics 2009e).

**APPENDIX III**  
**TŁJCHQ BUSINESSES**

Over one-third (34%) of the NWT Gross Domestic Product (GDP) is generated through mining activities. No other industry contributes a larger share to the territorial GDP (NWT Bureau of Statistics 2009a). Many study area businesses serving the mining industry benefit greatly from these activities and are interested in potential Project-related business opportunities.

Table III-1 shows the number of registered businesses in the NWT, Yellowknife (includes N'Dilo; data for Detah was unavailable), and the Tłıchq communities between 1997 and 2005.

**Table III-1 Number of Registered Businesses, 1997-2005**

Year	Number of Registered Businesses					
	Behchokò	Whati	Gamètì	Wekweètì	Yellowknife <sup>a</sup>	NWT
1997	22	..	4	3	1108	1952
2000	25	11	4	5	1100	2041
2002	25	9	5	5	1159	2167
2005	20	12	5	5	1036	2001

<sup>a</sup> Includes N'Dilo; data for Detah was not available.

.. = data not available

Source: GNWT 2008a.

Between 2002 and 2005 the number of registered businesses fell in Behchokò, Yellowknife and the NWT overall while Whati gained 3 businesses and Gamètì and Wekweètì saw no change.

When the Tłıchq government came into effect 4 August 2005, the Band Councils of Behchokò, Whati, Gamètì, and Wekweètì as well as the Treaty 11 Council business interests were brought together under the umbrella of the Tłıchq Investment Corporation (TIC). The TIC is owned by the Tłıchq government and has several businesses and joint venture partnerships (Tłıchq Government 2010g, internet site) (Table III-2).

**Table III-2 Tłı̨chǫ Investment Corporation Businesses and Subsidiaries, 2009**

<b>TIC Business/Subsidiary</b>	<b>Main Office Location</b>	<b>Percent Owned by TIC</b>
5352 NWT Ltd.	Wekweètì	100%
964053 NWT Ltd. <i>Tłı̨chǫ Landtran Ltd.</i>	Resolute Bay, Nunavut <i>Yellowknife</i>	80% <i>51% (964053 NWT Ltd.)</i>
Aboriginal Diamonds Group Ltd. <i>Dican Ltd.</i>	Yellowknife	33% <i>51% (ADG)</i>
Aboriginal Engineering Services.	Behchokò	100%
Behchokò Development Corporation <i>Tli Cho Explosives</i>	Yellowknife	100% <i>51% (BDC)</i>
Denendeh Development Corporation	Yellowknife	25%
DLFN Holdings Ltd. <i>Tłı̨chǫ Domco Inc.</i>	Wekweètì <i>Yellowknife</i>	100% <i>51% (DLFN Holdings Ltd.)</i>
Dogrib Nation Development Authority Inc.	Yellowknife	100%
Dogrib Nation Trustco Inc.	Yellowknife	100%
Dogrib Power Corporation	Yellowknife	100%
Gamètì Contracting Ltd.	Gamètì	100%
Gamètì Development Corporation	Gamètì	100%
Gamètì Tli Cho Holdings Ltd.	Gamètì	100%
Hozila Naedik'e Ltd.	Wekweètì	100%
I&D Management	Yellowknife	33%
Kete Whii Ltd. <i>Kete Whii Procon</i> <i>Kete Whii Ledcor</i>	Yellowknife	50% <i>50% (Kete Whii Ltd.)</i> <i>50% (Kete Whii Ltd.)</i>
Lac La Martre Development Corporation	Whatì	100%
Nishi Khon Freeway Inc.	Behchokò	100%
Nishi-Khon Enterprises Inc.	Yellowknife	100%
Nishi-Khon Key West Travel Ltd.	Yellowknife	21%
Nishi-Khon Constructors Ltd. <i>NK/PLC Constructors Ltd.</i>	Yellowknife	100% <i>51% (Nishi-Kohn Constructors Ltd.)</i>
Nishi-Khon Engineering Services Ltd. <i>NK/SNC Lavalin</i>	Yellowknife	100% <i>51% (Nishi-Kohn Engineering Services Ltd.)</i>
Nishi-Khon Forestry Services Ltd.	Behchokò	100%
NK Travel & Aviation Services Ltd.	Yellowknife	100%
NSR Employment Solutions	Behchokò	100%
Rae Band Construction	Behchokò	100%
Rae-Edzo Dene Band Development Corporation	Behchokò	100%

**Table III-2 Tłı̨chō Investment Corporation Businesses and Subsidiaries, 2009 (continous)**

TIC Business/Subsidiary	Main Office Location	Percent Owned by TIC
Tli Cho Construction	Gamètì	100%
Tłı̨chō Air Inc.	Yellowknife	52%
Tłı̨chō Engineering & Environmental Services Ltd.	Behchokò	100%
Tłı̨chō Logistics Ltd. <i>Ventures West Ltd. Partnership</i>	Yellowknife	100% 60% (Tłı̨chō Logistics Ltd.)
Tłı̨chō Road Constructors	Yellowknife	100%
Txi Cho Catering Corporation Ltd.	Yellowknife	100%
Wekweèti Development Corporation	Wekweèti	100%
Whatì Community Store	Whatì	100%

Source: Tłı̨chō Government 2010h, internet site.

Major Tłı̨chō suppliers to Fortune include:

- Behchokò Development Corp. which was the business arm of the Dogrib Rae Band and has since been brought together with other former band council business interest under the umbrella of the Tłı̨chō Investment Corporation.
- Kete Whii/Procon is a full service mining contractor and a joint venture partnership between Kete Whii Limited and Procon.
- Nishi Khon SNC Lavalin is a majority Tłı̨chō -owned, multidisciplinary engineering organization with its head office in Yellowknife.
- Tłı̨chō Air is 51 percent owned by the Tłı̨chō government and 49 percent owned by Air Tindi and provides passenger and cargo services to mining companies.
- Tłı̨chō Explosives Ltd. provides a range of explosive products and services to support surface and underground mining, exploration, quarrying, pipeline, and construction industries in the North.
- Tłı̨chō Landtran Ltd. is a Yellowknife-based carrier that offers transportation services between the NWT and the rest of North America, primarily a general freighting operation including trucking resupply of bulk fuel to the mining sector and specializing in moving project cargo and bulk materials over seasonal ice roads to the diamond mines.
- Tłı̨chō Logistics provides mine site management, maintenance and remediation services, and bulk fuel trucking.

Established in 1998 with fewer than 50 employees, today Tłı̨chō Logistics employs 400 people and holds long-term contracts with 2 of the major mines

(MTS 2009). Along the way it has honed its business skills including the ability to successfully navigate strategic alliances which open doors to larger markets. Like any business Tłıchq Logistics has an economic mandate and a responsibility to shareholders. Unlike many other commercial enterprises, they must also fulfil a social mandate for the Tłıchq First Nation: provide training, development and marketable skills that will have value in the future, even if the mining industry shifts focus to another part of the world. As a result, the Northern Aboriginal Business Association (NABA) is seeing more companies exploring options across Canada and in other countries for 10 to 20 years (MTS 2009). What's different today is that Aboriginal leaders have separated their business interests from their political interests, which according to the NABA allows them to see opportunities everywhere in addition to local opportunities (MTS 2009).

In addition to businesses serving the mining industry several small community businesses offer services to local residents and visitors.

Businesses in Behchokò include the following (Tłıchq Government 2010i, internet site):

- Airware Network (satellite and wireless network delivered and managed by Nishi Khon Forestry Service);
- Behchokò Towing Services;
- F.C. Services Ltd. (convenience store and gas station);
- First North Productions (audio/visual and printed media services);
- Frontier Coachlines (bus service to and from Yellowknife, communities along Highway 3 and connecting service with Greyhound);
- Northern Gas and Convenience
- Our Video Store
- The Northern Store (grocery store);
- Trappers Hideaway Restaurant; and
- Rabesca Resources Ltd. (hospitality (i.e., Sah Naji Kwe Wilderness Spa and Meeting Place), management consulting and cultural integration workshops).

Whatì businesses include the Lakeview Bed and Breakfast and Convenience Store and Wha Ti Ko Gha K'aode (Whatì Community Store) (Tłıchq Government 2010j, internet site).

In Gamètì, there are several businesses operated by the Gamètì Development

Corporation included the motel, the gas station and Aurora Caribou and Fishing Camp. Other businesses include the Hottah Lake Lodge and the Rae Lakes General Store Ltd (Tłıchq Government 2010k, internet site).

In Wekweèti, the Wekweèti Development Corporation, the Hozila Naedik'e General Store, Dechi Laoti First Nation Holding and 5352 NWT Ltd are 100% owned by the Tłıchq Investment Corporation. Services in the community members include fuel delivery, gas station, general store, taxi service, post office, rental properties and the Wekweèti Hotel/Snare Lake Lodge (Tłıchq Government 2010l, internet site).



## **APPENDIX IV**

### **NWT 2006 ADDICTIONS SURVEY RESULTS**

**Table IV-1 Profile of Typical Weekly Gambling Activity, 2006**

Sample Characteristics	Total		Don't Gamble		Gamble Under \$20		Gamble \$20 or More	
	#	%	#	%	#	%	#	%
Persons 15 year and over	31 759	100	8926	28	9647	30	11 246	35
<b>Gender</b>								
Male	16 539	100	4437	27	5399	33	5878	36
Female	15 220	100	4489	30	4249	28	5368	35
<b>Age</b>								
15-24	6757	100	2246	33	1583	23	2406	36
25-39	10 571	100	2880	27	3155	30	4039	38
40-59	11 121	100	2973	27	3838	35	3530	32
60 and over	3258	100	787	24	1072	33	1258	39
<b>Employment</b>								
Employed	22 338	100	5836	26	7474	34	7660	34
Not employed	9370	100	3091	33	2174	23	3585	38
<b>Educational Attainment</b>								
Less than grade 9	3262	100	786	24	580	18	1767	54
Grade 9-11	7592	100	2219	29	1467	19	3539	47
High school diploma	6471	100	1681	26	2207	34	2305	36
Trades certificate or diploma	2764	100	717	26	915	33	1075	39
College certificate or diploma	5556	100	1251	23	2239	40	1626	29
University degree	6064	100	2272	38	2239	37	933	15
<b>Income</b>								
Under \$20 000	9113	100	3133	34	1941	21	3527	39
\$20 000-\$39 999	5310	100	898	17	2123	40	2007	38
\$40 000-\$59 999	5758	100	1281	22	1956	34	2357	41
\$60 000 or more	9190	100	2908	32	3045	33	2441	27

**Table IV-1 Profile of Typical Weekly Gambling Activity, 2006 (continued)**

Sample Characteristics	Total		Don't Gamble		Gamble Under \$20		Gamble \$20 or More	
	#	%	#	%	#	%	#	%
<b>Ethnicity</b>								
Aboriginal	15 303	100	3645	24	3520	23	7618	50
Aboriginal male	7697	100	2081	27	1698	22	3698	48
Aboriginal female	7606	100	1564	21	1822	24	3920	52
Non-Aboriginal	16 411	100	5281	32	6127	37	3595	22
Non-Aboriginal male	8797	100	2355	27	3700	42	2148	24
Non-Aboriginal female	7614	100	2926	38	2427	32	1447	19
<b>Yellowknife</b>								
Persons 15 years and over	14 548	100	4684	32	5066	35	3403	23
Male	7437	100	1944	26	3102	42	1777	24
Female	7111	100	2740	39	1964	28	1626	23
Aboriginal	2984	100	833	28	952	32	932	31
Non-Aboriginal	11 550	100	3851	33	4114	36	2470	21
<b>Regional Centres</b>								
Persons 15 years and over	7233	100	1959	27	2844	39	2082	29
Male	3753	100	989	26	1508	40	1133	30
Female	3480	100	970	28	1336	38	949	27
Aboriginal	3702	100	998	27	1202	33	1357	37
Non-Aboriginal	3531	100	962	27	1642	47	725	21
<b>Rest of Communities</b>								
Persons 15 years and over	9977	100	2283	23	1736	17	5761	58
Male	5348	100	1504	28	788	15	2968	56
Female	4629	100	779	17	948	21	2793	60
Aboriginal	8615	100	1815	21	1365	16	5329	62
Non-Aboriginal	1331	100	468	35	371	28	401	30

Source: NWT Bureau of Statistics 2006a.

**Table IV-2 Profile of Self-Reported Mental Health, 2006**

Sample Characteristics	Total		Excellent or Very Good			Good			Fair or Poor		
	#	%	#	%	% Δ 2004	#	%	% Δ 2004	#	%	% Δ 2004
Persons 15 year and over	31 759	100	20 263	64	4	9790	30.8	-3	1642	5	-1
<b>Gender</b>											
Male	16 539	100	10 152	61	1	5355	32.4	-1	989	6	1
Female	15 220	100	10 111	66	7	4436	29.1	-5	653	4	-3
<b>Age</b>											
15-24	6757	100	3783	56	2	2712	40.1	3	262	4	-5
25-39	10 571	100	7674	73	8	2745	26.0	-5	152	1	-3
40-59	11 121	100	7054	63	4	3237	29.1	-7	810	7	3
60 and over	3258	100	1739	53	-1	1069	32.8	3	419	13	-3
<b>Employment</b>											
Employed	22 338	100	15 382	69	2	6082	27.2	-3	841	4	1
Not employed	9370	100	4881	52	8	3708	39.6	-3	750	8	-5
<b>Educational attainment</b>											
Less than grade 9	3262	100	1201	37	-1	1383	42.4	-1	634	19	1
Grade 9-11	7592	100	4345	57	14	2818	37.1	-10	429	6	-3
High school diploma	6471	100	4001	62	<1	2240	34.6	2	230	4	-6
Trades certificate or diploma	2764	100	1840	67	26	750	27.1	-23	154	6	-4
College certificate or diploma	5556	100	4030	73	6	1421	25.6	-6	75	1	-1
University degree	6064	100	4847	80	-9	1148	18.9	8	69	1	1
<b>Income</b>											
Under \$20 000	9113	100	4930	54	10	3325	36.5	-8	843	9	-2
\$20 000-\$39 999	5310	100	3233	61	-1	1811	34.1	<1	237	5	1
\$40 000-\$59 999	5758	100	3744	65	2	1790	31.1	1	204	4	-3
\$60 000 or more	9190	100	7176	78	3	1743	19.0	-5	271	3	2

**Table IV-2 Profile of Self-Reported Mental Health, 2006 (continued)**

Sample Characteristics	Total		Excellent or Very Good			Good			Fair or Poor		
	#	%	#	%	% Δ 2004	#	%	% Δ 2004	#	%	% Δ 2004
<b>Ethnicity</b>											
Aboriginal	15 303	100	7987	52	8	6027	39.4	-6	1223	8	-2
Aboriginal male	7697	100	3859	50	4	3073	39.9	-5	720	9	2
Aboriginal female	7606	100	4128	54	13	2954	38.8	-8	503	7	-5
Non-Aboriginal	16 411	100	12 244	75	1	3750	22.9	-1	418	3	<1
Non-Aboriginal male	8797	100	6261	71	-1	2268	25.8	1	269	3	<1
Non-Aboriginal female	7614	100	5983	79	3	1482	19.5	-3	149	2	<1
<b>Yellowknife</b>											
Persons 15 years and over	14 548	100	10184	70	-3	3985	27.4	3	380	3	-1
Male	7437	100	5030	68	-4	2188	29.4	6	220	3	-1
Female	7111	100	5154	73	-1	1797	25.3	1	160	2	0
Aboriginal	2984	100	1826	61	-2	1085	36.4	1	73	2	1
Non-aboriginal	11 550	100	8358	72	-2	2886	25.0	3	307	3	-1
<b>Regional centres</b>											
Persons 15 years and over	7233	100	5151	71	5	1636	22.6	-6	383	5	0
Male	3753	100	2494	67	<1	918	24.5	-3	298	8	2
Female	3480	100	2657	76	11	718	20.6	-9	85	2	-2
Aboriginal	3702	100	2337	63	9	1028	27.8	-9	273	7	-2
Non-Aboriginal	3531	100	2813	80	2	608	17.2	-5	110	3	3
<b>Rest of Communities</b>											
Persons 15 years and over	9977	100	4929	49	13	4170	41.8	-10	879	9	-2
Male	5348	100	2628	49	8	2249	42.1	-10	471	9	2
Female	4629	100	2301	50	18	1921	41.5	-11	408	9	-7
Aboriginal	8615	100	3824	44	11	3913	45.4	-8	877	10	-3
Non-Aboriginal	1331	100	1073	81	24	256	19.2	-25	1	<1	<1

Source: NWT Bureau of Statistics 2006a.

**Table IV-3 Profile of Alcohol Consumption, 2006**

Sample Characteristics	Total		Current Drinker			Former Drinker			Never Drank		
	#	%	#	%	% Δ 2004	#	%	% Δ 2004	#	%	% Δ 2004
Persons 15 years and over	31 759	100	24 684	78	<1	5 300	17	0	1 775	6	<1
<b>Gender</b>											
Male	16 539	100	13 816	84	3	2 121	13	-2	602	4	-1
Female	15 220	100	10 868	71	-3	3 180	21	2	1 173	8	2
<b>Age</b>											
15-24	6757	100	5392	80	-3	668	10	6	696	10	-3
25-39	10 571	100	9205	87	3	1034	10	-6	332	3	3
40-59	11 121	100	8486	76	2	2322	21	-1	311	3	-1
60 and over	3258	100	1587	49	-8	1263	39	8	409	13	0
<b>Employment</b>											
Employed	22 338	100	18 530	83	-1	3043	14	<1	765	3	1
Not employed	9370	100	6104	65	-1	2258	24	2	1009	11	-1
<b>Educational attainment</b>											
Less than grade 9	3262	100	1727	53	-4	1141	35	1	393	12	3
Grade 9-11	7592	100	5861	77	4	1223	16	-3	508	7	-1
High school diploma	6471	100	5264	81	3	1037	16	2	171	3	-4
Trades certificate or diploma	2764	100	2072	75	-12	593	22	12	99	4	<1
College certificate or diploma	5556	100	4366	79	-5	897	16	2	293	5	3
University degree	6064	100	5343	88	2	409	7	-6	311	5	3
<b>Income</b>											
Under \$20 000	9113	100	6266	69	-2	1897	21	3	949	10	-1
\$20 000-\$39 999	5310	100	4188	79	-4	1017	19	3	104	2	1
\$40 000-\$59 999	5758	100	4500	78	-1	886	15	-3	372	7	5
\$60 000 or more	9190	100	7869	86	<1	1121	12	-1	200	2	1

**Table IV-3 Profile of Alcohol Consumption, 2006 (continued)**

Sample Characteristics	Total		Current Drinker			Former Drinker			Never Drank		
	#	%	#	%	% Δ 2004	#	%	% Δ 2004	#	%	% Δ 2004
<b>Ethnicity</b>											
Aboriginal	15 303	100	10 590	69	-1	3654	24	1	1061	7	1
Aboriginal male	7697	100	5954	77	3	1446	19	-2	298	4	1
Aboriginal female	7606	100	4636	61	-6	2208	29	3	763	10	3
Non-Aboriginal	16 411	100	14 062	86	1	1634	10	-1	715	4	<1
Non-Aboriginal male	8797	100	7830	89	3	662	8	-2	305	4	-1
Non-Aboriginal female	7614	100	6232	82	<1	972	13	<1	410	5	0
<b>Yellowknife</b>											
Persons 15 years and over	14 548	100	12 110	83	2	1544	11	-3	895	6	<1
Male	7437	100	6355	86	3	675	9	-2	407	6	-1
Female	7111	100	5755	81	2	869	12	-4	488	7	2
Aboriginal	2984	100	2144	72	6	477	16	-8	363	12	2
Non-aboriginal	11 550	100	9966	86	2	1054	9	-2	531	5	<1
<b>Regional Centres</b>											
Persons 15 years and over	7233	100	5252	73	-8	1557	22	8	424	6	-1
Male	3753	100	3174	85	<1	488	13	2	91	2	-2
Female	3480	100	2078	60	-16	1069	31	16	333	10	0
Aboriginal	3702	100	2303	62	-16	1146	31	17	253	7	-1
Non-Aboriginal	3531	100	2950	84	2	411	12	-1	170	5	-1
<b>Rest of Communities</b>											
Persons 15 years and over	9977	100	7322	73	2	2199	22	-3	456	5	1
Male	5348	100	4287	80	4	957	18	-4	104	2	<1
Female	4629	100	3035	66	-1	1242	27	-1	352	8	2
Aboriginal	8615	100	6143	71	3	2029	24	-3	442	5	1
Non-Aboriginal	1331	100	1147	86	-3	170	13	2	14	1	1

Δ = change.

Source: NWT Bureau of Statistics 2006a.

**Table IV-4 Profile of Volume of Alcohol Typically Consumed per Occasion, 2006**

Sample Characteristics	Current Drinker		5 or More Drinks			3 or 4 Drinks			1 or 2 Drinks		
	#	%	#	%	% Δ 2004	#	%	% Δ 2004	#	%	% Δ 2004
Persons 15 year and over	24 684	100	8945	36	-3	5614	23	4	10 124	41	1
<b>Gender</b>											
Male	13 816	100	5738	42	-6	3223	23	8	4855	35	<1
Female	10 868	100	3,207	30	<1	2392	22	-1	5269	49	2
<b>Age</b>											
15-24	5392	100	2841	53	2	1247	23	-4	1305	24	4
25-39	9205	100	3393	37	-10	2198	24	12	3614	39	-1
40-59	8486	100	2351	28	1	1920	23	1	4216	50	-1
60 and over	1587	100	361	23	3	250	16	1	976	62	3
<b>Employment</b>											
Employed	18 530	100	6268	34	-3	4134	22	5	8127	44	-1
Not employed	6104	100	2677	44	-1	1430	23	2	1997	33	4
<b>Educational attainment</b>											
Less than grade 9	1727	100	809	47	-10	431	25	12	487	28	5
Grade 9-11	5861	100	3024	52	-5	1402	24	2	1435	25	7
High school diploma	5264	100	2004	38	-7	1180	22	2	2080	40	6
Trades certificate or diploma	2072	100	1023	49	16	305	15	-3	745	36	-13
College certificate or diploma	4366	100	1288	30	1	1024	24	8	2053	47	-6
University degree	5343	100	798	15	-6	1221	23	4	3324	62	1
<b>Income</b>											
Under \$20 000	6266	100	2902	46	-1	1434	23	3	1931	31	3
\$20 000-\$39 999	4188	100	1709	41	-12	1016	24	9	1463	35	4
\$40 000-\$59 999	4500	100	1713	38	3	1050	23	7	1737	39	-9
\$60 000 or more	7869	100	2033	26	-2	1539	20	-1	4296	55	4



**Table IV-4 Profile of Volume of Alcohol Typically Consumed per Occasion, 2006 (continued)**

Sample Characteristics	Current Drinker		5 or More Drinks			3 or 4 Drinks			1 or 2 Drinks		
	#	%	#	%	% Δ 2004	#	%	% Δ 2004	#	%	% Δ 2004
<b>Ethnicity</b>											
Aboriginal	10 590	100	5517	52	-8	2394	23	4	2677	25	8
Aboriginal male	5954	100	3045	51	-16	1446	24	11	1463	25	10
Aboriginal female	4636	100	2472	53	1	948	20	-5	1214	26	7
Non-Aboriginal	14 062	100	3428	24	<1	3188	23	4	7447	53	-3
Non-Aboriginal male	7830	100	2693	34	1	1745	22	5	3392	43	-5
Non-Aboriginal female	6232	100	735	12	<1	1443	23	3	4055	65	-1
<b>Yellowknife</b>											
Persons 15 years and over	12 110	100	3617	30	2	2771	23	7	5722	47	-8
Male	6355	100	2454	39	2	1462	23	10	2439	38	-10
Female	5755	100	1163	20	2	1309	23	4	3283	57	-5
Aboriginal	2144	100	1130	53	4	428	20	8	587	27	-11
Non-aboriginal	9966	100	2487	25	1	2343	24	7	5135	52	-6
<b>Regional Centres</b>											
Persons 15 years and over	5252	100	2050	39	3	776	15	5	2426	46	4
Male	3174	100	1354	43	1	534	17	-6	1286	41	5
Female	2078	100	696	34	1	242	12	-4	1140	55	5
Aboriginal	2303	100	1288	56	<1	262	12	-8	753	33	9
Non-Aboriginal	2950	100	763	26	4	514	18	-2	1673	57	-2
<b>Rest of Communities</b>											
Persons 15 years and over	7322	100	3278	45	-15	2068	28	6	1976	27	14
Male	4287	100	1930	45	-23	1227	29	16	1130	26	13
Female	3035	100	1348	44	-3	841	28	-8	846	28	15
Aboriginal	6143	100	3099	50	-16	1706	28	7	1337	22	15
Non-Aboriginal	1147	100	179	16	-13	331	29	-2	638	56	17

Δ = change.

Source: NWT Bureau of Statistics 2006a.

**Table IV-5 Profile of Frequency of Alcohol Consumption, 2006**

Sample Characteristics	Current Drinker		More than Once a Week			Once a Week			Less than Once a Week		
	#	%	#	%	% Δ 2004	#	%	% Δ 2004	#	%	% Δ 2004
Persons 15 year and over	24 684	100	7179	29	9	4102	17	-3	13 403	54	-6
<b>Gender</b>											
Male	13 816	100	4803	35	7	2294	17	-6	6719	49	-1
Female	10 868	100	2376	22	11	1808	17	0	6684	62	-11
<b>Age</b>											
15-24	5392	100	984	18	<1	851	16	-1	3558	66	1
25-39	9205	100	2621	29	10	1551	17	-8	5033	55	-3
40-59	8486	100	2985	35	10	1411	17	-1	4090	48	-9
60 and over	1587	100	589	37	26	276	17	1	722	46	-27
<b>Employment</b>											
Employed	18 530	100	6093	33	11	3346	18	-2	9091	49	-9
Not employed	6104	100	1086	18	3	756	12	-6	4261	70	4
<b>Educational attainment</b>											
Less than grade 9	1727	100	390	23	14	195	11	-11	1142	66	-4
Grade 9-11	5861	100	1103	19	2	594	10	-2	4164	71	1
High school diploma	5264	100	1655	31	15	1072	20	-5	2537	48	-10
Trades certificate or diploma	2072	100	710	34	3	523	25	10	840	41	-13
College certificate or diploma	4366	100	1586	36	17	763	18	-3	2017	46	-14
University degree	5343	100	1734	33	6	957	18	-4	2652	50	-2
<b>Income</b>											
Under \$20 000	6266	100	1160	19	5	620	10	-10	4485	72	6
\$20 000-\$39 999	4188	100	853	20	6	900	22	0	2435	58	-6
\$40 000-\$59 999	4500	100	1393	31	15	828	19	-6	2279	51	-9
\$60 000 or more	7869	100	3127	40	7	1392	18	-1	3350	43	-6

**Table IV-5 Profile of Frequency of Alcohol Consumption, 2006 (continued)**

Sample Characteristics	Current Drinker		More than Once a Week			Once a Week			Less than Once a Week		
	#	%	#	%	% Δ 2004	#	%	% Δ 2004	#	%	% Δ 2004
<b>Ethnicity</b>											
Aboriginal	10 590	100	2186	21	7	1765	17	-4	6638	63	-3
Aboriginal male	5954	100	1462	25	8	1002	17	-8	3490	59	1
Aboriginal female	4636	100	724	16	5	763	17	2	3148	68	-6
Non-Aboriginal	14 062	100	4992	36	11	2337	17	-3	6733	48	-8
Non-Aboriginal male	7830	100	3341	43	18	1292	17	-3	3197	41	-4
Non-Aboriginal female	6232	100	1651	27	16	1045	17	-1	3536	57	-14
<b>Yellowknife</b>											
Persons 15 years and over	12 110	100	4063	34	6	2211	18	-1	5835	48	-5
Male	6355	100	2535	40	1	1239	20	-3	2581	41	2
Female	5755	100	1528	27	11	972	17	<1	3254	57	-12
Aboriginal	2144	100	679	32	-5	457	21	-2	1009	47	7
Non-aboriginal	9966	100	3385	34	8	1754	18	-1	4826	48	-7
<b>Regional Centres</b>											
Persons 15 years and over	5252	100	1714	33	15	615	12	-12	2922	56	-3
Male	3174	100	1265	40	16	341	11	-15	1567	49	-1
Female	2078	100	449	22	11	274	13	-8	1355	65	-3
Aboriginal	2303	100	539	23	8	276	12	-14	1488	65	6
Non-Aboriginal	2950	100	1175	40	20	339	12	-10	1435	49	-10
<b>Rest of Communities</b>											
Persons 15 years and over	7322	100	1401	19	9	1276	17	1	4645	63	-10
Male	4287	100	1002	23	8	714	17	-3	2571	60	-5
Female	3035	100	399	13	10	562	19	6	2074	68	-16
Aboriginal	6143	100	970	16	10	1033	17	1	4098	67	-10
Non-Aboriginal	1147	100	432	38	11	243	21	3	472	41	-14

Δ = change.

Source: NWT Bureau of Statistics 2006a.

**Table IV-6 Profile of Marijuana Use, 2006**

Sample Characteristic	Total	Marijuana or Hash			
		Ever Used	% of total	Used in Past 12 Months	% of Total
Persons 15 years and over	31 759	19 016	60	6322	20
<b>Gender</b>					
Male	16 539	10 706	65	4301	26
Female	15 200	8311	55	2021	13
<b>Age</b>					
15-24	6757	4340	64	2410	36
25-39	10 571	7003	66	2377	23
40-59	11 121	6864	62	1479	13
60 years and over	3258	784	24	55	2
<b>Employment</b>					
Employed	22 338	14 280	64	4181	19
Not employed	9370	4738	51	2140	23
<b>Educational attainment</b>					
Less than grade 9	3262	1577	49	554	17
Grade 9-11	7592	4791	63	2691	35
High school diploma	6471	4419	68	1557	24
Trades certificate or diploma	2764	1613	58	568	21
College certificate or diploma	5556	3193	58	664	12
University degree	6064	3422	56	288	5
<b>Incom</b>					
Under \$20 000 per year	9133	5103	56	2697	30
\$20 000-\$39 999 per year	5310	3170	60	1238	23
\$40 000-\$59 999 per year	5578	3786	66	1077	19
\$60 000 or more per year	9190	5811	63	966	11

**Table IV-6 Profile of Marijuana Use, 2006 (continued)**

Sample Characteristic	Total	Marijuana or Hash			
		Ever Used	% of total	Used in Past 12 Months	% of Total
Ethicity					
Aboriginal	15 303	10 053	66	4197	27
Aboriginal males	7697	5638	73	2765	36
Aboriginal females	7606	4415	58	1432	19
Non-Aboriginals	16 411	8932	54	2126	13
Non-Aboriginal males	8797	5036	57	1536	18
Non-Aboriginal females	7614	3896	51	590	8
Yellowknife					
Persons 15 years and over	11 548	8402	58	2187	15
Males	7437	4587	62	1485	20
Females	7111	3815	54	702	10
Aboriginal	2984	2111	71	593	20
Non-Aboriginal	11 550	6292	55	1595	14
Regional centres					
Persons 15 years and over	7233	4082	56	1008	14
Males	3753	2182	58	656	18
Females	3480	1900	55	352	10
Aboriginal	3702	2360	64	689	19
Non-Aboriginal	3531	1722	49	319	9
Rest of Communities					
Persons 15 years and over	9977	6532	66	3127	31
Males	5348	3937	74	2160	40
Females	4629	2595	56	967	21
Aboriginal	8615	5584	65	2915	34
Non-Aboriginal	1331	918	69	211	16

Source: NWT Bureau of Statistics 2006a.

**Table IV-7 Profile of Current Smokers, 2006**

Sample Characteristic	Total	Current Smoker		
		#	% of total	% of current smokers
Persons 15 years and over	31 759	12 971	41	100
<b>Gender</b>				
Male	16 539	7346	44	57
Female	15 220	5626	37	43
<b>Age</b>				
15-24	6757	3089	46	24
25-39	10 571	4407	42	34
40-59	11 121	4591	41	35
60 years and over	3258	844	26	7
<b>Employment</b>				
Employed	22 338	8883	40	69
Not employed	9370	4088	44	32
<b>Educational attainment</b>				
Less than grade 9	3262	1524	47	12
Grade 9-11	7592	4339	57	33
High school diploma	6471	2792	43	22
Trades certificate or diploma	2764	1250	45	10
College certificate or diploma	5556	2104	38	17
University degree	6064	962	16	7
<b>Income</b>				
Under \$20 000 per year	9113	4184	46	32
\$20 000-\$39 999 per year	5310	2410	45	19
\$40 000-\$59 999 per year	5758	2482	43	19
\$60 000 or more per year	9190	2664	29	21

**Table IV-7 Profile of Current Smokers, 2006 (continued)**

Sample Characteristic	Total	Current Smoker		
		#	% of total	% of current smokers
Ethnicity				
Aboriginal	15 303	8261	54	64
Non-Aboriginal	16 411	4710	29	36
Yellowknife				
Persons 15 years and over	14 548	4361	30	34
Males	7437	2419	33	19
Females	7111	1942	27	15
Aboriginal	2984	1370	46	11
Non-Aboriginal	11 550	2991	26	23
Regional centres				
Persons 15 years and over	7233	3250	45	25
Males	3753	1987	53	15
Females	3480	1263	36	10
Aboriginal	3702	1951	53	15
Non-Aboriginal	3531	1297	37	10
Rest of Communities				
Persons 15 years and over	9977	5360	54	41
Males	5348	2939	55	23
Females	4629	2421	52	19
Aboriginal	8615	4939	57	38
Non-Aboriginal	1331	421	32	3

Source: NWT Bureau of Statistics 2006a.