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**CENTRE FOR
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OF LIVING
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**CREATING OPPORTUNITY IN INUIT
NUNANGAT: THE CRISIS IN INUIT
EDUCATION AND LABOUR MARKET
OUTCOMES**

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Creating Opportunity in Inuit Nunangat: The Crisis in Inuit Education and Labour Market Outcomes

Abstract

This report documents the labour market, educational, and economic development outcomes for the Inuit in Inuit Nunangat by examining past and present labour market outcomes and tying these together with developments in the major industries across the four regions of Inuit Nunangat. The current status and future outlook for employment and growth in the dominant sectors of Inuit Nunangat, namely the public sector and mining, are also examined. In addition, the effects of low education, limited skills, high living costs, reduced mobility, and insufficient housing, all common factors of life in Inuit Nunangat, are discussed. Finally, the report makes some broad recommendations for how the crisis in labour market and educational outcomes among the Inuit may be ameliorated, while identifying further areas of study that could help increase the understanding of Inuit Nunangat's economic performance.

Creating Opportunity in Inuit Nunangat: The Crisis in Inuit Education and Labour Market Outcomes

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Executive Summary

Introduction

This report seeks to shed light on the economic situation of Canada's Inuit, specifically those residing within Inuit Nunangat, the officially designated Inuit-claimed regions in the north of Canada. While it is generally known that Aboriginal Canadians suffer from worse labour market outcomes than non-Aboriginal Canadians, there is surprisingly little research focusing on the Inuit in particular, and practically nothing that examines Inuit labour market outcomes in the context of Inuit Nunangat and its four composite regions. Therefore, this report seeks to document the current situation and future outlook for Inuit labour force participation by examining common labour market indicators, as well as the underlying structural circumstances driving the results of these labour market indicators, such as educational attainment and sectoral job availability.

Profile of Inuit Nunangat

- Inuit Nunangat is a huge geographic area in Canada's north that encompasses all of Nunavut as well as parts of the Northwest Territories, Quebec, and Labrador. As of 2011, approximately 43,000 Inuit resided within Inuit Nunangat, which represents about two-thirds of Canada's entire Inuit population of 59,000 people. In terms of population shares, Nunavut is the single largest region, accounting for 61.9 per cent of Inuit Nunangat's Inuit population, followed by Nunavik (24.8 per cent), Inuvialui region (7.9 per cent), and Nunatsiavut (5.4 per cent).
- Inuit Nunangat's population is very young relative to Canada's population with 35.6 per cent below the age of 15 compared to only 16.8 per cent below the age of 15. Furthermore, the Inuit population is projected to increase at rates above that of the Canadian population, at 1.2-1.7 per cent per year compared to 1.0 per cent per year, reaching 86,000-95,000 by 2036. This represents a large number of people who will enter the labour force in the coming decades. Tempering this population increase is a growing number of people who are choosing to leave Inuit Nunangat and migrate south, though the scope and extent of this migration is unclear.
- While Inuit Nunangat has seen substantial economic growth across a variety of sectors since 2000, labour market outcomes are substantially worse than those of the Canadian population. In 2011, labour force participation, unemployment and employment rates, both aggregated across Inuit Nunangat and in each of the four separate regions, significantly lagged those of the Canadian labour market. While Nunavik and Nunatsiavut have seen some improvement in their labour force participation and employment rates since 1996, Inuit Nunangat has seen its position stagnate or deteriorate due to worsened performance in Nunavut, the single largest region.

- Approximately two-thirds of the Inuit population of Inuit Nunangat have no educational certificate, diploma, or degree, while only 13 per cent of Canadians have no attained no educational certificate. There has been very little change in the proportion of Inuit with a high school diploma since 1996.

Major Sectors

- The public sector, encompassing public administration, education, and healthcare, is the single largest sector in Inuit Nunangat, both in terms of employment and output. Public sector employment tends to be very stable, and therefore unaffected by economic downturns, especially in Nunavut, where most territorial financing is provided by the federal government. Inuit employment in Nunavut's public sector has been increasing since 1999, but largely in lower-level positions. Most potential for increased Inuit employment in this sector will come not from new jobs, but rather from increased Inuit participation in the public sector.
- There are currently four mines in operation in Inuit Nunangat, Meadowbank gold mine, Mary River iron mine, Voisey's Bay nickel mine, and Raglan nickel mine. There are an additional 12 mines currently in planning or development. The specific trends in nickel, zinc, gold, uranium, iron, and diamond prices in the near and medium-term will largely determine whether the four existing, producing mines will expand, shrink or stay at the same level, and whether new mines will open. Current commodity price forecasts point toward modest to severe decreases in prices for most of the abovementioned commodities, except for uranium, which is projected to see an increase in price and industry activity. Assuming that the negative forecasts do not transpire, the mining sector has the potential to create thousands of jobs across Inuit Nunangat. Though irregularly reported, the Inuit proportion of mine workers tends to be relatively low due to the requirement of highly skilled workers in mining.
- There is potential for innovation and growth across Inuit Nunangat in sectors that incorporate traditional Inuit activities and knowledge, ranging from the arts to fishing to local service provision. Some industries, such as fishing, have seen growth and represent an increased share of Inuit employment. There are also a substantial number of Inuit artists and craftspeople that, if provided with enhanced infrastructure to connect with potential buyers, could better utilize their skills. Tourism, already a fairly established industry in some parts of Inuit Nunangat, has the potential to increase significantly due to Inuit Nunangat's cultural and natural wealth.

Barriers to Economic Development

- The high cost of living in Canada's north, caused by its vastness and lack of infrastructure, inhibits self-employment by limiting the opportunities people have to start their own businesses. Excessive start-up costs, lack of demand for non-essential goods and limited capital lessen this opportunity even more.

- Inuit Nunangat's public school systems suffer from a lack of student engagement, leading to high school graduation rates of 25 per cent across Inuit Nunangat. Most students are left without any sort of educational credentials, severely limiting their ability to access available employment opportunities. Access to postsecondary education, especially for those without credentials, is fairly limited in Inuit Nunangat. A number of recommendations have been made by both the Nunavut Literacy Council and the National Committee on Inuit Education to improve both the secondary and postsecondary education systems.
- The distinct lack of affordable housing in Inuit Nunangat limits the mobility of people looking for employment, as they are restricted to areas in which there are family members or friends with whom they can live. Additionally, the structure of public housing systems, utilized for example by the vast majority of Inuit in Nunavut, is such that increases in income derived from working can decrease overall income by increasing rent payments, which incentivizes people not to accept or look for offers of work.
- Finally, mental health issues inhibit both the supply and demand of labour, while the lack of child care inhibits the supply of labour.

Creating Opportunity in Inuit Nunangat: The Crisis in Education and Labour Market Outcomes¹

Section I: Introduction

A. Motivation and Background Information

Aboriginal populations in Canada have long suffered worse socioeconomic outcomes than the Canadian population as a whole. Aboriginal Canadians are far more likely to experience acute poverty, lack educational credentials, and suffer from a lack of access to economic opportunities, all of which stands in stark contrast to the relative wealth and prosperity enjoyed by most other groups of Canadians. Though the Canadian economy is productive, generating output and employment at levels that make Canada one of the richest nations in the world, Aboriginal Canadians have largely not been able to access the resulting benefits and opportunities. One could accurately say that among Canadian Aboriginal groups, including the Inuit who are the focus of this report, there is a severe educational and labour market crisis that, left unaddressed, will continue to leave these populations far worse off than the Canadian population as a whole for the foreseeable future.

The Inuit in Canada not only face the structural and historical challenges presented by Canada's chequered past with all Aboriginal Canadians, but also face unique circumstances presented by the northern areas of Canada in which most Inuit make their home. This area of the north, encompassing the whole territory of Nunavut, part of the Northwest Territories, as well as parts of Quebec and Labrador, is called Inuit Nunangat.

One measure that can help set the context regarding life in Inuit Nunangat is the Human Development Index (HDI), which seeks to establish benchmarks regarding quality of life using health, educational, and income indicators. In a Centre for the Study of Living Standards (CSLS) report that estimated HDI values for the Canadian territories and provinces, Ugucioni (2016) found that Nunavut (the largest and most populous region of Inuit Nunangat) would rank 46th among 188 countries in 2014 in terms of aggregated HDI scores if it were considered an independent country. This compares to 9th for Canada as a whole in 2014. Clearly, Nunavut's rank is quite bleak relative to Canada's. This result is driven by poor performance in life expectancy and expected years of schooling. In particular, although Nunavut is 13th in the world in terms of gross national income (GNI) per capita, it is 103rd in life expectancy and 107th in expected years of schooling.²

¹ This report was written by Nico Palesch under the supervision of Andrew Sharpe. The CSLS would like to thank the Inuit Tapiriit Kanatami (ITK) for their financial support. The author would like to thank Jasmin Thomas and Bert Waslander for assistance and comments. The CSLS would also like to thank Maria Wilson at ITK for her detailed comments, Solange Loiselle at the Kativik Regional Government for her statistics, and David Boisvert for his data and his comments. Email: andrew.sharpe@csls.ca.

² The Centre for the Study of Living Standards (CSLS) also generated these estimates in 2012 for the Government of Nunavut (Hazell, Gee and Sharpe, 2012). The report found that Nunavut ranked 38th among 187 countries in terms of aggregate HDI scores compared to 5th for Canada in 2011. Nunavut's rank in GNI per capita was 11th, while its ranks in life expectancy and expected years of schooling were 100th and 89th respectively.

Most studies of economic and social progress among Aboriginal Canadians break down their results into five Aboriginal identity categories, including First Nations (North American Indian), Inuk (Inuit), Métis, multiple Aboriginal identities, and Aboriginal identities not included elsewhere. These studies also often break down the First Nations (North American Indian) category into areas of residence, namely, on-reserve and off-reserve. Furthermore, most research regarding Canada's Inuit population is not centered on Inuit Nunangat. It tends to look at either broad, population-wide Inuit trends that include the substantial Inuit population that has migrated to urban centres throughout southern Canada, facing different realities than those in Inuit Nunangat, or focuses solely on Nunavut, excluding approximately 40 per cent of Inuit Nunangat's population.

Therefore, this report seeks to contribute to a greater understanding of the crisis in labour market and educational outcomes among the Inuit in their homeland, namely Inuit Nunangat, by establishing a picture of economic development within the regions of Inuit Nunangat. This is done with the understanding that the social and economic outcomes of the Inuit in Inuit Nunangat are driven by the specific structural features of the different regions of Inuit Nunangat.

B. Structure of Report

In order to properly examine the economic development and employment outlook of Inuit Nunangat, this report is split into three main sections. The first section seeks to establish a baseline related to the current demographic structure, labour market outcomes and the economy of Inuit Nunangat regions, and where possible attempt to project these variables into the future. The second section will provide an in-depth look into the main economic sectors and drivers of employment within these regions, namely mining and the public sector, as well as assess potential areas of growth such as tourism, fishing, and Inuit-owned businesses. It will examine the extent to which these sectors are currently serving local Inuit communities by providing employment opportunities, and will project the potential of these sectors to provide employment opportunities for Inuit people into the future. The third section will examine the main structural barriers preventing the Inuit from participating in available employment opportunities, namely a lack of education and job skills, as well as mobility constraints caused by the lack of affordable housing capacity in most Inuit Nunangat regions. It will further investigate the high cost of living and doing business in Canada's north.

Finally, in a brief conclusion, the report will evaluate the potential of Inuit Nunangat's economy to generate employment opportunities for Inuit people in the future against the structural barriers preventing local populations from accessing those jobs, and evaluate the outlook of Inuit labour market outcomes in the future. The probability of growth in several sectors will be considered, which in some cases, like mining, is very difficult to predict due to the uncertainty of commodity prices. Several broad recommendations will be made as to how policymakers, both in local Inuit as well as federal and provincial governments, may improve the outlook for Inuit living in Inuit Nunangat and enable them to achieve better labour market outcomes.

Section II: Demographic and Economic Profile of Inuit Nunangat

A. Demographic Profile

i. Distribution of the Inuit in Canada

Inuit Nunangat is comprised of four Inuit-majority areas in Canada, and is home to nearly three quarters of Canada's Inuit population. Table 1 shows the distribution of the Inuit in Canada.

Table 1: Inuit Population in Canada, 2006 and 2011

Location	2006	2006 Proportion of Inuit Nunangat	2011	2011 Proportion of Inuit Nunangat
Canada	50,480	100.0	59,545	100.0
Inuit Nunangat	39,480	78.2	43,715	73.4
Outside Inuit Nunangat	11,000	21.8	15,830	26.6
Inuit Nunangat	39,480	100.0	43,715	100.0
Inuvialuit region	3,115	7.9	3,475	7.9
Nunavik	9,565	24.2	10,855	24.8
Nunavut	24,640	62.4	27,075	61.9
Nunatsiavut	2,160	5.5	2,310	5.4
Outside Inuit Nunangat	11,000	100.0	15,830	100.0
Edmonton	595	5.4	1,115	7.0
Montreal	570	5.2	900	5.7
Ottawa/Gatineau	730	6.6	860	5.4
Yellowknife	640	5.8	740	4.7
St. John's	280	2.5	680	4.3
Toronto	320	2.9	640	4.0
Winnipeg	350	3.2	350	2.2
Calgary	250	2.3	240	1.5
Vancouver	210	1.9	385	2.4
Victoria	140	1.3	95	0.6
Quebec City	85	0.8	115	0.7
Saskatoon	65	0.6	85	0.5
Other	6,671	60.6	9,625	60.8

Source: Statistics Canada 2006 Census and 2011 National Household Survey, Aboriginal Population Profiles

The only Inuit-majority public jurisdiction, Nunavut, is home to approximately half of Canada's Inuit, and in 2011 represented three fifths of Inuit Nunangat's Inuit population. Nunavik, an area in the north of Quebec, was home to one quarter of the Inuit in Inuit Nunangat. The Inuvialuit region, in the north of the Northwest Territories, and Nunatsiavut, in the north of Labrador, are smaller regions, respectively accounting for 7.9 and 5.4 per cent of Inuit Nunangat's Inuit population. The Inuit outside of Inuit Nunangat, accounting for just over one quarter of the total Inuit population, are spread out across southern Canada, mostly in urban

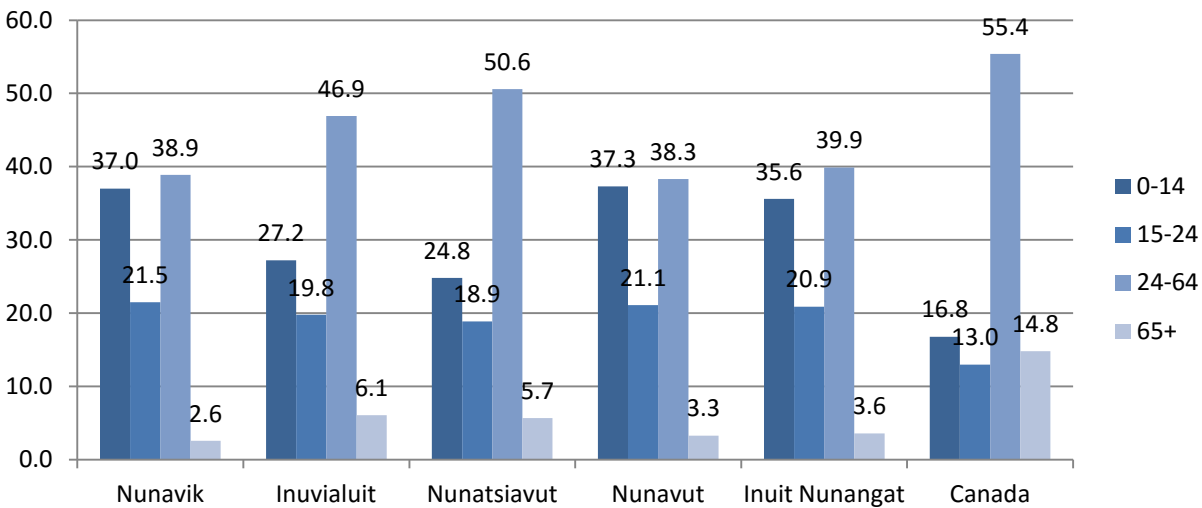
areas. Inuit Nunangat accounts for approximately 40 per cent of Canada's land mass and 50 per cent of Canada's coastlines. A map of Inuit Nunangat can be found in the appendix.

Appendix Table 1 shows a more detailed community breakdown of the Inuit population within the four regions that make up Inuit Nunangat.

ii. Current Demographic Structure of Inuit Nunangat

Chart 1 shows the age structure of the Aboriginal identity population by Inuit Nunangat region which is comprised almost exclusively of Inuit (see Appendix Table 1). The age profile of the Aboriginal population in these areas is very young, and unlike other areas of Canada, does not have a large share of the population above the typical retirement age of 65 years. In 2011, Inuit Nunangat had a share of people 65 and over that was approximately one fourth that of the Canadian population as a whole (3.6 per cent versus 14.8 per cent), while having approximately double the share of people under the age of 15 (35.6 per cent versus 16.8 per cent).

Chart 1: Age Distribution of Aboriginal Identity Population, Inuit Nunangat by Region, 2011, Per Cent



Source: Statistics Canada 2011 National Household Survey, Aboriginal Population Profile

As can be seen, the age profile of Inuit Nunangat closely resembles that of its two largest regions, Nunavut and Nunavik, which together account for 86.7 per cent of Inuit Nunangat's population. In both regions, approximately 37 per cent of Aboriginal Identity people are less than 15 years old, approximately 20 per cent are 15 to 24, approximately 38-39 per cent are aged 24 to 64 and a negligible 3 per cent aged 65 and above. Inuvialuit region and Nunatsiavut, the two smaller regions of Inuit Nunangat both have somewhat older populations, with lower proportions of people under the age of 15, higher proportions of people aged 24-64 and somewhat higher proportions of people at or above the age of 65.

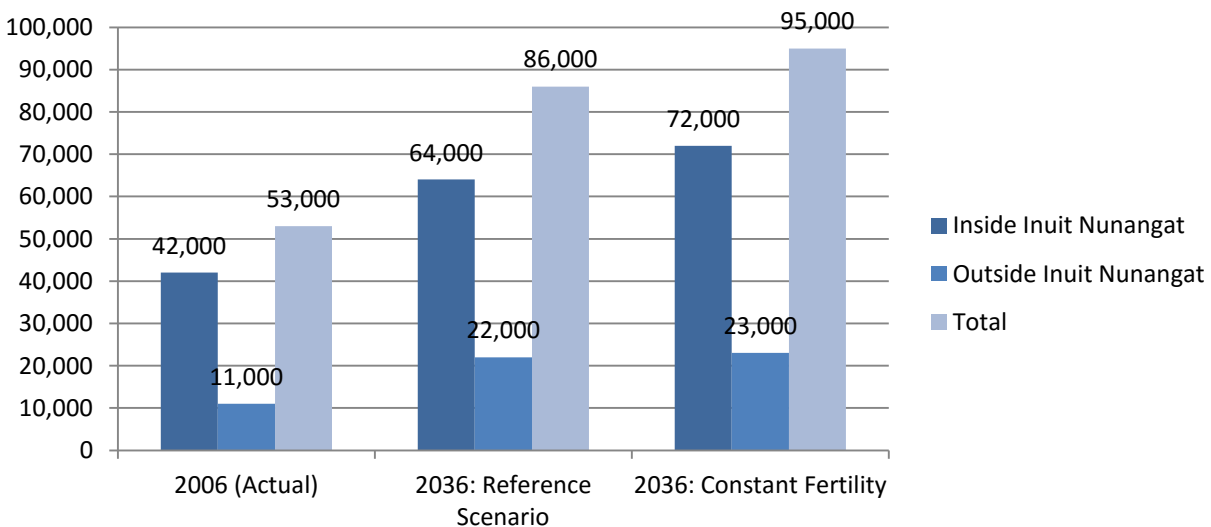
iii. Demographic Projections

Driven largely by the above-average total fertility rate of Inuit women, which in 2011 in Nunavut was 3.22 children per woman over her lifetime, almost double the 1.66 children per woman of Canadian women at large (Impact Economics, 2013), the Inuit population in Canada is

set to increase significantly over the next few decades. Morency et al. (2015) estimated the likely population growth of Aboriginal groups within Canada, including the Inuit. For the Inuit, intragenerational ethnic mobility³ is not a significant factor in determining population growth, as it is not a common phenomenon among the Inuit. Hence, assumptions about fertility rates and internal migration are the most important in the Morency et al. (2015) population growth projections.

Three scenarios were generated (Chart 2) by Morency et al.: the reference scenario (100 per cent convergence of the fertility rate in 2026, constant intragenerational ethnic mobility, and internal migration based on the 2001 and 2006 censuses and the 2011 NHS), moderate convergence of fertility (fertility rate converges by 50 per cent in 2036, intragenerational ethnic mobility is constant, and internal migration is based on the 2001 and 2006 censuses and the 2011 NHS), and constant fertility (fertility rate is constant, intragenerational ethnic mobility is constant, and internal migration is based on the 2001 and 2006 censuses and the 2011 NHS). Morency et al. estimate that the Inuit population in Canada will grow to between 86,000 in 2036 under the reference scenario and 95,000 under the constant fertility scenario, of which 64,000-72,000 will be living in Inuit Nunangat. Unlike the 3.1 per cent average annual increase in the Inuit population between 2001 and 2011, population growth will lie between 1.2 per cent under the reference scenario and 1.7 per cent under the constant fertility scenario.

Chart 2: Inuit Population Projections, Canada, 2006 and 2036



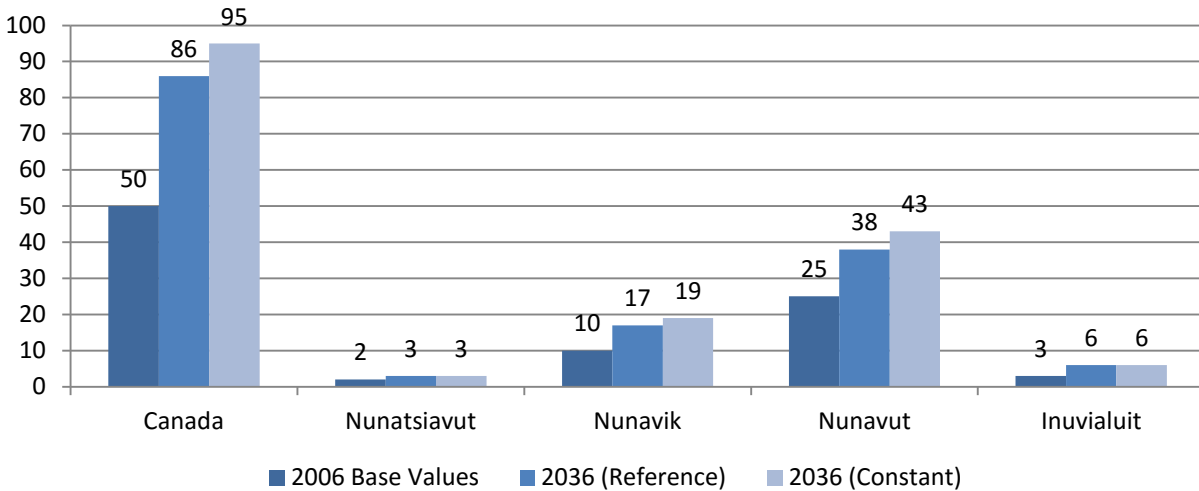
Source: Morency et al., 2015

Under the scenarios presented by Morency et al., 22,000-23,000 Inuit will be living outside of Inuit Nunangat by 2036. This number is much higher than the 11,000 in 2006 and higher than the estimated 15,830 in 2011 (Table 1).

Chart 3 shows the breakdown of the projected population growth in each of the four Inuit Nunangat regions.

³ This refers to the phenomenon of individuals and families changing the ethnic affiliation that they report. See <http://www.statcan.gc.ca/pub/91-552-x/2015001/glos-eng.htm>.

Chart 3: Inuit Population Projections, Breakdown by Inuit Nunangat Region, Thousands, 2006 and 2036



Source: Morency et al., 2015

The Inuit population in Nunavut is expected to increase by 10,000-16,000 by 2036, which at the lower end is in line with the population projections published by the Nunavut Bureau of Statistics (Nunavut Bureau of Statistics, 2014). There is very little, if any, population growth projected for Nunatsiavut, while Inuvialuit region is projected to see an increase of about 2,000-3,000 and Nunavik is projected to see an increase of 6,000-8,000.

In the Morency et al. (2015) projections, all scenarios show a slight aging of the Inuit population, although the Inuit population continues to remain extremely young. In particular, the proportion of Inuit under the age of 15 is projected to decrease from 34.1 per cent in 2006 to between 21.2 per cent in the reference scenario and 27.7 per cent in the constant fertility scenario by 2036. On the other hand, the proportion of Inuit aged 65 and older is projected to increase from 3.7 per cent in 2006 to between 9.5 per cent and 10.5 per cent in 2036.

iv. Demographic Implications

There are two main implications to the demographic trends described above. The first relates to the large number of young Inuit currently under the age of 15 years, which in the most populous regions of Inuit Nunangat (Nunavut and Nunavik) is close to the size of the population aged 24-64. The ageing, and subsequent entry of this generation of Inuit into the labour market, will require substantial economic growth in order to generate the employment opportunities necessary to ensure stable and prosperous individual and community life. Even assuming population growth rates fall toward the Canadian rates, there will need to be significant investments in infrastructure, for example in housing and transportation, to keep up with population growth and to prevent a deterioration of public services.

The second implication of the projected demographic developments stems from the doubling of the proportion of Inuit aged 65 years and above. There will need to be significant investment in health care and social assistance-related infrastructure appropriate for the current and future demographic structure of Inuit Nunangat.

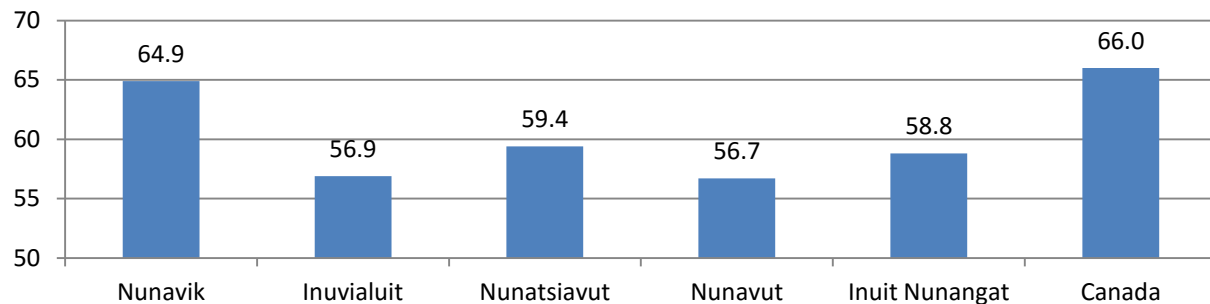
B. Labour Market Indicators

i. Labour Force Statistics by Inuit Nunangat Region

Labour market outcomes for Aboriginal Canadians tend to be worse than for the Canadian population as a whole (Calver, 2015 and National Aboriginal Economic Development Board, 2015), and the situation in Inuit Nunangat is no exception. In examining labour market outcomes, this section reviews the labour force participation rate, the employment rate, and the unemployment rate. The labour force participation rate measures the number of people working or currently searching for work (the labour force) as a proportion of the population at or above the age of 15 years. The employment rate measures the number of people working as a proportion of the population at or above the age of 15 years, and the unemployment rate measures the number of people unemployed as a proportion of the labour force.

Chart 4 shows the labour force participation rate among the Inuit population in the four regions of Inuit Nunangat as well as in Inuit Nunangat as a whole, all of which have lower participation than that of the Canadian population.

Chart 4: Labour Force Participation Rate of Inuit and Canadian Population as a Whole, Inuit Nunangat by Region, Canada, Per Cent, 2011

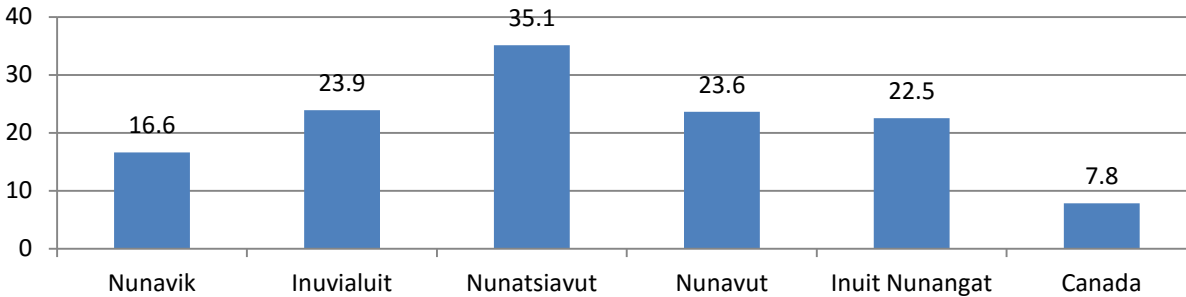


Source: Statistics Canada, 2011 National Household Survey, Statistics Canada Catalogue no. 99-012-X2011045

According to the National Household Survey, Canada achieved a labour force participation rate of 66.0 per cent in 2011. The only Inuit region to achieve a similar participation rate was Nunavik, which had a slightly lower value of 64.9 per cent. The Inuit populations in Inuvialuit region, Nunatsiavut, and Nunavut all had somewhat lower participation rates (56.9 per cent, 59.4 per cent, and 56.7 per cent respectively) than Canada. Inuit Nunangat as a whole had a labour force participation rate of 58.8 per cent, which is noticeably pulled down due to Nunavut's low rate, since Nunavut is the single largest component of Inuit Nunangat.

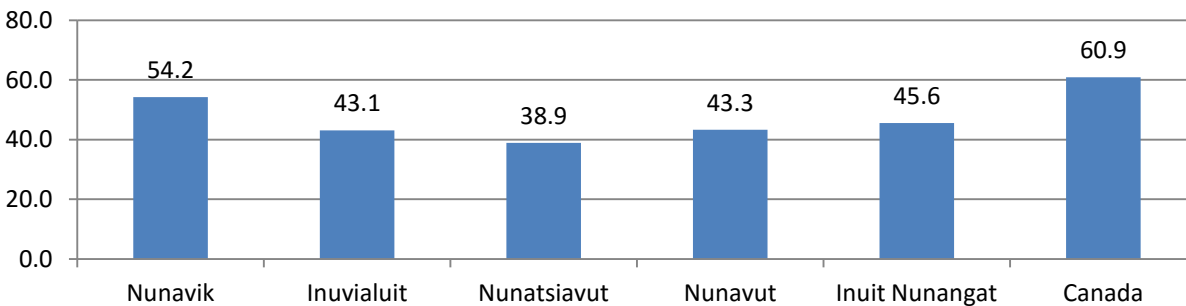
Chart 5 compares the unemployment of the Inuit populations in the Inuit Nunangat regions to that of the Canadian population. Canada's unemployment rate in 2011 (7.8 per cent) was far lower than that of the Inuit population in any of the examined regions. The highest unemployment rate is to be found in Nunatsiavut at 35.1 per cent, followed by Inuvialuit region and Nunavut at 23.9 per cent and 23.6 per cent respectively. The lowest unemployment rate in Inuit Nunangat is found in Nunavik, at 16.6 per cent, which is still 8.8 percentage points higher than the value for that of Canada's population. Inuit Nunangat as a whole had an unemployment rate of 22.5 per cent.

Chart 5: Unemployment Rate of Inuit and Canadian Population as a Whole, Inuit Nunangat by Region, Canada, Per Cent, 2011



Source: Statistics Canada, 2011 National Household Survey, Statistics Canada Catalogue no. 99-012-X2011045

Chart 6: Employment Rate of Inuit and Canadian Population as a Whole, Inuit Nunangat by Region, Canada, Per Cent, 2011



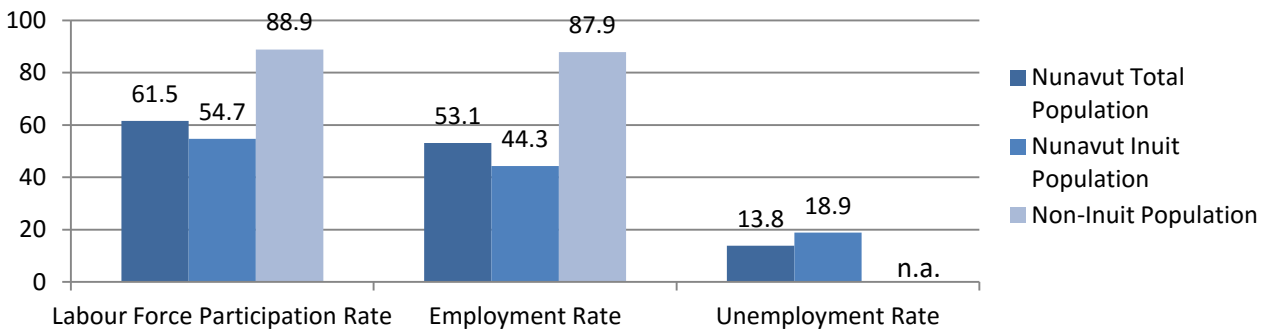
Source: Statistics Canada, 2011 National Household Survey, Statistics Canada Catalogue no. 99-012-X2011045

Chart 6 compares the employment of the Inuit populations in the Inuit Nunangat regions to that of the Canadian population. The employment rates among Aboriginal identity people in the Inuit Nunangat are somewhat of an inverse to the unemployment rates. Nunatsiavut has the lowest employment rate at 38.9 per cent (as well as the highest unemployment rate), followed by Nunavut at 43.3 per cent and Inuvialuit region at 43.1 per cent. Nunavik has the highest employment rate amongst the four regions 54.2 per cent, which is closest to the employment rate of the Canadian population as a whole, 60.9 per cent. This employment rate, coupled with Nunavik's low unemployment rate and high labour force participation rate, shows that of all four regions, Nunavik has by far the best labour market performance and is closest to the Canadian labour market outcomes.

There are a number of limitations to the use of Census or the NHS data of which the reader should be aware. First, labour force data collected in these surveys is representative of a specific point in time (the first week of May), and can include seasonal effects. These are particularly relevant to Inuit Nunangat, where many areas of employment, such as fishing or tourism, are not active at certain points in the year. Second, while the 1996, 2001 and 2006 Aboriginal Population Profiles stem from mandatory censuses, the 2011 data was collected via the voluntary National Household Survey, which may create important comparability concerns.

The above figures for labour force participation, employment and unemployment were derived using Statistics Canada's National Household Survey Aboriginal Population Profile, for which the latest data available are for 2011. This is because the Labour Force Survey cannot provide meaningful estimates for the Inuit in regions where they have small populations, which is the case for every Inuit Nunangat region other than Nunavut. The small sample sizes reduce the quality of data regarding Inuit labour market outcomes in these areas. This means that most labour market statistics are unrepresentative of the Inuit living in those areas, as they include figures for non-Aboriginal Canadians living in the region who tend to have far better labour market outcomes. This is especially true of non-Aboriginal Canadians living within Inuit Nunangat, due to the fact that they are a highly atypical group that is largely composed of prime-age workers who have moved to Inuit Nunangat in order to work in its public service or private sector. This is demonstrated by Nunavut's Bureau of Statistics Inuit labour force data (Chart 7).

Chart 7: Labour Market Indicators, Nunavut Total and Nunavut Inuit Populations, Per Cent, 2014



Note: Data on the unemployment rate for Non-Inuit in Nunavut are not collected, as this is a tiny number of people that is not subject to statistical analysis.

Source: Nunavut Bureau of Statistics, Annual Labour Force StatsUpdate, 2014

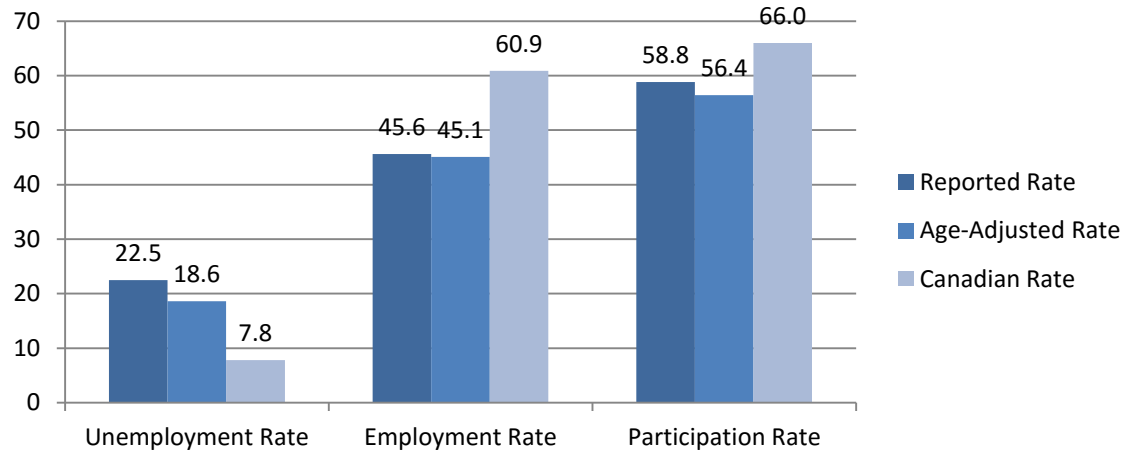
As can be seen, aggregate labour force statistics in Nunavut do not lend themselves well to the analysis of the specific situation amongst the Inuit in Inuit Nunangat or even Nunavut. Even in heavily Inuit areas, such as Nunavut, the inclusion of non-Inuit people leads to a significant increase in the labour force participation rate (6.8 percentage points) and the employment rate (8.8 percentage points), and a significant decrease in the unemployment rate (5.1 percentage points). Although the 2011 Aboriginal Population Profile is now a few years out of date, its narrow focus on the Aboriginal identity population in the examined regions, which in the case of this report are regions populated mostly by Inuit people, nevertheless provides for better Inuit-specific data.

It should also be noted that figures for aggregate labour force participation are not directly comparable between Inuit Nunangat regions and Canada because of differences in the age composition of the populations. Canada has a far higher proportion of people at or over the age of 65 years, an age group in which people are far less likely to work, than does any area of Inuit Nunangat. To make them comparable, it is necessary to undertake an age adjustment.

In order to calculate comparable age-adjusted labour force statistics for Inuit Nunangat and Canada, we need to take the labour force participation rates for people in Inuit Nunangat

broken down by age categories and apply these to the corresponding Canadian age categories.⁴ The resulting rate represents the unemployment, employment and labour force participation rates of Inuit Nunangat if it were to have the same age profile as Canada, which allows for a more direct comparison. Chart 8 shows adjusted employment, unemployment and labour force participation rates for Inuit Nunangat.

Chart 8: Adjusted and Reported Labour Force Statistics, Aboriginal Identity Population, Inuit Nunangat, 2011



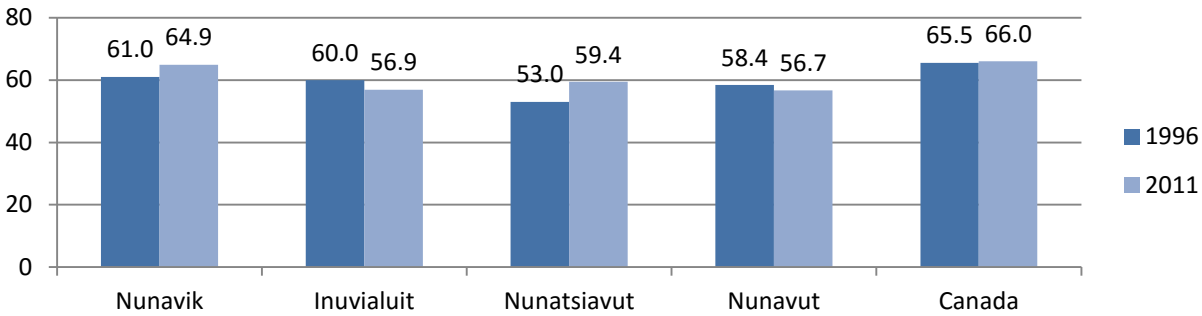
Source: Statistics Canada 2011 National Household Survey

As can be seen, adjusting the reported rates by age to make them comparable to Canada does not significantly change the outcomes in employment and labour force participation and it improves the unemployment rate by nearly four percentage points.

ii. Labour Market Indicators, Long-term Trends, 1996-2011

Using Inuit-specific labour force data provided by Statistics Canada for an ITK (2014) report on childcare, we can show that there has been very little change in labour market outcomes since 1996. The report provided the employment and labour force participation rates for the Inuit populations of Nunavik, Nunatsiavut and Inuvialuit region as well as the three regions of Nunavut (Qikiqtaaluk, Kivalliq, Kitikmeot), which for the sake of clarity have been aggregated into estimates for the territory of Nunavut as a whole in Chart 9 and Chart 10 by using population shares from 2011.

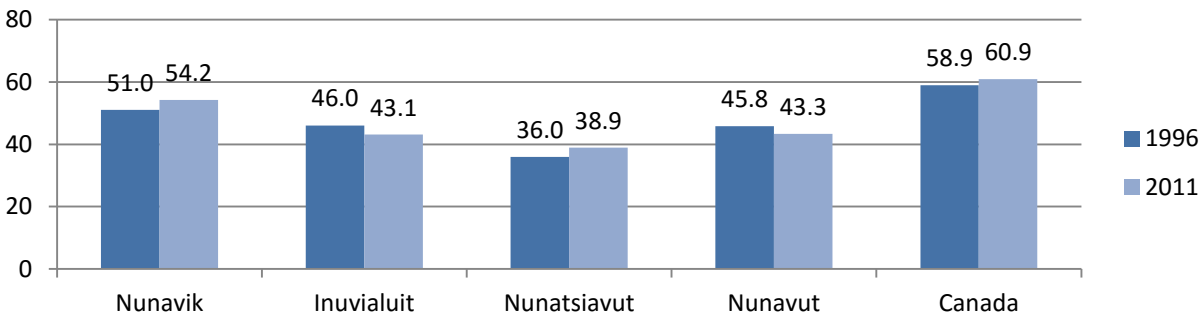
⁴ For the age adjustment, we used seven age categories for those aged 15 years and over (15-24, 25-34, 35-44, 45-54, 55-64, 65-74, and 75 and over). In Canada, the share of the population aged 15 and over in each of the age categories is as follows: 16 per cent in 15-24, 16 per cent in 25-34, 16 per cent in 35-44, 19 per cent in 45-54, 16 per cent in 55-64, 10 per cent in 65-74, and 7 per cent in 75 and over. For the Inuit, the corresponding shares at 32 per cent, 22 per cent, 18 per cent, 14 per cent, 8 per cent, 4 per cent, and 1 per cent.

Chart 9: Labour Force Participation Rate, Inuit Population, Inuit Nunangat by Region, Canada, 1996 and 2011, Per Cent

Source: Inuit Tapiriit Kanatami, 2014; Statistics Canada, 2011 National Household Survey, Statistics Canada Catalogue no. 99-012-X2011045

Although labour force participation increased substantially between 1996 and 2011 in Nunatsiavut (6.4 percentage points) and in Nunavik (3.9 percentage points), Inuvialuit region saw a decline of 3.1 percentage points and Nunavut saw a decline of 1.7 percentage points. Only Nunavik came close to converging with Canada's labour force participation rate of 66 per cent, while all other regions of Inuit Nunangat remained far from that value.

A similar story can be told regarding Inuit Nunangat's employment rates. Nunatsiavut and Nunavik each posted about a 3 percentage point increase in their employment rates, while Inuvialuit region and Nunavut saw declines of about 3 percentage points.

Chart 10: Employment Rate, Inuit Population, Inuit Nunangat by Region, Canada, 1996 and 2011, Per Cent

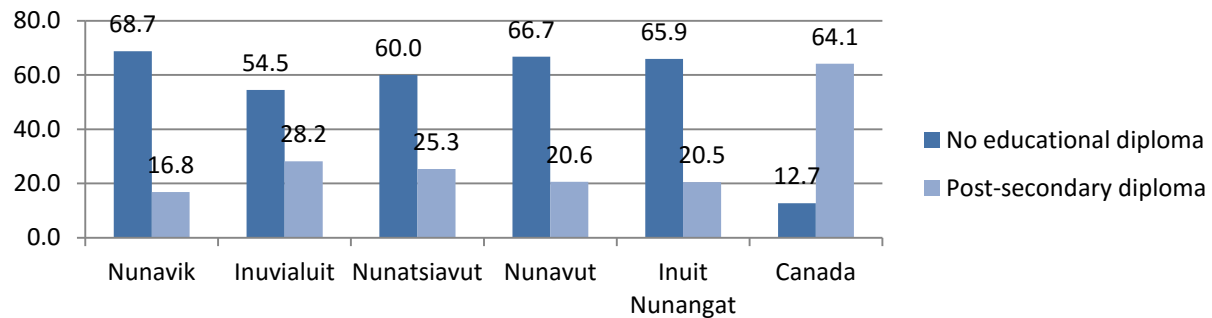
Source: Inuit Tapiriit Kanatami, 2014; Statistics Canada, 2011 National Household Survey, Statistics Canada Catalogue no. 99-012-X2011045

Broadly speaking, we can assess that the labour market outcomes in Inuit Nunangat have not improved significantly since 1996. Nunavik and Nunatsiavut are the only regions to see increases in both labour force participation and employment rates, but we must acknowledge that these increases have been modest, and in the case of Nunatsiavut, come from a very low base. Nunavut, the Inuit Nunangat region with the largest proportion of Inuit, has seen a distinct deterioration of its position, with labour force participation decreasing while at the same time employment rates have fallen. If the goal is for labour market outcomes in Inuit Nunangat to converge with Canada's over the long-term, one can say that the past decade and a half have not been very conducive to this goal. Given the demographic trends described in Section A, these challenges will grow only more acute as thousands of young Inuit enter the labour market in the coming decades.

iii. Educational Achievement

The educational outcomes of Inuit Canadians are very different from those of the Canadian population as a whole. Whereas the Canadian population as a whole is leading the world in terms of the proportion of its adult population aged 25-64 years with a tertiary education (OECD, 2015), a large proportion of the Inuit population in Inuit Nunangat is lacking any sort of formal educational credentials (Chart 11).

Chart 11: Highest level of educational achievement, Aboriginal Identity Individuals and Canadian Population (15+) as a Whole, Inuit Nunangat by Region, Canada, Per Cent, 2011



Source: Statistics Canada 2011 National Household Survey Aboriginal Population Profile

The proportion of people 15 years and over in Inuit Nunangat with no educational diploma (65.9 per cent) is almost six times higher than the corresponding proportion in Canada (12.7 per cent). Every region of Inuit Nunangat is dominated by those who have no educational qualifications, and even Inuvialuit region, the region with the lowest proportion without any qualifications, has a majority of Aboriginal Identity people (54.5 per cent) who have no educational qualifications. Nunavik has a staggering 68.7 per cent of people without an educational diploma, representing nearly 7 in 10 people in the region, which is only slightly higher than Nunavut's 66.7 per cent. In terms of post-secondary qualifications, Inuit Nunangat falls far behind Canada, as only 20.5 per cent have attained this level of education compared to 64.1 per cent. The region with the lowest proportion of post-secondary credentialed people is Nunavik (16.8 per cent) while the highest is Inuvialuit region (28.2 per cent).

It is interesting to note that Nunavik, the region with the highest proportion of those without an educational diploma and the lowest proportion of those with a postsecondary degree, is also the region with the best labour market outcomes. This appears inconsistent with the traditional understanding that a low degree of educational attainment is one of, if not the largest barrier to successful Inuit and Aboriginal participation in labour markets. Thomas (2016) provides a comprehensive analysis of this paradox.

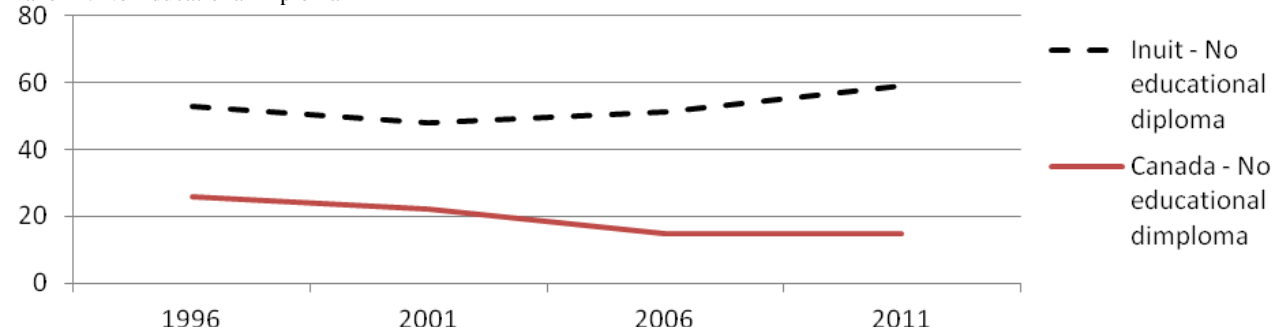
iv. Trends in Educational Attainment, 1996-2011

Chart 12 shows the proportion of Inuit in Canada with different levels of educational achievement since 1996. As can be seen, the proportion of Inuit with no educational diploma has, after a small decrease from 1996 to 2001, increased to nearly 60 per cent in 2011, while the proportion of Inuit with a post-secondary diploma has decreased. These trends are quite alarming, as the skills gained via education and the credentials gained from the completion of

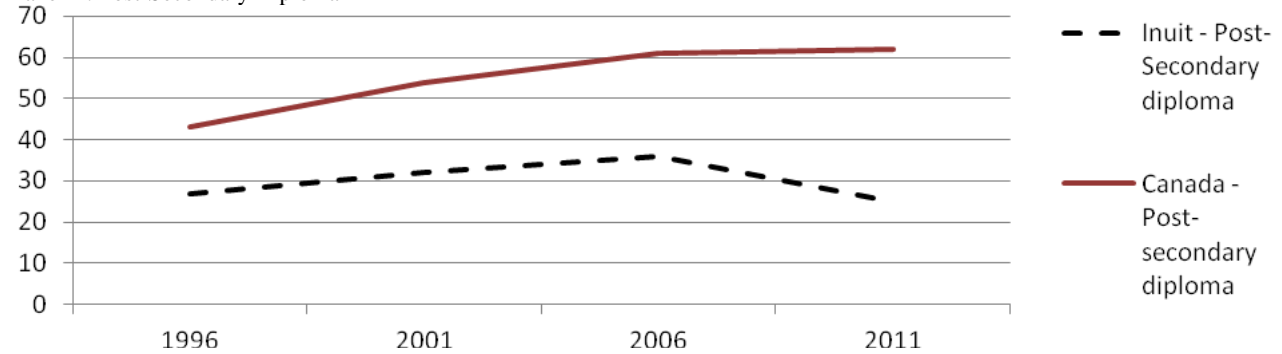
high school or post-secondary education are essential to accessing the benefits of a growing economy in the form of increasing one's job prospects. Inuit educational attainment trends also stand in stark contrast to the trends experienced in Canada during the same time period, where the proportion of people with no educational diploma has dropped sharply since 1996 and the number of people with a post-secondary diploma has increased to over 60 per cent.⁵

Chart 12: Highest level of educational achievement, Inuit and Canadian Population (15+), Canada, Per Cent, 1996-2011

Panel A: No Educational Diploma



Panel B: Post-Secondary Diploma



Source: Gordon (2014) based on Statistics Canada 1996, 2001 and 2005 Censuses and 2011 National Household Survey

C. Economic Profile

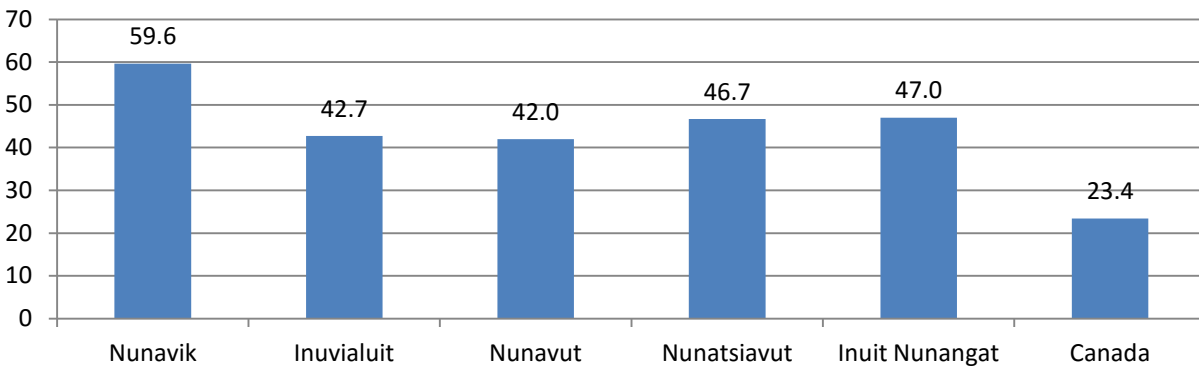
i. Employment by Sector

The nature of Inuit Nunangat, spread throughout four separate jurisdictions, means that there are no official estimates of GDP for any region except Nunavut, which is a Canadian territory. While Nunavut's past and future GDP performance will be evaluated later in this report, employment will be used to determine the relative importance of the different economic sectors of each of Inuit Nunangat's regions. Table 2 shows the 'experienced' Aboriginal labour force broken down by industry in each of the four Inuit Nunangat regions in 2011, as well as the share of each sector's experienced labour force in the overall labour force. The term 'experienced' refers to those who, in the week of May 1st to May 7th 2011, were either employed in the sector or unemployed and had worked in the sector in 2011 or 2010.

⁵ It should be noted that between 2001 and 2006 census questions regarding educational attainment were changed in order to prevent underestimation of the proportion of people with a high school diploma (see <http://www12.statcan.gc.ca/census-recensement/2006/ref/info/education-eng.cfm>).

Public administration, health care and social assistance and educational services are major sectors in each of Inuit Nunangat's regions, representing at least half of the labour force in each region, compared to only about one quarter for Canada (Chart 13). Other industries vary in size and importance depending on the particular Inuit Nunangat region in consideration. For example, agriculture, forestry fishing and hunting represents a mere 0.2 per cent of Nunavik's labour force, while in Nunatsiavut it represents 3.3 per cent. Construction similarly exhibits great variation, with 1.7 per cent of Nunavik's labour force in that field, 7.5 per cent and 7.8 per cent in Nunatsiavut and Nunavut, and a remarkable 13.0 per cent in Inuvialuit region.

Chart 13: Share of Labour Force in Public Administration, Education and Health Care and Social Assistance in Inuit Nunangat and Canada, 2011



However, these employment estimates, particularly in regards to sectors that involve traditional activities, such as fishing, hunting and the arts, are very likely underestimated due to the prevalence of informal economic activity. Many Inuit are skilled fishers and hunters, providing for themselves and for their communities. This is often called country food.⁶ In theory, Statistics Canada imputes income for own account hunting, but we are not sure if the estimates are accurate and we believe that it is quite possible that the value is underestimated. Further research on the economic impact and benefits of this informal economy would help clarify the economic situation in Inuit Nunangat, helping capture, for example, how provision of food via hunting and fishing helps people avoid high food costs, allows for subsistence through traditional means, and perhaps leads to the underestimation of employment and output in the fishing and hunting sectors.

⁶ Country food refers to the traditional diet of Inuit peoples and includes foods such as arctic char, seal meat, whale and caribou that are hunted or harvested in the north as opposed to being imported.

Table 2: Aboriginal Labour Force by Industry, Inuit Nunangat Regions, 2011

Industry	Nunavik		Inuvialuit Region		Nunavut		Nunatsiavut		Inuit Nunangat		Canada
	Total	%	Total	%	Total	%	Total	%	Total	%	%
Total 'experienced' labour force (15+)	4,445	100.0	1,885	100.0	9,910	100.0	1,070	100.0	17,310	100.0	100.0
Industry not applicable	255	5.7	110	5.8	685	6.9	70	6.5	1,120	6.5	n.a.
Agriculture, forestry, fishing and hunting	10	0.2	30	1.6	75	0.8	35	3.3	150	0.9	4.2
Mining, quarrying and oil and gas extraction	125	2.8	20	1.1	360	3.6	40	3.7	545	3.1	1.7
Utilities	95	2.1	35	1.9	190	1.9	20	1.9	340	2.0	0.7
Construction	75	1.7	245	13.0	770	7.8	80	7.5	1,170	6.8	7.8
Manufacturing	20	0.4	0	0.0	105	1.1	30	2.8	155	0.9	9.4
Wholesale Trade	30	0.7	35	1.9	80	0.8	10	0.9	155	0.9	3.4
Retail trade	410	9.2	160	8.5	1,235	12.5	100	9.3	1,905	11.0	11.6
Transportation and warehousing	235	5.3	115	6.1	555	5.6	40	3.7	945	5.5	4.9
Information and cultural Industries	60	1.3	15	0.8	125	1.3	10	0.9	210	1.2	11.8
Real estate and rental and leasing	80	1.8	50	2.7	355	3.6	10	0.9	495	2.9	1.6
Professional, scientific and technical services	30	0.7	40	2.1	100	1.0	20	1.9	190	1.1	7.2
Administrative and support, waste management and remediation services	65	1.5	50	2.7	235	2.4	10	0.9	360	2.1	n.a.
Educational Services	580	13.0	120	6.4	785	7.9	75	7.0	1,560	9.0	6.7
Health care and social assistance	1,035	23.3	195	10.3	725	7.3	115	10.7	2,070	12.0	11.8
Arts, entertainment and recreation	90	2.0	45	2.4	205	2.1	10	0.9	350	2.0	n.a.
Accommodation and food services	115	2.6	55	2.9	390	3.9	60	5.6	620	3.6	6.7
Other services (except public administration)	85	1.9	70	3.7	235	2.4	30	2.8	420	2.4	4.3
Public Administration	1,035	23.3	490	26.0	2,660	26.8	310	29.0	4,495	26.0	4.9

Note: Due to negligible Aboriginal employment in the finance and insurance as well as the management of companies and enterprises sectors across Inuit Nunangat these sectors were not included. These sectors accounted for 7.8 per cent of Canadian GDP in 2015.

Source: Statistics Canada, 2011 National Household Survey, Aboriginal Population Profile

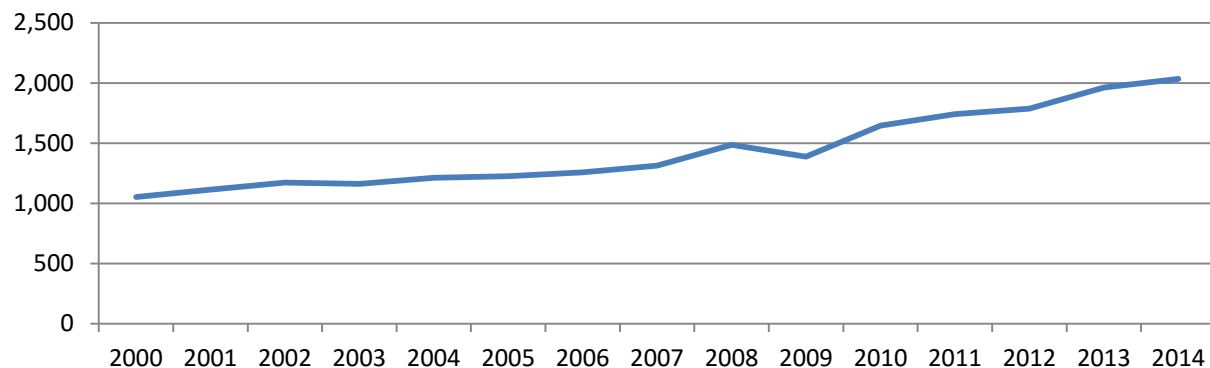
ii. GDP Trends

Of all the regions in Inuit Nunangat, Nunavut is the only one for which it is possible to comprehensively track the development of GDP through data provided by Statistics Canada. This is due to the fact that official GDP data are released on a provincial and territorial basis, where the values for Inuit Nunangat are not easily separable from the other regions of their respective provinces or territories. For example, separating southern Quebec's GDP from Nunavik's GDP would be a major statistical undertaking. Hence, Nunavut is the only Inuit Nunangat region for which Statistics Canada GDP data can be linked to an Inuit Nunangat region without statistical challenges.

Nunavut has seen steady economic growth since 2000, with real GDP almost doubling from \$1.053 billion in 2000 to \$2.033 in 2014 (Chart 14). This represents an increase of 93.1 per cent over 14 years or an annual average growth rate of 4.8 per cent. This is the highest compound average annual growth rate among Canada's territories and provinces over this time period. The most significant decrease in economic output occurred in 2009 (6.5 per cent), corresponding to the global financial crisis and the accompanying recession. These losses were entirely recouped by 2010, with strong 7.9 per cent per year growth thereafter.

In terms of industry contributions, 57.7 per cent of this 7.9 per cent per year growth came from mining, quarrying, and oil and gas extraction (Table 4). Construction contributed another 16.4 per cent. The next largest contribution came from real estate and rental and leasing at only 5.7 per cent.

Chart 14: Nunavut GDP, 2007 Chained Dollars, Millions, 2000-2014



Source: Statistics Canada, CANSIM Table 379-0030

Though official Statistics Canada GDP data are not available for the other regions of Inuit Nunangat, it is still possible to estimate output for these regions using a variety of statistical techniques. Strategic Projections, an economic and demographic projections firm, undertook this task and estimated employment and GDP levels and growth rates for the CSLS. Table 3 shows the estimated levels and growth rates of employment and GDP in the four Inuit Nunangat regions.

Table 3: GDP Levels and Growth Rates, Inuit Nunangat by Region, Millions, Chained Dollars, 2006-2021

Region	2006	2011	2012	2013	2014	2021*	Compound Annual Growth Rate (%)	
							2006-2014	2014-2021*
Nunatsiavut	734	363	294	324	305	324	-10.4	0.9
Nunavik	366	403	402	415	434	504	2.1	2.2
Inuvialuit region	--	318	322	335	347	387	2.9	1.6
Nunavut	1,289	1,690	1,710	1,910	2,021	2,265	5.8	1.6
Inuit Nunangat	2,389	2,775	2,729	2,984	3,107	3,479	3.3	1.6
Canada	1,437,116	1,530,958	1,560,152	1,595,060	1,634,178	..	1.6	..

Note: Due to unavailable 2006 employment data in Inuvialuit region the compound annual growth rate is for the 2011-2014 period. A single asterisk (*) indicates a projection.

Source: Strategic Projections

As can be seen, all regions of Inuit Nunangat except for Nunatsiavut have experienced economic growth since 2006. While data for Inuvialuit region are not available for 2006, it has since 2011 posted 2.9 per cent annual growth, which sits in between the ranges of growth shown by Nunavik (2.1 per cent) and Nunavut (5.8 per cent) over the same time period. Nunatsiavut has seen steady economic contraction since 2006, with GDP in 2014 less than half its value in 2006.⁷ All Inuit Nunangat regions are projected to continue growing annually through 2021, with the fastest growth in Nunavik (2.2 per cent), followed by Inuvialuit region and Nunavut (1.6 per cent) and Nunatsiavut, which is predicted to grow the most slowly through 2021 at a 0.9 per cent annualized rate.

Table 4 shows the development of Nunavut's real GDP broken down by industry.⁸ The most important industries of Nunavut's economy, namely public administration, construction, mining, real estate, and educational services, all saw growth during the 2000-2014 time period. Of these, only construction (15.9 per cent) saw a rate of growth greater than Nunavut's overall GDP performance of 4.9 per cent. With a \$240 million increase from 2000 to 2014, construction represented approximately 29.3 per cent of Nunavut's growth.

Chart 15 shows the development of the construction industry, which saw three distinct phases of growth, namely slow and steady growth from 2000 to 2006, sharp growth from 2006 to 2008, and rapid growth post-2012 following a multi-year decline. Most construction in Nunavut is driven primarily by government spending on housing or mining construction, the latter of which is likely largely responsible for the two periods of fast growth from 2006 to 2008 and post-2012.

⁷ The main reason for the drop in GDP from 2006 to 2011 was the drop in mining employment (down more than 50 per cent) and the drop in mining productivity (down about 5 per cent). Employment and productivity declines also occurred in a few other industries but the mining declines were the biggest contributors to the halving of overall real GDP.

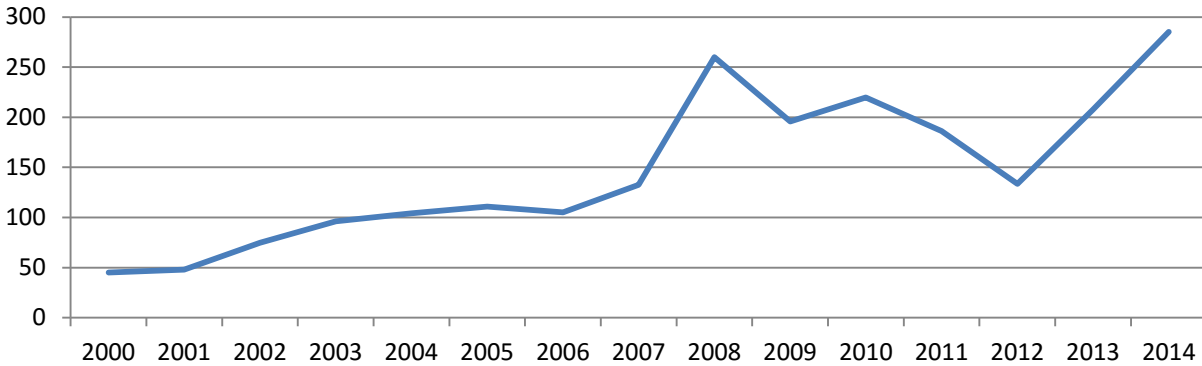
⁸ Appendix Table 2 provides a more detailed breakdown of Nunavut's GDP by industry.

Table 4: Nunavut GDP by Industry, 2007 Chained \$, Millions, 2000, 2009 and 2014

<i>Aggregates</i>	2000	2009	2014	Compound Annual Growth Rate (%)		Contribution to Growth over 2009-2014	2014 % of Nunavut GDP
				2000-2014	2009-2014		
All industries	1,053	1,389	2,033	4.8	7.9	100	100.0
Goods-producing industries	248	278	792	8.6	23.3	94.8	39.0
Service-producing industries	817	1,109	1,231	3.0	2.1	22.5	60.6
Industrial production	361	83	467	1.9	41.3	70.8	23.0
Information and communication technology sector	11	30	44	10.4	8.0	2.6	2.2
<i>Industries</i>							
Agriculture, forestry, fishing and hunting	2	4	6	8.2	8.4	0.4	0.3
Mining, quarrying, and oil and gas extraction	257	32	345	2.1	60.9	57.7	17.0
Utilities	66	46	52	-1.7	2.5	1.1	2.6
Construction	45	196	285	14.1	7.8	16.4	14.0
Manufacturing	2	1	8	10.4	51.6	1.3	0.4
Wholesale trade	15	24	36	6.5	8.4	2.2	1.8
Retail trade	49	71	73	2.9	0.6	0.4	3.6
Transportation and warehousing	65	36	44	-2.7	4.1	1.5	2.2
Information and cultural industries	15	34	46	8.3	6.2	2.2	2.3
Finance and insurance	24	33	41	3.9	4.4	1.5	2.0
Real estate and rental and leasing	140	190	221	3.3	3.1	5.7	10.9
Professional, scientific and technical services	13	30	26	5.1	-2.8	-0.7	1.3
Management of companies and enterprises		10	10		0.0	0	0.5
Administrative and support, waste management and remediation services	26	35	47	4.3	6.1	2.2	2.3
Educational services	110	145	157	2.6	1.6	2.2	7.7
Health care and social assistance	64	100	113	4.1	2.5	2.4	5.6
Arts, entertainment and recreation	4	3	2	-4.8	-7.8	-0.2	0.1
Accommodation and food services	19	22	25	2.0	2.6	0.6	1.2
Other services (except public administration)	11	22	25	6.0	2.6	0.6	1.2
Public administration	265	355	369	2.4	0.8	2.6	18.2

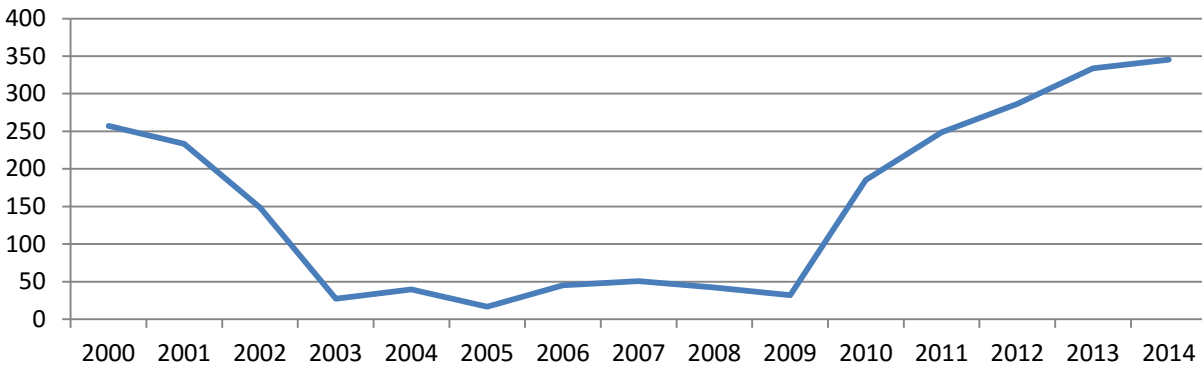
Source: Statistics Canada, CANSIM Table 379-0030

Chart 15: Construction Industry in Nunavut, 2000-2014, 2007 Chained \$, Millions



Source: Statistics Canada, CANSIM 377-0030

Chart 16: Mining Industry in Nunavut, 2000-2014, 2007 Chained \$, Millions



Source: Statistics Canada, CANSIM 377-0030

Nunavut's mining sector, though posting a 34.2 per cent increase in output between 2000 and 2014, has seen a more complicated trajectory than any other industry (Chart 16). From 2000 to 2005 output in the mining sector collapsed from \$257.3 million to \$16.8 million. This was tied to the winding down and closing of various mines during this time period, including the Lupin gold mine that closed in 2006, the Nanisivik zinc and lead mine that closed in 2002 as well as the Polaris zinc and lead mine that also closed in 2002. Since 2005 the mining industry has seen a drastic turnaround, growing to \$345.2 million in 2014. This was driven from 2006 to 2008 by the temporary operation of the Jericho diamond mine, but mostly by the opening of the Meadowbank gold mine in 2010, which single-handedly increased total mining output in Nunavut from \$31.8 million in 2009 to \$185.4 million in 2010.

Public administration, real estate and rental and leasing, health care and social assistance and educational services also saw strong growth over the 2000-2014 period. These sectors, though each representing relatively smaller fractions of Nunavut's economy, accounted for \$281 million of output growth, or approximately 28.7 per cent of Nunavut's overall growth during this time.

iii. GDP Projections in Nunavut

In a recent report (Drummond and Capeluck, 2015) the Centre for the Study of Living Standards projected trends in economic growth for Canada's provinces and territories. The report uses assumptions regarding the growth rates of labour productivity and hours worked, the two components of GDP. Labour productivity is a measure of the value of output produced by one unit of labour, which when multiplied by the number of units of labour (normally hours of work) provides a measure of economic output within a given region. Table 5 briefly outlines the forecast made by the CSLS in regards to the economic performance of Nunavut up to the year 2038 for both components of GDP as well as real GDP growth.

Table 5: Growth in Hours Worked, Labour Productivity and Real GDP, Compound Average Annual Growth Rates, Nunavut and Canada, 2000-2038

Panel A: Canada

	Hours Worked	Labour Productivity	Real GDP
2000-2014	1.03	0.99	2.03
2014-2026	0.55	0.99	1.54
2026-2038	0.57	0.99	1.57

Panel B: Nunavut

	Hours Worked	Labour Productivity	Real GDP
2000-2013	3.36	0.97	4.36
2014-2026	0.84	0.97	1.81
2026-2038	0.67	0.97	1.64

Source: CSLS Report: *Long-term Economic Growth and Fiscal Projections for Canada and the Provinces and Territories, 2014-2038*

The annual real GDP growth reported in Nunavut for the 2000-2013 time period (4.4 per cent) is slightly lower than the value reported for the 2000-2014 time period (4.8 per cent) due to the use of different data sources and to different time periods.⁹ At the time of writing, Drummond and Capeluck (2015) were required to use the 2000-2013 period for the territories as opposed to 2000-2014 because GDP figures for 2014 had not yet been made available for the territories, even though they were available for Canada and the provinces. However, both data sources tell the same story of stronger annual real GDP growth in Nunavut than in any other province or territory over the 2000-2014 period. According to the CSLS forecast, Nunavut will see a decrease in real GDP growth in the coming years, with the main cause being markedly slower growth in hours worked. Growth rates for real GDP are projected to remain above those of Canada as a whole through 2038, with the gap between real GDP growth in Canada and Nunavut decreasing from 2.33 percentage points in the 2000-2014 period to 0.07 percentage points in the 2026-2038 time period.

However, it should be noted that these projections are quite uncertain, given that the CSLS report does not take into account specific sectoral analysis of smaller jurisdictions, which would be very relevant to a projection of Nunavut's future economic growth, where the development of the mining industry is key to the territory's future economic trajectory.

⁹ This report uses CANSIM 379-0030 while Drummond and Capeluck (2015) used CANSIM 384-0038.

Section III: Major Sources of Economic Development and Employment

When considering the future of Inuit Nunangat's economy one must consider both the currently established industries, looking at their contributions to employment and potential for further growth, as well as industries that currently may play a smaller role in the economy, but may in future develop so as to play a larger role in providing employment. Two important sources of current employment in Inuit Nunangat are the mining industry and the public sector, both of which are examined in terms of their current contribution to employment as well as their viability as a source for new jobs in the future. Several smaller industries, such as fishing, the arts, and tourism, as well as the provision of local goods and services by Inuit businesses, are also examined in this section.

A. Mining

Due to the Canadian North's abundance of natural resources, mining is an important industry in most of Inuit Nunangat's regions. Large mining projects provide employment opportunities, as well as providing northern regions with sources of income. Large parts of the North's natural resources, centered around gold, silver, diamonds, uranium and nickel, are currently untapped, with resource exploration and planned mining projects indicating that further growth in the mining sector could be a large source of increased employment and economic development opportunities.

However, it is important to note that the viability of mining projects in the Canadian North is highly dependent on commodity prices. If commodity prices continue to fall, it is unlikely that the resource exploration and mining projects listed in this report will actually occur. Given the extreme dependence of the Canadian North on commodity prices, it might be worth investing resources into diversifying the local economies into other industries like fishing, the arts, and tourism. These industries are less likely to see the large fluctuations in demand (and thereby employment) that are inherent in natural resources markets.

Furthermore, profits in the mining industry do not tend to stay in the geographical area where they are produced. If labour is flown in from other regions, labour earnings also flow out of the region. Despite these drawbacks to mining, it is also important to point out that there are important linkages between mining and the local economy through services and goods provision, so a strong mining sector can also be a boon to other industries. Hence, it can be argued that mining should be encouraged in Inuit Nunangat, but other industries should also be developed and the linkages between mining and the local economy should be strengthened.

i. Mines Currently in Operation

a. Nunavut

There are currently two mines in operation in Nunavut, though only one of the two is operating at full capacity. Agnico-Eagle Mines operates the Meadowbank gold mine, which is located close to Baker Lake in the Kivalliq region of Nunavut. This is the only fully operational mine in Nunavut, which produces an estimated 350,000 ounces of gold annually (Impact

Economics, 2013), the output of which was estimated to represent approximately 18 per cent of Nunavut's total GDP in 2013 (Mining Journal, 2015).

The Meadowbank gold mine began operations in 2010, and is projected to continue production until 2018, at which point Agnico-Eagle hopes to have its Medialine gold mine (currently being constructed near Rankin Inlet in Nunavut) replace the lost gold production capacity. Employment at Meadowbank has grown slightly in recent years, with 678 jobs associated with the mine reported in 2013 (Impact Economics, 2013) and 736 in 2015 (Mining Journal, 2015).

The second mine currently in operation in Nunavut is the Mary River iron mine, operated by Baffinland Iron Mines near Pond Inlet on Baffin Island. Mary River has been under construction since 2013, and began the early revenue phase of its operations in 2014. This early revenue phase represents a decrease in production relative to the original planning. Initially planning to produce approximately 18 million tonnes of iron ore per year, Baffinland Iron Mines was forced to scale back its project to approximately 3.5 million tonnes annually due to drastically falling iron ore prices (Baffinland Iron Mines, 2014).

The lifespan of Mary River is projected to be 20 years, with substantial employment opportunities being created during that lifespan at the mine and associated port. The early revenue phase has been projected to provide employment for 420 people, and at full capacity, Mary River was expected to employ 950 (Impact Economics, 2013). An expansion to full capacity would require substantial further investments. Low and falling iron prices at this time may not permit this type of additional investment.

b. Nunatsiavut

Voisey's Bay nickel mine, located approximately 35 km southwest of Nain, is the only mine currently producing in Nunatsiavut. Having begun production in 2005 and currently undergoing an underground expansion, the mine employs approximately 475 people, a number that is projected to increase to 800-900 employees upon completion of the expansion in 2019. Voisey's Bay is slated to continue production until 2035 (Antle, 2013). It is likely that the completion of this expansion is highly dependent on the path of commodity prices.

c. Nunavik

There is currently one mine operating in Nunavik, the Raglan nickel mine approximately 100 km south of Deception Bay. The mine, operated by Glencore Xstrata, has been producing nickel since 1998, and is projected to continue production until 2028, representing a 30 year life span. Employment at the Raglan nickel mine totalled on average 870 workers in 2015 (Rogers, 2013).

d. Inuvialuit region

There are currently no mining projects operating in Inuvialuit region.

e. Northwest Territories

Though not technically in Inuit Nunangat, two mines close to the Nunavut border are currently producing in the Northwest Territories, the Ekati diamond mine and the Diavik diamond mine. Dominion Diamond Corporation, which operates both diamond mines, signed impact and benefits agreements with the Nunavut-based Kugluktuk and Kitikmeot Inuit Associations to provide for benefits to local Inuit living close to these mines.

ii. Inuit Employment in Mines

All of the mines currently in operation in Inuit Nunangat have signed impact and benefit agreements (IBAs) with various Inuit stakeholders, including the territorial government of Nunavut, the Government of Nunatsiavut, as well as various regional Inuit groups such as the Kitikmeot Inuit Association. The purpose of these IBAs is to (1) guarantee community-inclusive social and environmental practices by incorporating Inuit people into the mines' labour force, (2) ensure cooperation and oversight between local community signatories and mining authorities, and (3) provide benefits to local communities. These IBAs typically consist of pledges and commitments, and are implemented via a variety of job training, royalty payment and oversight programs.

Even though all mines typically sign IBAs, there is generally no information on the precise number of Inuit hired in relation to the total workforce of the mine due to their confidential nature. Hence, it is somewhat difficult to judge the effectiveness of these programs in providing local Inuit employment and community benefits. IBAs are, however, tracked and publically listed by Natural Resources Canada,¹⁰ which provides information about signatories, the type of agreement, the date the agreement was signed, and the status of the agreement. Though IBAs are generally credited as being a positive tool for helping Inuit communities share in the benefits of mines and projects in the north, their confidential nature and inaccessibility have been cited as barriers to helping the community realize the fullest gains possible.

It is in fact quite difficult to evaluate the concrete effects of IBAs due to this lack of information. Thus, opening the process of drafting and evaluating IBAs would likely improve accountability of all stakeholders and help realize more concrete gains for Inuit communities. Furthermore, providing support to Inuit communities that may be inexperienced at drafting and negotiating IBAs during these processes may help communities gain firm commitments and maximize benefits from new projects (Knotsch and Warda, 2009).

The mine that reports the highest proportion of Inuit employees in Inuit Nunangat is the Meadowbank gold mine at 34 per cent, representing 265 workers (Mining Journal, 2015), a slight deterioration since 2011 (38 per cent or 289 workers) (George, 2011).

The Raglan nickel mine in Nunavik, which advertises itself as particularly friendly towards the training and employment of Inuit, boasts a large host of Inuit training programs, including multilingual 'transition to work' programs, an Inuit employment center, an education fund for those still in postsecondary education, as well as what is called the RIDE program

¹⁰ See <http://www.nrcan.gc.ca/mining-materials/aboriginal/14694> for more details.

designed to provide career advancement opportunities for Inuit employees. Raglan nickel mine has seen an increase in Inuit employment from 55 workers in 1998 to 169 workers in 2015 (or approximately 19.4 per cent of the total mine workforce) (Glencore, 2015). Under the IBA Raglan nickel mine also provides profit-sharing and royalty payments to the signatories, including the Makivik Corporation as well as local Inuit communities.

Voisey's Bay nickel mine does not release figures on Inuit employment, but a 2008 review of the IBA by Natural Resources Canada found that 54 per cent of the people employed in supporting operations at the mine and by associated contractors were Aboriginal (Natural Resources Canada, 2008). The exact proportion of Inuit employees cannot be deduced from this figure, given that both the Inuit Government of Nunatsiavut and the Innu Nation have signed IBAs with the mine. Voisey's Bay nickel mine has established an Inuit Employment Centre as well as a Skills Development Centre designed to attract Inuit and Innu people to work at the mine. Voisey's Bay nickel mine also provides royalty payments to the Government of Nunatsiavut (Heritage Newfoundland and Labrador, 2011).

The Ekati and Diavik diamond mines in the Northwest Territories similarly do not release figures related to Inuit employment, but Natural Resources Canada's reviews of these mines concluded that 33 per cent and 17 per cent of the mines' workforces were composed of Northern Aboriginals, respectively (Natural Resources Canada, 2008 and 2014). It is not specified further as to which Aboriginal groups were best represented in the mine's workforce and in what proportion. Given that both of these mines have signed IBAs with a variety of Aboriginal groups and are not in fact in Inuit Nunangat, Inuit employment at these mines may be limited.

Mary River iron mine does not release statistics about its workforce and there is no publicly available information as to the Inuit proportion of its workforce.

Although the use of IBAs within the mining sector may have led to greater Inuit employment in most Inuit Nunangat mines, there is still room for substantial improvement. The largest operating mines, Raglan and Meadowbank, both employ the majority of their labour from non-Inuit communities, much of which comes in the form of workers from southern Canada.

iii. Future Mining Projects

Table 6 on the following page provides a list of the current and planned mining projects in Inuit Nunangat, including those that are in the planning, development and producing stages. A mine is considered in the planning phase if there are concrete plans to build a mine, in the development phase if construction on the mine itself has begun, and in the producing phase if the mine is operational.

Table 6: Current and Future Mining Projects in Inuit Nunangat

Name of Mine	Company	Nearest Community	Commodity	Status	Lifespan of Mine	Start Date (Projected)	Number of Employees (Reported Year)	Inuit Employees (Year)
Nunavut								
Meadowbank Mine	Agnico Eagle Mines Ltd	Baker Lake	Gold	Producing	8 years	2010	693 (2014)	300 (2012)
Mary River	Baffinland Iron Mines	Pond Inlet	Iron	Producing	20+ years	2014	420 at reduced plan, 950 at full capacity	n.a.
Doris North (Hope Bay)	TMAC Resources Inc.	Cambridge Bay	Gold	Development	n.a.	2020	n.a.	n.a.
North Thelon	Forum Uranium Corporation	Baker Lake	Uranium	Development	17 years	2015	600	n.a.
Meliadine Gold Deposit	Agnico-Eagle Mines	Rankin Inlet	Gold	Development	13 years	2018	700	n.a.
Izok Corridor Project	MMG Resources	Kugluktuk	Copper, zinc, gold, silver	Planning	15 years	n.a.	1,000 (estimate)	n.a.
Back River Gold Deposit	Sabina Gold and Silver Corporation	Bathhurst Inlet	Gold	Planning	10-15 years	2019	900 (estimate)	n.a.
Kiggavik Uranium Deposit	AREVA Resources	Kiggavik	Uranium	Planning	17 years	n.a.	600 (estimate)	
Hackett River	Glencore Xstrata Plc	Bathhurst Inlet	Gold, Silver	Planning	n.a.	2018	n.a.	n.a.
Chidliak	Peregrine Diamonds Ltd	Iqaluit	Diamonds	Planning	n.a.	n.a.	n.a.	n.a.
Angliak	Kivalliq Energy Corporation	Baker Lake	Uranium	Planning	n.a.	n.a.	n.a.	n.a.
Qilalugak	North Arrow Minerals/Stornoway Diamonds	Repulse Bay	Diamonds	Planning	n.a.	n.a.	n.a.	n.a.
Nunatsiavut								
Voisey's Bay	Vale Newfoundland and Labrador Ltd	Nain	Nickel	Producing	30 years	2005	475 (2013)	n.a.
Nunavik								
Raglan Mine	Glencore-Xstrata	Deception Bay, Nunavik	Nickel	Producing	30 years	1998	870 (2015)	169 (2015)
Nunavik Nickel Mine	Canadian Royalties Inc	Deception Bay, Nunavik	Nickel	Development	n.a.	2013	377 (2015)*	32 (2015)*
Inuvialuit region								
Darnley Bay Project	Darnley Bay Resources Ltd	Paulatuk	Nickel, copper, platinum group metals, diamonds	Planning	n.a.	n.a.	n.a.	n.a.
Northwest Territories								
Ekati Diamond Mine	Dominion Diamond	Lac de Gras	Diamonds	Producing	33 years	1998	n.a.	n.a.
Diavik Diamond Mine	Dominion Diamond	Lac de Gras	Diamonds	Producing	20 years	2003	n.a.	n.a.

* These CRI figures do not include Outland or Logistec.

Note: Figures for Raglan Mine (Glencore) and the Nunavik Nickel Mine (Canadian Royalties Inc.) are calculated as averages of monthly statistics.

Source: Estimates for overall and Inuit employment taken from Impact Economics, 2013 or Mining Journal, 2015, otherwise taken from the same sources as indicated in Section 3.

As shown, there is great potential for growth in the mining sector of Inuit Nunangat, particularly in Nunavut, where the vast majority of development and exploration activities is being performed. The commodities most relevant to the future growth of mining in the north are gold, silver, uranium, nickel and diamonds, and if the projects currently in development, exploration or planning phases go through, there will be large growth in employment opportunities for both the Inuit and non-Inuit residents of Inuit Nunangat. Table 7 provides a brief summary of the distribution of current and potential mines across Inuit Nunangat, while Table 8 Table 9 breaks down those mining projects by commodity.

Table 7: Mining Projects in Inuit Nunangat by Region

	Nunavik	Inuvialuit region	Nunatsiavut	Nunavut	Inuit Nunangat
Producing	1	0	1	2	4
Development Stage	1	0	0	3	4
Planning Stage	0	1	0	7	8
Total	2	1	1	12	16

Table 8: Mining Projects in Inuit Nunangat by Commodity

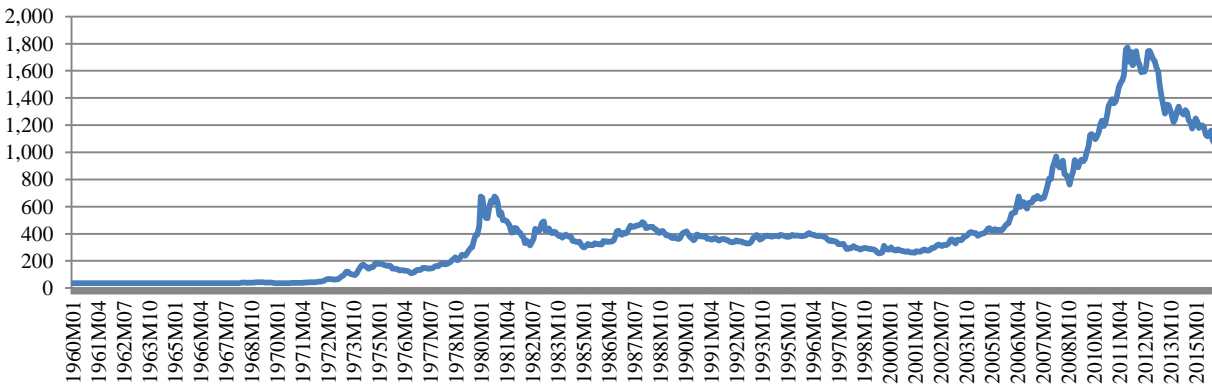
	Gold	Uranium	Diamonds	Metals (Nickel, Zinc, Copper)	Iron
Producing	1	0	0	2	1
Development Stage	2	1	0	1	0
Planning Stage	2	2	2	2	0
Total	5	3	2	5	1

iii. Volatility in the Mining Sector

On the surface, it would seem that Inuit Nunangat, particularly Nunavut, is poised for a major mining boom, with three new mines currently in development and an additional seven either in the planning or exploration phases. However, this is somewhat misleading given the nature of the mining business and the unpredictability of commodity price swings. The economic feasibility of a mining project is dependent on the costs of extraction relative to the price of the commodity on the world market. As will be shown, these prices are quite volatile, and downwards swings in prices can not only lead to the cancellation of projects that are being planned or in development, but can in extreme cases shut down operational mines entirely. Conversely, unexpected increases in commodity prices can lead to increased exploration and planning of projects and increased production in operational mines. Short term price increases and price decreases do not however have equivalent effects – it is far more difficult and time consuming to explore, plan and develop a site for mining than it is to cancel an existing or planned project or put it on hold. In the long run the number of mines and the level of activity in the mining sector are largely determined by commodity prices.

The basic trajectory of most of the significant Inuit Nunangat commodities, namely iron, nickel, gold and uranium, has in recent history been quite similar. Following a relatively stable period in the 1990s and early 2000s, commodity prices increased sharply, peaking at different times depending on the commodity, and then falling to varying degrees, again depending on the commodity. The development of the world price of gold is shown below in Chart 17.

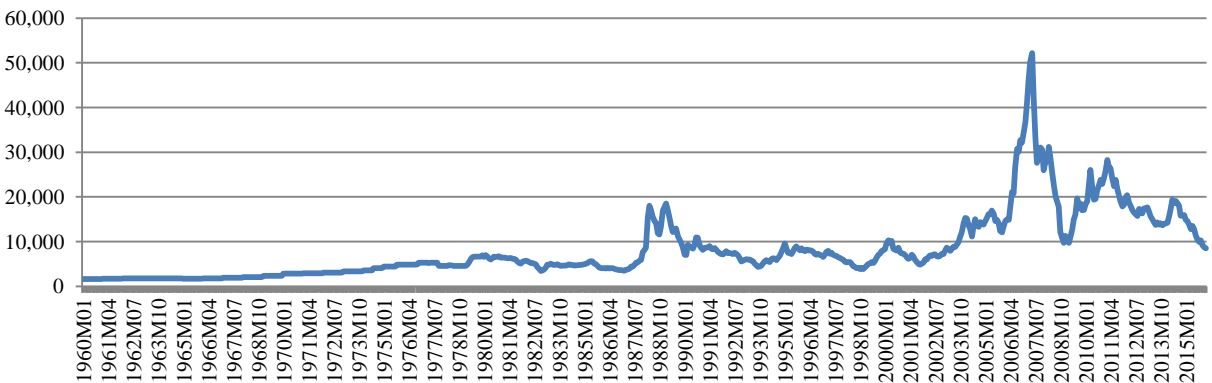
Chart 17: Nominal World Price of Gold, US\$/toz, Monthly, 1990-2016



Source: World Bank Commodity Price Data (The Pink Sheet)

As can be seen, while the price of gold has fallen from its 2011-2012 peak, its price per troy ounce is still significantly above what it was before the post-2008 era of rapid price acceleration. After a sharp drop of the price in 2013 of approximately \$500 there has been a slight downward trend, with the current price of gold hovering around \$1,200 per troy ounce. The future of the four gold mines in Inuit Nunangat currently in development, as well as the one currently producing, depend on the future development of the price of gold. It would probably take another large decrease in the price of gold, akin to the fall seen in 2013, to make mine operators seriously question the future of planned projects. Even assuming the current slight downward trend continues over the next few years, gold prices still remain well above their historical average. Fortunately, the World Bank Commodities Price Forecast from July 20, 2015 suggests that nominal gold prices will only fall by about \$200 per troy ounce by 2025 and that this downward trend will be slow and steady (World Bank, 2015b).

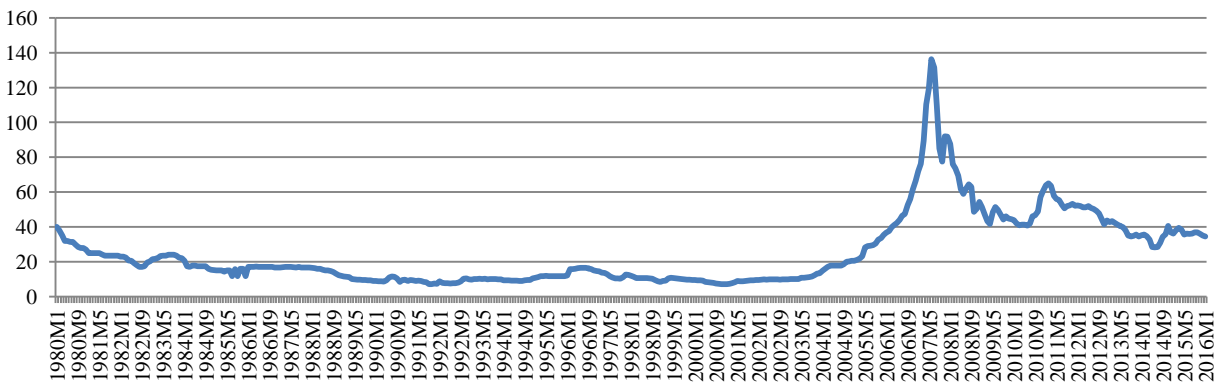
Chart 18: Nominal World Nickel Price, US\$/mt, Monthly, 1990-2015



Source: World Bank Commodity Price Data (The Pink Sheet)

The development of world nickel prices has been somewhat volatile over the past 10 years, peaking very briefly in 2007, falling by approximately 80 per cent back to historical levels, increasing slightly, and then decreasing once again by about 30 per cent. Though the price per metric ton is still somewhat above the historical average of the 1990s (not accounting for inflation), the trend has been steadily downwards since 2011. Though current nickel production seems safe, barring further falls in the price of nickel, exploration of nickel and development of new projects may be shelved unless the price shows signs of increasing once again. Fortunately, according to the World Bank Commodities Price Forecast, the price of nickel is expected to increase from about \$13,000 per metric ton to \$20,000 per metric ton by 2025. In their forecast, this is shown as a steady annual increase (World Bank, 2015b). Nickel is currently produced at Raglan and Voisey's Bay, and production is planned at two additional mines in Inuit Nunangat.

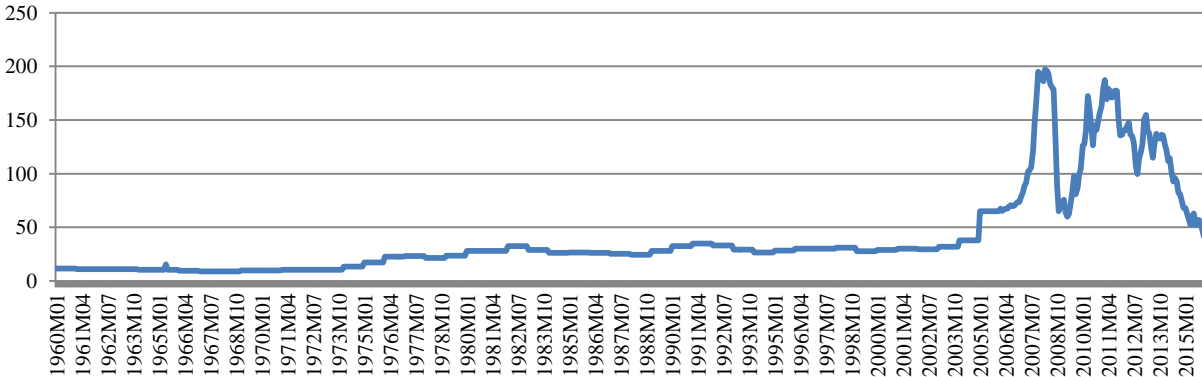
Chart 19: Index of Nominal World Uranium Prices, NUEXCO restricted price per pound, Monthly, 1990-2015 (2007 = 100)



Source: International Monetary Fund *Primary Commodity Prices*

The development of the global price of uranium has been broadly similar to that of nickel, barring the more robust increases in the price of nickel seen from 2009 to 2011. While uranium prices peaked in 2007, they have been on a steady decline since then, except for one small jump in 2011. Prices appear to have levelled off at approximately four times the prices found in the 1990s, and assuming current trends continue, most developments of uranium in Inuit Nunangat would appear to be feasible at around \$40 per pound. It is important to point out, however, that many analysts are projecting an increase in the price of uranium as demand from China and India for nuclear power increases and the world warms to the idea of nuclear power. Furthermore, Japan has restarted its first nuclear reactor since the shutdown of all of its plants after the Tohoku tsunami in 2011 and the Fukushima reactor accidents. Other factors are also pointing to an increase in demand for uranium (Conca, 2016).

Chart 20: Nominal World Iron Ore Price, US\$/dmton, 1990-2015



Source: World Bank Commodity Price Data (The Pink Sheet)

The price of iron ore has been the most volatile of the prices of examined commodities, experiencing a series of sharp increases and decreases from 2008 to 2015. Unlike nickel, uranium and gold, the price of iron ore peaked, sharply fell, and then regained most of its value in the space of two years, decreased somewhat over the next two years, and then rapidly fell again beginning in 2013. This volatility has been reflected in the production decisions of Mary River, currently the only iron mine producing in Inuit Nunangat, which in 2014 announced it would sharply curtail its planned production in response to the falling iron ore prices. Of all the examined commodities, mining for iron ore appears at this point in time to have the worst prospects, given that the current trend is still downwards and with prices already very close to their 1990s average in nominal terms. Even if the price of iron ore should rise again, as suggested by the World Bank Commodities Price Forecast (World Bank, 2015b), companies may hesitate to invest. This hesitation may arise because of the intense volatility of the past years, especially since the projected rise in price is modest, from \$56 per dry metric ton unit in 2015 to \$65 per dry metric ton unit in 2025, and not likely to offset the risk associated with potential volatility. However, this does not significantly harm the outlook for the mining industry in the long run in Inuit Nunangat, given that there is currently only one mine producing iron ore (albeit one that has very large capacity), and there are no other iron mines currently in planning or development.

iv. Mining Outlook

One area of concern, regardless of future developments in the number of mines producing in Inuit Nunangat, is the fact that, despite an effort by mining companies and Inuit organizations, there are relatively few Inuit accessing the jobs and opportunities created by existing mines. If the Inuit are to share in the prosperity generated by the industry there must be a far more concerted effort to train the local Inuit population in order to qualify them for mining jobs opening in or near their communities. It should be noted that, so long as people with the appropriate qualifications can be found, it makes financial sense for companies to utilize local Inuit labour, as this saves them substantial travel compensation costs that would otherwise be paid to southern workers flying periodically from and to their homes.

Overall, based on current trends as of February 2016, it would appear that the mining industry, especially nickel and uranium, is on relatively solid footing and could potentially be poised to be a large source of growth in employment and economic output, particularly in Nunavut, where the majority of exploration, planning and development is currently taking place. The mining sector is already a major source of employment and output in Nunavut with only two mines currently operating, so the multitude of planned or developing projects indicates that, even if some projects do not go ahead, any further mines opened could provide further gains to a region sorely in need of job opportunities and economic development.

However, commodity prices are crucial to establishing how many mines will in fact go beyond the exploration and development phases to the production phase, and the outlook for this is mixed, with nickel and uranium prices forecast to increase, while the gold price is also expected to see decreases and the price of iron ore is expected to see very little growth (as of February 2016).

Current projections of commodity price developments in the near future give some pause to the rosy outlook presented by the list of mining projects currently in development or planning presented in Table 6. Forecasters predict that prices for most commodities will fall in the coming years, driven by both supply-side and demand-side factors. Global supply of most commodities rose precipitously during the commodities boom, as producers opened up new mines in hopes of capturing the high prices. At the same time, global demand for commodities, especially the metals that are relevant to Inuit Nunangat, such as zinc and iron, has been trending downwards, reflecting decreased global growth. China, the largest importer of these metals, particularly iron, has been especially important to these developments. China has seen an economic slowdown in recent years, which has reduced the demand for metals (Exarhos and Grantham, 2015).

Gold, which is currently being mined at one site in Nunavut and will potentially be mined at three more sites, also faces near-term price decreases. This is due to the interest-rate hikes most observers feel that the US Federal Reserve is likely to undertake in the short or medium term, which will lessen the rate of return of holding gold relative to the returns of other, primarily financial, assets (Exarhos and Grantham, 2015). Furthermore, the global supply of gold has been steadily increasing since 2007, primarily driven by increases in production in Asia and Oceania (World Bank, 2015a). Unlike the metals discussed previously, gold is not projected to make a price recovery following short-term decreases, but is rather predicted to fall over the coming decade, reflecting its lessened value in a world of rising interest rates.

The only resource relevant to the Inuit Nunangat mining industry that is currently projected to see price increases is uranium, which is likely to be bolstered in the coming years by increasing use of nuclear power in Asian economies, particularly China and India (Bloomberg Business, 2015). Though prices are projected to increase by 60 per cent in the near future, increases in the supply of uranium, particularly in Australia, which holds one third of the world's uranium and is geographically well positioned to supply the emerging demand in Asia, will likely provide a brake on the upward momentum of uranium prices.

Overall, it would appear that the short-term outlook for commodity prices, and therefore the mining industry in Inuit Nunangat, is bad but not yet dire. Iron, which is projected to

continue its current downward price movement, is only being mined at one mine, and there are no further iron mines currently in planning or development. Many other commodity prices are also expected to remain low for a couple of decades because the boom in commodity prices in 2007-2008 has caused supply to expand greatly, but demand has not kept pace. One commodity that may prove to be an exception is uranium. There are several mines currently in planning or development. Uranium is likely to increase in price in the short term and looks to see reliable, growing demand from Asian economies. Canada is well positioned to deliver a portion of the supply to match that demand, as evidenced by the \$350 million uranium supply deal signed by Canada and India in April of 2015 (Globe and Mail, 2015). Gold may also present a unique exception to the expectation of low prices because of its role as a store of value.

However, it should be noted that the mining sector still has great potential for increasing welfare and employment within Inuit Nunangat, even if most of the projects listed in Table 6 do not go through due to low commodity prices. This is best understood by the fact that a single mine, Meadowbank gold mine, represents 18 per cent of Nunavut's economic output and provides employment for hundreds of people in a labour force of thousands. Any additional mines will have a significant economic impact on the associated regions and could provide a substantial boost to the local economy. There is a range of possible scenarios as to the future development of the mining industry in Inuit Nunangat – in a best case scenario, in which all of the currently planned and developing mines go through and there are no unscheduled closures, there are a potential 4,680 additional jobs in various mines across Inuit Nunangat in the next several years.¹¹ On the other hand, in a worst case scenario there may be no new mines and potentially even unplanned closures, which could result in a net loss of jobs. The path that will ultimately be taken will largely be determined by commodity price developments in the near and medium term future, with the broader economy of Inuit Nunangat, dependent as it is on the mining industry, held hostage to a certain extent by the development of global commodity prices.

B. Public Sector Employment

The public sector, herein defined as including public administration, health care services and education, has the largest share of GDP in Nunavut of all industries and it has the largest share of the labour force in Inuit Nunangat (Table 2 and Table 4). As with the Canadian provinces, Nunavut's government is split into federal, territorial and municipal levels, of which the territorial government employs the most people, particularly in the areas of health care and education.

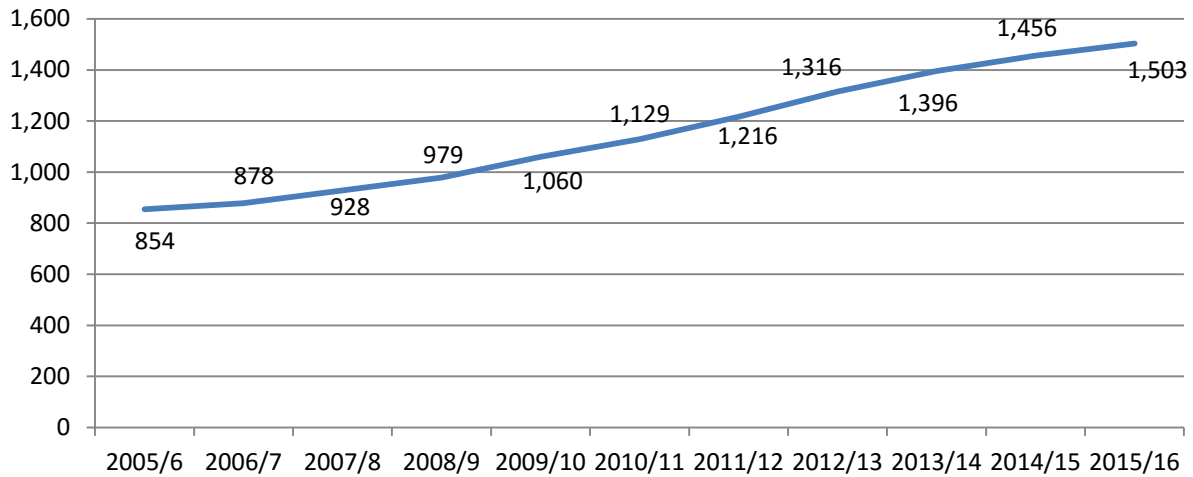
i. Nunavut

The public sector of Nunavut is one of the key contributors to incomes in the region, and provides a source of stable employment in an otherwise very uncertain labour market. The government of Nunavut employs approximately 6,000 people in its public service (Statistics Canada, CANSIM Table 183-0002), out of a total labour force of approximately 14,500 (Nunavut Bureau of Statistics, 2014). Public sector jobs in Nunavut tend to be immune from the

¹¹ This figure is reflective of the 'best case' scenario in which all of the developing and planned mining projects in Table 6 go through. The figure was derived through summation of all the permanent job estimates for each of the mines provided in Table 6.

normal economic fluctuations that take place in the economy due to the nature of its funding – approximately 90 per cent of its yearly funding comes in the form of federal government transfers, which have for the past years been annually increased, regardless of economic circumstances (Chart 21).

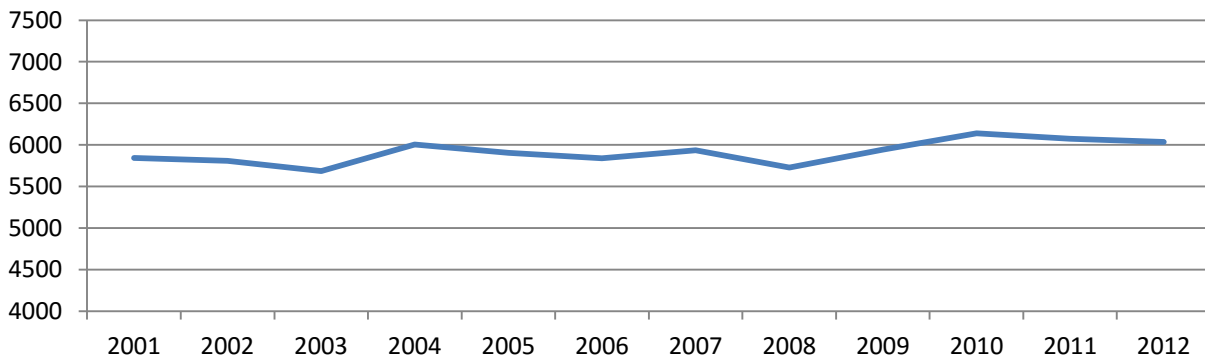
Chart 21: Total Federal Fiscal Transfers to Government of Nunavut, Millions of \$CND, 2005/6-2015/16



Source: Department of Finance Canada *Major Federal Transfers*; Nunavut Department of Finance 2005/6-2015/16 *Main Estimates*.

The fact that 85-90 per cent of Nunavut's public expenditures are financed via federal transfers, as opposed to local revenues such as the income, gas, tobacco, liquor or payroll taxes the territory collects, protects the territorial government from having to cut jobs during economic downturns, allowing it to keep total public sector employment relatively stable over the years.

Chart 22: Public Sector Employment in Nunavut, 2001-2012

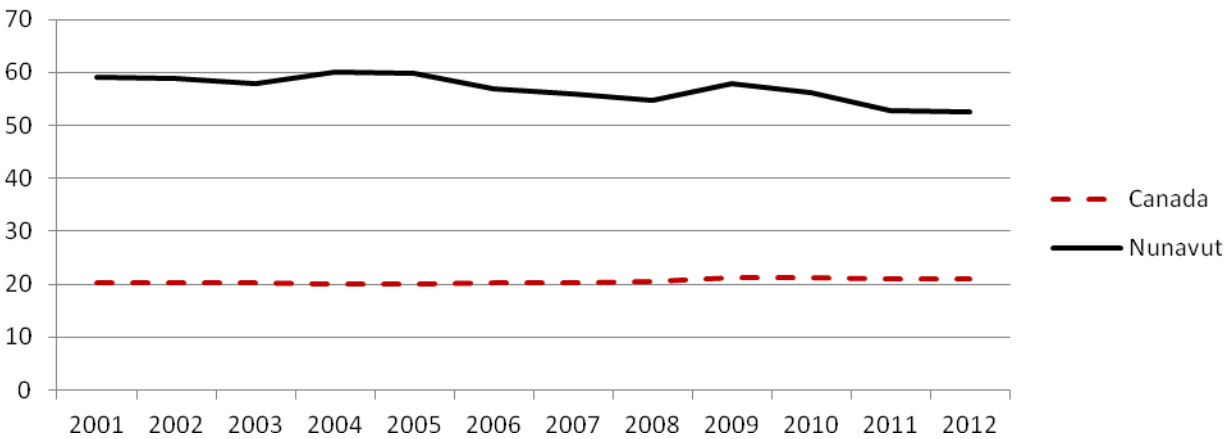


Source: Statistics Canada CANSIM Table 183-0002

Though there is some yearly variation, employment numbers in the public sector of Nunavut have remained fairly stable since 2001, with a slight upward trend over the time period up until 2012. In particular, public sector employment was up by 200 in 2012 compared to 2001. It would seem like in the past, the potential for further employment growth in the public sector is fairly limited, and we can reasonably assume that this will continue to be the case in the future.

It is important to point out that even though the Government of Nunavut is attempting to deliver more health and education services in Inuktitut, job opportunities for speakers of Inuktitut are likely to come about through the natural process of employment turnover and there is unlikely to be much job creation. The public sector already represents a large proportion of Nunavut's employment, so it is unlikely that there will be any large expansions of the territorial government that would necessitate large scale hiring. In fact, as Chart 23 shows, Nunavut has a drastically higher proportion of public sector employment as a share of total employment than Canada as a whole.

Chart 23: Public Sector Employment as a Share of Total Employment, Nunavut and Canada, Per Cent, 2001-2012

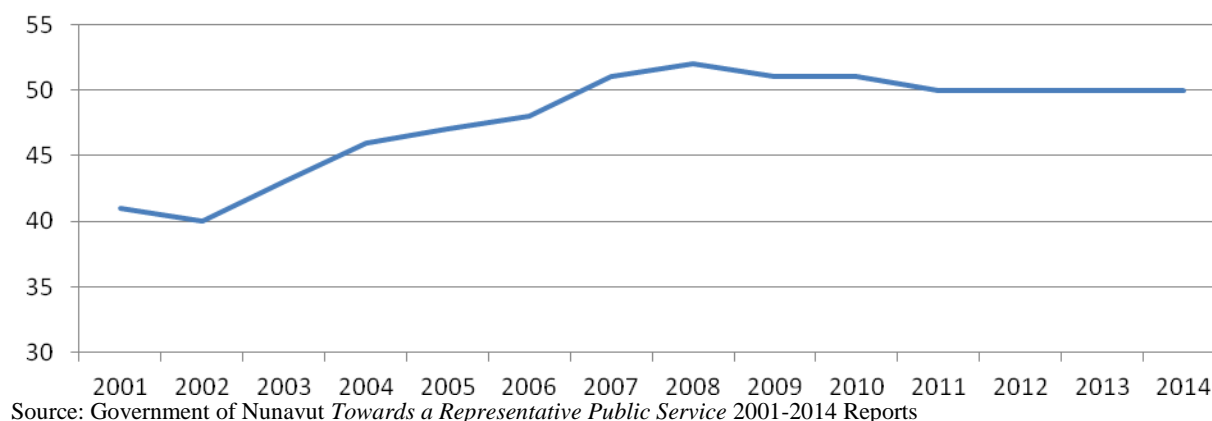


Source: Statistics Canada, CANSIM Tables 183-0002, 282-0087

The proportion of employment in Nunavut working in the public sector has, since at least 2001, been far above that of Canada, which has held steady at about 20 per cent since 2001. Although the proportion of public employees in Nunavut has been steadily decreasing since 2005, save for a small upturn during the 2008/9 recession, it still represents more than 50 per cent of total employment within Nunavut, indicating an economy dominated by the public sector.

ii. Inuit Employment in Nunavut Public Sector

It is the Government of Nunavut's official policy, in the form of Article 23 of the Nunavut Land Claims Agreement, to strive for a representative public service, with an official goal, set in 2003, to have Inuit persons make up 85 per cent of the territorial public sector workforce. The territory regularly releases reports detailing Inuit employment statistics, which show the progress the territory has made in attempting to reach this goal (Chart 24).

Chart 24: Proportion of Government of Nunavut Jobs Held by Inuit, 2001-2013

The territory has made definite progress in increasing the share of Inuit in its workforce in the public service (41 per cent in 2001 to 52 per cent in 2008), though this proportion has dropped to 50 per cent in 2014. This increase has however not been broad based across the different levels of employment. Table 9 compares the development of Inuit employment across several employment categories.

Table 9: Inuit Share of Total Employment by Category, Nunavut Territorial Government Employees, June 1999 and December 2014, Per Cent

Employment Category	Inuit Share of Employment, Per Cent	
	June 1999	December 2014
Executive	61	38
Senior Management	22	21
Middle Management	25	24
Professional	41	27
Paraprofessional	47	72
Administrative Support	64	88
Total	44	50

Source: Government of Nunavut *Towards a Representative Public Service* December 2014 Report

The only employment categories that have seen increases in Inuit employment as a proportion of total employment are administrative support and paraprofessionals. The proportion of Inuit professionals and executives in the territorial government has decreased substantially since 1999, while the proportion of Inuit senior and middle managers has remained relatively constant over the 12-year time period. It should however be noted that falling Inuit representation at the executive and professional levels does not necessarily represent lower

numbers of Inuit workers, but rather an expansion of the total number of people hired in these categories that went largely filled by non-Inuit. However, this is not meant to belittle the increase in the Inuit share of employment in administrative (64 per cent to 88 per cent) and paraprofessional jobs (47 per cent to 72 per cent). These exceptional increases have certainly helped cover some of the distance toward the goal of 85 per cent in the aggregate.

It is important to point out that despite stable employment the public sector is not a driver of autonomous economic growth as it does not sell goods and services that bring money into the region. Indeed, economic development is not defined as the creation of jobs by the government in public administration, health care and education, although these services are needed to support private sector job creation. In contrast, mining is more promising autonomous driver of economic growth. It is the most likely source of private sector job creation in the Inuit homeland as long as commodity prices allow for the development of new mines and the continuation of existing mines.

C. Potential Sources of Employment and Growth

In addition to mining and the public sector, which already provide substantial employment within Inuit Nunangat, there are a number of sectors that have significant economic potential in providing future income and employment. Some of these sectors revolve around traditional Inuit activities, such as hunting, fishing or the pursuit of Inuit art, and if properly commercialized, could open up avenues for the Inuit to make a living in a way that is not being realized today. Other sectors could provide increased employment to the Inuit not by growth per se, but rather by Inuit-owned businesses providing goods and services that are currently being largely provided by non-local businesses: an import substitution strategy could be considered.

i. Inuit-owned Businesses

When it comes to opportunities for Inuit-owned businesses in Inuit Nunangat, there are broadly two categories. The first is businesses providing goods and services within Inuit Nunangat that would otherwise have to be contracted out to firms from other parts of the country, and the second is businesses that enter new commercial spaces that can produce goods for export.

One of the areas for which there is potential for increased Inuit employment in providing existing goods and services is in construction. This industry has seen large growth in the twenty-first century, particularly in Nunavut, and it employs a significant number of people in each of the Inuit Nunangat regions. In recent years, there has been a drive towards employing local Inuit contractors to do construction work. For example, it has become common to include Inuit contracting requirements in IBAs related to mining projects. While it is not always possible to find an adequate available Inuit contractor for all services, there is an expectation that the construction related to mining should, whenever possible, make use of local Inuit contractors. This has had the effect of making sure that Inuit workers in the construction industry have been able to find employment in the construction of mining projects.

One example of this is Nuna Logistics, a certified Inuit firm with a 34 per cent Inuit workforce (last reported for 2013-2014) that has been involved in some of the building related to

the Meadowbank, Mary River, Diavik, and Doris North mines. Certification as an Inuit firm takes place under Article 24 of the Nunavut Land Claims Agreement, which states that a firm may claim Inuit status if 51 per cent or more of ownership is in Inuit hands. Certified Inuit firms receive some preferential treatment when bidding for work.

However, it can be difficult to meet many construction needs with Inuit firms alone. TMAC, a mining company active in Nunavut, reported only 14% of its person-hours worked in the construction of Doris North mine as being done by Inuit employees. While most ordinary construction work can be done by Inuit contractors, more specialized services, such as drilling, necessitate the use of outside contractors, which lowers the proportion of work done by the Inuit (Northern News Service, 2014).

Air travel is another area in which services are provided by Inuit businesses, through companies such as Air Inuit, owned by the Makivik Corporation. This not only leads to Inuit-owned businesses providing vital services to Inuit communities in the north, but also to the returns from providing these services to remain within the communities while at the same time providing substantial employment opportunities (according to their website Inuit Air employs 300 people, though it is unclear how many of these are themselves Inuit).

Each of the Inuit Nunangat's four regions is home to one, if not multiple, economic development corporations like the Nunavik-based Makivik Corporation, the Inuvialuit region Development Corporation, the Nunavut Development Corporation, and the Nunatsiavut Group of Companies. These corporations seek, through ownership of businesses, to help develop Inuit Nunangat and provide employment opportunities to the Inuit. These development corporations are also involved in the provision of services to the local populace and the development of goods and services for export, including leathers and furs, clothing, construction, cruises, shipping, fishing, transportation and real estate.

An instructive example of a business that is not only locally owned, but also incorporates Inuit knowledge and traditional activities, is the recently re-opened eiderdown factory in Sanikiluaq in Nunavut, where local Inuit are paid to collect the down left by thousands of eider ducks. Not only does such a business provide employment and profit making opportunities by producing a good that is highly desirable and easily exportable, but also helps boost the local community by working with other locally owned businesses, such as Belcher Island Designs, which sells parkas and duvets sewn by locals using the collected eiderdown (Ottawa Citizen, 2015).

The key to promoting Inuit-owned businesses is to support them in the crucial beginning phases, as often people wishing to start a business or provide certain services lack the introductory know-how, technical expertise or prior experience in the field. Like in so many other areas related to Inuit employment, most Inuit are capable and willing to provide services and work, but lack the specific skills, technical know-how or start up capital to begin.

ii. Fishing

Many people living in Inuit Nunangat have substantial skills related to fishing and hunting, both traditional Inuit activities that for centuries provided the basis for Inuit subsistence.

Nevertheless, relatively few people in Inuit Nunangat make an income based on these activities. According to the 2011 Aboriginal Population Profile, 150 people in Inuit Nunangat were employed in agriculture, forestry, fishing and hunting. However, taking into account the seasonal nature of employment in the industry, Impact Economics in 2013 estimated that, in a typical year, approximately 200 people are employed at some point in the fishing industry in Nunavut alone, indicating that the numbers in the Aboriginal Population Profile may be underestimating employment in these areas.

This is further bolstered by the Nunavut Fisheries and Marine Training Consortium, which was formed in 2005 to train Inuit for a career in fishing, and has generated 718 course completions for various positions in the fishing industry. While the sector is still in development, in Nunavut it has more than doubled the value of shrimp and turbot, the two main types of seafood caught, in the time period of 2001-2011. Currently most Nunavummit (residents of Nunavut) employed in the fishing industry are in entry level positions within established fishing companies, but they have been advancing into more senior and higher-paying positions (Impact Economics, 2013).

There is certainly potential in Inuit Nunangat's fishing industry for further expansion, especially given that the barriers to entering the industry have been decreasing in recent years. Moreover, the regularity and predictability of absences caused by working in the industry (as opposed to mining, where absences away from family tend to last several weeks and are not necessarily regular) make it an attractive option for people looking for employment. Furthermore, employment is made more accessible via resources such as the Nunavut Fisheries and Marine Training Consortium, which provides training opportunities in Inuit Nunangat in the fishing industry.

Another factor that speaks for the growth potential of the fishing industry is the trend towards not only catching fish in Nunavut, but also processing them in local communities before they are exported. Currently, there are only four fish processing plants across Nunavut. However, the Government of Nunavut is actively attempting to solicit investors in order to set up more across the territory. The CSLS believes that pursuing additional fish processing in Nunavut and other Inuit Nunangat regions is a promising economic development strategy. This belief is further justified by the fact that in all other circumpolar communities, fish processing is a major industry (Duhaime and Caron, n.d.).

iii. Arts

The vast majority of Inuit who participate in the arts derive only some of their income from selling artwork, supplementing their main source of income. A 2010 Government of Nunavut Survey of the Arts in Nunavut concluded that, of the estimated 3,000 artists (1,068 full time) working in the territory, the lowest-earning 1,815 had annual earnings averaging \$2,750, and that only 465 earned an average salary of over \$20,000 with their artwork. This same study estimated that art and artists contribute \$33.4 million to Nunavut's GDP in 2009, which at the time represented approximately 2.4 per cent of Nunavut's GDP (Nordicity, 2010). This figure is significantly higher than those presented in Table 4 (\$2 million chained 2007 dollars or 0.1 per cent of GDP in 2014), perhaps reflecting the unofficial, under-the-table nature of much of Nunavut's arts trade.

The output of the arts in Nunavut has however been shrinking in the past years, going from generating \$33.4 million in 2009 to \$30.3 million in 2013, representing a 9 per cent decrease in overall arts economic activity and a 34 per cent decrease in wholesale art sales. There are a number of factors contributing to the decrease in activity and profitability in the sector, including declines in global art sales, increased market supply of Inuit art, increases in the restrictions on animal products, and lower demand for animal products (Murphy, 2015).

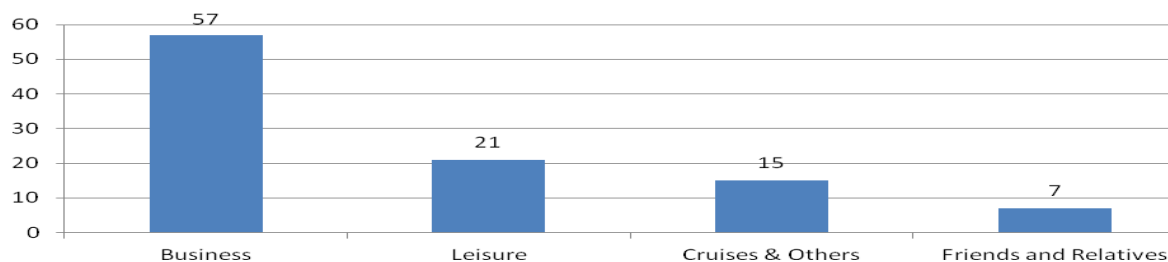
The biggest challenge facing artists in Inuit Nunangat is the lack of infrastructure for selling their artwork, as the number of galleries has been shrinking in recent years. The lack of accessible and affordable internet in many communities makes it difficult to sell such products online, increasing reliance of artists on third parties to sell their wares, given that the cost of rent and utilities often precludes artists from operating their own establishments. Nunavut has announced a Heritage Centre to be built in Iqaluit, which is partially designed as a forum for artists to promote and sell their wares, but there has been little progress on turning this idea into reality (Impact Economics, 2013). Many other regions would benefit from increased recognition and support of local artists.

iv. Tourism

The tourism sector in Inuit Nunangat, already fairly established in Nunavut, Nunavik and Nunatsiavut, has potential to grow further and become a key driver of Inuit Nunangat's economy. This is because the popularity of Canada's aboriginal tourism offerings—from indigenous cuisine to guided fishing trips—continues to grow as travellers' demands for 'authentic' experiences increases (Kat Tancock, 2015). All three of these regions have governmental departments dedicated to promoting and expanding tourism, based primarily on cultural, natural, and recreational attractions.

Only Nunavut has publicly available figures on employment and GDP resulting specifically from tourism. In 2011, approximately 30,000 visitors to Nunavut were estimated to have contributed \$40 million dollars in real GDP to the Nunavut economy, generating 3.2 per cent of territorial GDP, and providing employment for 1,258 Nunavummiut (Government of Nunavut, 2012). Tourism has a large potential for economic activity due to the fact that it incorporates a number of industries: tourism operators involving guides or structured activities, hotels, restaurants, airlines, cruise ships and local businesses all stand to benefit from tourism in one way or another.

Developing tourism further to take greater advantage of Inuit Nunangat's natural and cultural heritage and to create greater opportunities for employment will involve several steps. First, it is necessary to build up and promote infrastructure that showcases Inuit culture and heritage and creates easily accessible experiences for tourists to enjoy. This is the broad thrust of the Government of Nunatsiavut 2014 to 2020 Tourism Strategy, which seeks to "lay the foundation for tourism development" by investing in areas such as cultural centers, natural attractions, and historical sites (Government of Nunatsiavut, 2014). Such investment is critical to ensuring that there is a full range of activities and offers for tourists to choose from. Doing so is an important prerequisite for attracting more leisure tourists to the region. This is the class of

Chart 25: Travellers to Nunavut, Per Cent of Total, 2011

Source: Government of Nunavut, 2012

tourists which has the potential for the most expansion as seen by the breakdown of travellers to Nunavut of which the majority were business travellers followed by leisure travellers (Chart 25).

An important part of attracting more tourists to Inuit Nunangat is targeting both Canadian and foreign tourists. Approximately 91 per cent of Nunavut's (72 per cent of leisure visitors), and 59 per cent of Nunatsiavut's tourists are Canadian (Government of Nunavut, 2012; Government of Nunatsiavut, 2014), indicating that greater advertising and promotion of tourism opportunities in Inuit Nunangat may be able to attract a greater portion of the growing international tourism market. One means of doing so is by partnering with other, related global tourist attractions and providing easy means of travel between them.

One example of such is the Air Greenland Iqaluit–Nuuk (in Greenland) route, which until 2015 provided a direct route between the two arctic tourist regions (CBC News, 2015). Raising the profile of Inuit Nunangat tourist attractions in partnership with other popular locations could help raise awareness of Inuit Nunangat and help attract tourists by making it easy to incorporate a trip to Inuit Nunangat into travel to other destinations. Attracting additional foreign tourists should be made easier by the weak Canadian dollar

There are still challenges ahead in Inuit Nunangat's tourism industry, especially in terms of reorienting tourism to accommodate the growing trend toward eco-tourism, namely tourism that is environmentally low-impact, and away from traditional tourism activities in Inuit Nunangat like traditional hunting of polar bears, caribou, and musk-ox.

The importance of this transition is made clear by the \$6 million decrease in revenue to associated outfitters for polar bear, caribou, and musk-ox sport hunting, as well as sport fishing, since 2006 (Government of Nunavut, 2012). In order to replace such activities there must be a concerted effort to invest in and open new opportunities for tourists in new areas that could include animal watching and hiking, as well as sporting and cultural activities. This effort and investment is already beginning to take place. Redirecting tourism efforts will not only benefit Inuit Nunangat in the longer-term through increased employment and economic activity, but it will also benefit Canada as a whole, as Canada's indigenous history is truly unique. New Zealand, a country with a similarly unique indigenous population, has seen its Maori-based tourism reach \$5 billion a year (Archer, 2016).

Section IV: Barriers to Economic Development

Evaluating the economic and social outcomes in Inuit Nunangat necessitates a discussion of the concrete factors that are keeping Inuit people from fully participating in the labour market. As evidenced earlier in this report, Inuit participation in the mining industry, public sector and many other sectors is quite limited, especially in skilled positions. This section will therefore seek to present the main structural barriers preventing Inuit people from accessing already available jobs and opportunities or creating their own via entrepreneurship.

A. Lack of Education

As documented earlier in this report, there is a crisis in Inuit educational outcomes spanning all four regions of Inuit Nunangat. Educational outcomes among Inuit Canadians lag far behind those of the Canadian population as a whole and have done so for decades. The educational profile of the Inuit is quite disappointing, as two-thirds of Inuit people have no educational qualifications whatsoever. There are a number of areas in which improvements to the existing educational system, both in the form of public education and beyond, could lead to significant benefits in terms of providing Inuit with the skills and qualifications necessary for participating in the modern economy. This section will explore the deficiencies of the current system as well as investigating a number of avenues for improvement of the education situation in Inuit Nunangat.

i. Challenges in Education in Inuit Nunangat

Lack of even the most basic educational credentials such as a high school diploma is very damaging to both an individual's and a community's economic potential in a number of ways. Such credentials act as a signal for employers, guaranteeing the applicant's aptitude in basic skills essential to succeeding in the workplace, skills such as reading, writing and arithmetic. They signal a degree of reliability and dependability, as a lack of such credentials tends to indicate academic or social troubles that led to dropping out of high school and may be problematic in a workplace environment. Finally, such diplomas act as prerequisites for further education and specialization, which is increasingly essential in most employment fields in Canada. Lacking this basic prerequisite hinders a substantial portion of Inuit people living in Inuit Nunangat from accessing available job opportunities, be they positions in the mining industry that require a degree of specialization or a high-level position in the public service that requires formal management or academic training.

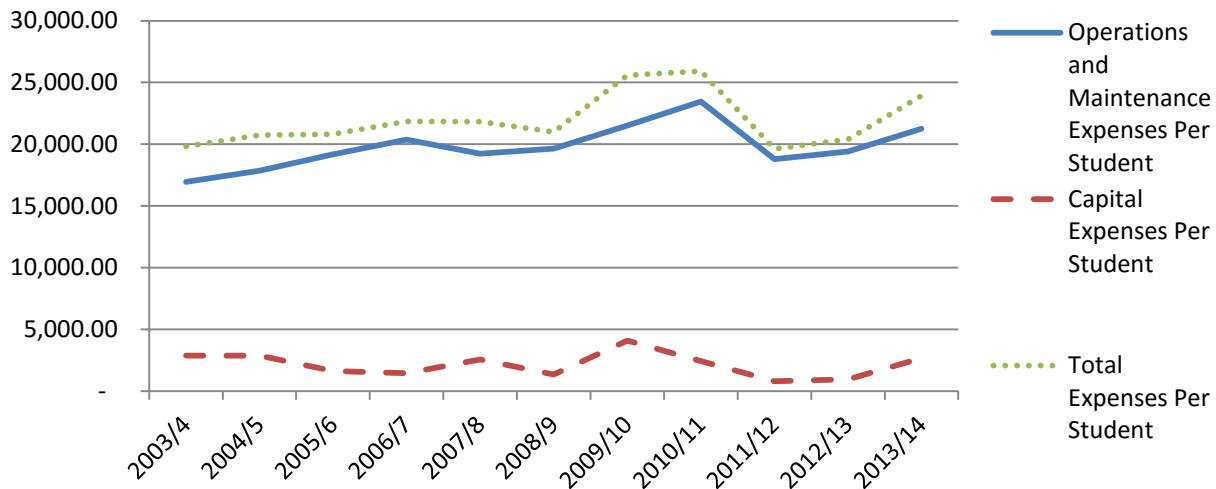
The basic challenges faced in Inuit Nunangat in the realm of education appear to fall along two interconnected lines. First, the responsible authorities in each of Inuit Nunangat's regions must work to drastically improve educational outcomes in the existing public school system, where an estimated 75 per cent of Inuit youth fail to graduate from high school (ITK, 2011). Unless there are dramatic changes that result in higher graduation rates and better educational outcomes that better qualify future generations of Inuit, the crisis in Inuit education and employment will likely continue indefinitely, with future generations unable to realize the gains of economic growth and development.

The second, related, challenge revolves around improving access and opportunities for Inuit, both current and future, to achieve higher levels of post-secondary academic qualification and specialization. In an increasingly globalized and competitive economy most careers require some degree of specialized training or education. The path towards these opportunities must be open to future generations of Inuit as well as those who currently have no qualifications.

ii. Education Funding and Outcomes in Nunavut

The first step in examining the current educational system is to evaluate its level of funding. The nature of Inuit Nunangat, spread out as it is over two territories and two provinces, makes it difficult to find comprehensive up-to-date statistics in most fields relating to Inuit Nunangat as a whole. This is particularly true of education, the responsibility for which lies at the territorial and provincial level. In particular, data, if available, are not differentiated between education spending on Inuit and non-Inuit populations. The only region in which it is possible to evaluate such data is Nunavut, which is the only Inuit-majority territory in which the educational expenses are spent overwhelmingly on Inuit people. Using the data made available through the Nunavut Department of Finance on its annual budgets, as well as the Nunavut Bureau of Statistics' information on public school enrolment, it is possible to track education spending per student in Nunavut (Chart 26).

Chart 26: Total Spending per Student in Nunavut Public School System (K-12), 2003/4-2014/15



Source: Nunavut Bureau of Statistics Public School Enrollment by Grade, Nunavut Department of Finance Annual Budget Estimates 2003-2014

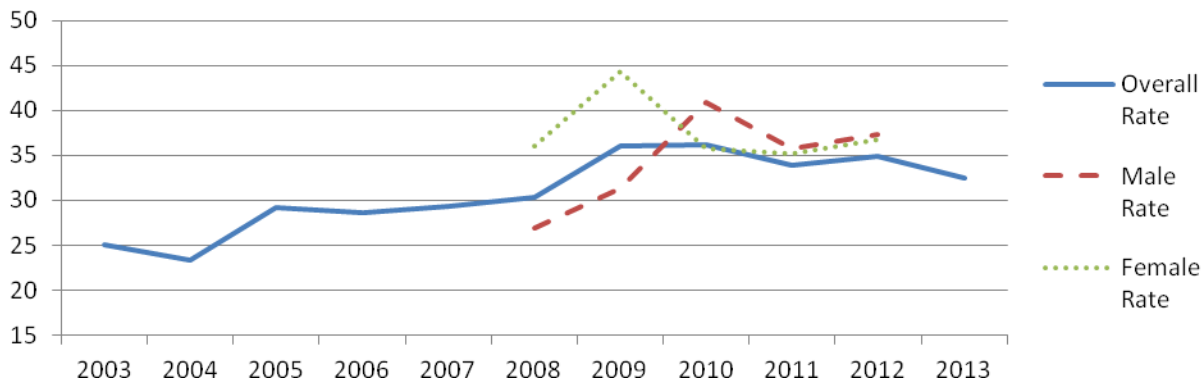
As can be seen, Nunavut's spending per pupil, both on operational and capital cost terms, has been relatively steady in the past years, with total expenses per student tending to average a bit more than \$20,000 per student. The two exceptions to this are in 2009-2011, where spending per student rose to more than \$25,000 per student, and in 2013/14, where spending has once again risen, this time to almost \$24,000 per student. These two periods were however exceptions rather than the norm, as the 2009-2011 increases in spending evened out by the 2011/12 fiscal year, and the more recent increases in spending per pupil being due to a smaller pool of enrolled students rather than due to increased spending.

During this time period there has been an improvement in terms of the educational outcomes of the Nunavut public school system (Chart 27). From 2003 to 2010, the graduation rate, calculated using a ratio of graduates to the total population of 17 and 18 year olds (those old enough for graduation), steadily increased from 25.0 per cent to 36.2 per cent, after which there was a slight multi-year decline down to 32.5 per cent in 2013. Given this, it could be argued that the increases in spending per pupil in the 2009/10 and 2010/11 fiscal years corresponded to an increase in graduation rates, and that spending substantially more is the solution to flagging graduation rates and lack of educational qualifications. However, there are reasons to be skeptical.

First, one must recognize that spending per pupil is already substantially above that found in Canada outside of the north. Average spending per pupil in Canada came to \$11,835 in the 2011/12 fiscal year, with provincial values ranging from \$10,201 in Quebec to \$13,497 in Alberta (van Pelt and Emes, 2015). This represents a substantial gap of multiple thousands of dollars per pupil but educational outcomes are still far worse than those in southern Canada. Though some part of this gap can surely be explained by the higher cost of operating schools in Nunavut, these figures should give pause to any who believe that additional financing and even greater spending per pupil is the cure-all for improving educational outcomes amongst the Inuit.

Furthermore, the increase in graduation rates from 2003 to 2010 was not broadly based, but rather was concentrated heavily among male students. In fact, a simultaneously falling female graduation rate prevented the overall rates from increasing further, a trend especially observed from 2008 to 2010, after which the rates for the two genders converge (Nunavut Department of Education, 2013.) Finally, the improved graduation rates observed over the 2003-2009 time period did not correspond with substantial increases in per pupil spending, undermining the argument further.

Chart 27: Public School Graduation Rate, Nunavut, Per cent, 2003-2013



Source: Nunavut Bureau of Statistics *Nunavut Secondary School Graduates*; Nunavut Department of Education, *2013 Annual Report*.

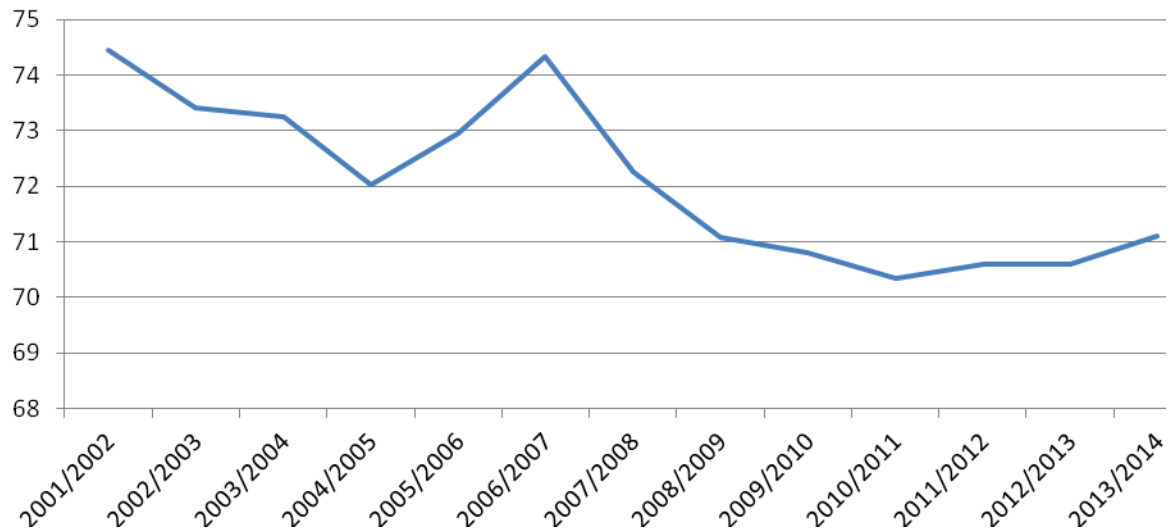
The data for the overall graduation rate was taken from the Nunavut Bureau of Statistics, which provides a long-term perspective on graduation rates, while the gendered graduation rates are taken from the Government of Nunavut's Department of Education, which provides

information regarding a shorter time frame but breaks down graduation rates by gender. The two sources report graduation rates that are broadly, but not exactly, the same.

iii. Improving Public Education in Inuit Nunangat

There are a number of areas of improvement that have been identified as being key to boosting the engagement of Inuit students within the educational system. One of the main symptoms can be seen in the attendance of Inuit students in their schools. Chart 28 shows the attendance rate, defined as the percentage of total school days for which the average student attended school. As can be seen, this rate has been falling since the 2001/02 school year to the point where the average student in Nunavut is in attendance for approximately 7 of 10 days of school.

Chart 28: Nunavut Public School Attendance Rate*, 2001/2-2013/14, Per Cent



* The attendance rate is the percentage of total school days for which students attended school. This rate is calculated by dividing the total number of days for which students are marked present or late by the total number of scheduled school days.

Note: 2012/2013 value same as for 2011/2012 due to lack of information for 2012/2013 school year.

Source: Nunavut Bureau of Statistics, *Nunavut Public School Attendance Rate, 2001-2002 to 2013-2014*

School attendance can be viewed to a certain extent as a measure of student's engagement and involvement with their school, given that a student who is physically present during lessons is likely to learn and succeed relative to someone who often misses class. Since school curricula are cumulative and build on what was learned previously, missing a large number of school days is detrimental to the goal of successfully obtaining a high school diploma. Unfortunately, these poor attendance rates are seen across all age groups, and in fact are lowest in Grades 8 through 12, the most crucial years in which graduation success or failure is determined (Nunavut Bureau of Statistics, 2015).

There have been several suggestions as to what measures need to be taken in order to improve attendance in schools and thereby hopefully increase student engagement and educational success. It has been suggested that the school calendar should be changed to better reflect traditional Inuit activities, as many students prioritize communal and seasonal activities or

celebrations such as traditional hunts over attending school. Increasing the flexibility of the school year and better integrating such activities into the calendar may work to increase attendance.

The second thrust that may improve attendance and engagement is the first recommendation of the National Strategy on Inuit Education released in 2011, which involves mobilizing parents and actively tying them into their child's education. This is based on the "growing body of research [that] suggests that parents' attitudes toward education, their values, and the amount of communication between home and school are linked to student success rates" (ITK, 2011). Involvement and tie-ins for parents to their children's education, by incorporating culturally relevant practices such as heritage fairs and breakfast programs, is viewed as essential to getting parents to be more involved and to push their children toward greater engagement in school.

Third, in a suggestion embraced both by the National Strategy on Inuit Education and the Nunavut Literacy Council, it is recommended that the Inuit education system's curriculum be retooled to be far more Inuit-centered, both in terms of the material studied but also in terms of language use, where the Inuit language is far more integrated and taught as one of the main languages. This is based on the finding that Aboriginal students are more engaged and learn better when it is based on their real life experiences rather than on southern curriculums that have been retooled (Sisco et al, 2012). There is currently an overwhelming lack of supply of qualified teachers who are also speakers of Inuktitut (ITK, 2011) so this process will undoubtedly take some time.

iii. Improving Access to Post-secondary Qualifications

"There is a growing understanding among Inuit that higher education has become a prerequisite for most of the existing and emerging employment opportunities available in Inuit Nunangat" (ITK, 2011). This is undoubtedly true for all areas of Canada, but especially in Inuit Nunangat, where many jobs, especially in the mining and public sectors, are filled by non-Inuit people. Changing the status quo, where only one fifth of the Inuit living in Inuit Nunangat have some form of post-secondary education will necessarily begin with an effort to improve the proportion of people with at least a high school diploma, so as to provide people with the prerequisites for higher education. In order to boost the number of people with postsecondary diplomas there needs to be a two-pronged approach: aiding those who have a high school or equivalent diploma in achieving higher levels of education, and aiding those who do not have a high school or equivalent diploma.

In aiding those who do not have a high school or equivalent diploma, the primary federal program designed to assist in the uptake of training and skills is the Aboriginal Skills and Employment Strategy (ASETS), which offers skills training, education and assistance with job hunting to Aboriginal Canadians. Launched in 2011, this program expires in 2016, after which a replacement program or further extension will hopefully be announced. The need for this program is indisputable, given the low educational attainment of the Inuit population. In a survey of 67,568 participants, 6 per cent (4,054 persons) reported Inuit identity (Employment and Social Development Canada, 2014). While evaluation of the program led to the conclusion that participants on average had higher incomes and higher employment rates after participation, a

significant portion of participants were not able to find work. In the 2012-2013 class of participants, only 30 per cent were employed or self-employed after taking part in the program (Employment and Social Development Canada, 2014). These figures are for all participants. It may be the case that the Inuit were more likely to continue to lack employment post-participation. Given these figures, ASETS should be renewed or extended post-2016, but the focus must shift to outcomes, with the goal of not only upgrading skills, but also finding employment afterwards.

Providing higher education to those who do have a high school diploma must also be a priority for Inuit Nunangat. The territory of Nunavut has taken several steps to assist in this process, including the Nunavut Sivuniksavut program,¹² which is designed to assist students in the transition between high school and post-secondary education, and a partnership with the University of Prince Edward Island for student leaders in education. Programs to educate people to fill specific needs in Inuit Nunangat, such as for Inuktitut-speaking educators, could be modelled after successful programs utilized by other Aboriginal groups done in cooperation with institutions across Canada. One such program, the SUNTEP program offered by the Gabriel Dumont Institute, has graduated over 1,000 Métis students since 1984, providing them with a tailored education designed to reflect the specific needs of Métis educators (Thomas, 2015.) However, such initiatives, while welcome, do not address the substantial costs, in terms of time, money and travel, needed to attain postsecondary education as an Inuit student, who must likely travel to a southern university or college to attain their degree.

Minimizing such costs and making post-secondary education more accessible to Inuit living in Inuit Nunangat will involve the expansion of the existing post-secondary infrastructure, which would go a long way to providing greater opportunities. Although there is a college in Inuit Nunangat, the Nunavut Arctic College, there is no university in Canada's north. The Nunavut Arctic College does, however, provide post-secondary education in several fields, namely teaching, nursing, business, fine arts, environmental studies, management, human services and Inuit studies.

Reviewing the case of the Sami in Norway and the creation of the Sami University led the National Committee on Inuit Education to conclude that the creation of a northern university in Inuit Nunangat could help by not only making university a more easily realizable goal for most Inuit students, but could also help build a body of research about the specific circumstances in Inuit Nunangat that would allow for a better understanding of the issues faced by the Inuit people (ITK, 2011). Such a university would not only be able to tailor its program to the specific skills and academic needs of Inuit Nunangat, but could also build its curriculum and studies with regard to Inuit culture and language, a benefit that cannot be realized for Inuit students anywhere else. Experiences amongst Canada's Métis show that the establishment of research institutions geared specifically towards the issues surrounding a particular community can substantially help both with identifying and providing solutions to community specific issues (Thomas, 2015). Given the lack of research about Inuit Nunangat, such Inuit-centric research institutions may lead to a better understanding of the issues and solutions to the problems.

¹² See <http://www.nunavutsivuniksavut.ca/> for more details.

Overall, there are many challenges and issues facing Inuit Nunangat in terms of equipping its population with the education and skills necessary to fully participate in the labour market and enjoy the benefits of employment. By far the greatest challenge for this system is to restructure education so as to produce generations of young Inuit that have an educational profile more similar to that of the Canadian population, with most people having attained the bare minimum of a high school diploma and a large proportion going on to further education. Aside from this, substantial efforts must be made to increase the opportunities and chances for those who have already completed their schooling, through adult education and skills training, and more must be done to increase the capacity of Inuit Nunangat to offer relevant skills and education that is tailored to its unique needs.

Finally, it is worth emphasizing that online learning is not a solution to post-secondary education in the North. First, online learning solutions have never been able to fully replicate the campus learning environment. Second, and most important, unless infrastructure is further developed in the North, then online learning is not an option, as the majority of households are either not connected to the Internet or their user fees are too high for them to access the Internet frequently and consistently enough for studies. Even in cases where the Inuit households are connected to the Internet, slow connectivity speeds limit the ability for individuals to participate in online training and courses.

B. Cost of Living and Doing Business

i. Overview

One of the enduring features of living in Canada's northern areas, encompassing all regions of Inuit Nunangat, is the high cost of living and doing business. Goods and services provided in Canada's north are, for a variety of reasons, much more expensive than those provided in southern parts of the country. One 2009 estimate put the cost of living in Nunavut specifically at 1.65 times the level in southern Canada (Legare, 2009). Average household expenditures in 2009 were 1.3 times greater in Nunavut than in southern Canada,¹³ but due to the price level, which is estimated to be 65 per cent higher, the real purchasing power of Nunavut households is 78 per cent that of their southern counterparts. However, even this statistic is misleading, as average household income in Nunavut is far higher than that of Inuit households in Nunavut, indicating that Inuit households have even less purchasing power.

The fact that the cost of living is so much higher in Inuit Nunangat regions makes comparisons of incomes between northern and southern Canada deceptive. While nominal income per capita in Northwest Territories and Nunavut appears to be on par with other areas of Canada, the purchasing power of a dollar in these regions is substantially lower than in other regions, and hence the living standard is lower and poverty greater.

The high cost of living in Canada's north encompasses most products and services. Most prominently, essentials such as food and basic items are sold at far higher prices in northern areas. This is demonstrated by the 2015 Nunavut Bureau of Statistics Food Price Survey, which compared the prices of common food and grocery items in Nunavut to those in the rest of

¹³ Statistics Canada, CANSIM 203-0021

Canada. Using the average price of a variety of goods in Nunavut and Canada, the Nunavut Bureau of Statistics produced a Nunavut-Canada ratio, denoting the ratio of average prices in Nunavut to those in Canada (Table 10).

Table 10: Nunavut-Canada Price Ratio, Assorted Grocery Items, 2015

Item	Nunavut-Canada Price Ratio
Milk, 2%	1.37
Butter, Salted	1.58
Eggs	1.18
Canned Bake Beans	3.31
Canned Tomatoes	3.09
Canned Vegetable Soup	2.53
Cooking Oil	2.20
Flour, All Purpose White	2.70
Sugar, White	3.10
Orange Juice	2.73
Baby Food, In Jars	1.63
Apples	1.70
Bananas	2.66
Carrots	3.14
Potatoes	2.23
Stewing Beef	1.79
Whole Chicken	1.40
Sliced Bacon	1.86
Bathroom Tissue	2.89
Toothpaste	2.40
Shampoo	1.98
Cigarettes	1.63

Source: Nunavut Bureau of Statistics, 2015
Nunavut Food Price Survey

Food is, however, far from the only category of expenditure in Inuit Nunangat which is afflicted by high costs. Construction costs, both of residential and commercial properties, are far higher throughout Canada's north than in any other region of the country (Conference Board of Canada, 2012). Electricity, an input used in practically every enterprise as well as a necessity for

consumers, is priced far higher in Inuit Nunangat regions, with power in Iqaluit for example being priced more than three times higher than typical rates in Toronto (Globe and Mail, 2015b). These high prices of inputs used in every business drive up the prices for all other goods and services offered in the north, affecting consumers and businesses alike.

ii. Reasons for High Cost of Living and Doing Business

There are a number of reasons for the high cost of living in Inuit Nunangat and the north generally, which are related to its massive, sprawling geography and lack of transportation infrastructure. First and foremost is the need to transport virtually all goods, normally by air, to their final point of sale. Given that very little production occurs in Inuit Nunangat, practically all goods, both intermediate and final, must first make their way north via airplane, often over a multi-stop route, as most flight routes from major Canadian cities stop in Iqaluit or Yellowknife before going on to their final destinations further north (The Globe and Mail, 2015b). Most communities within Inuit Nunangat are very remote, and have little or no transportation infrastructure beyond air travel, meaning that most suppliers do not have the option of transporting their goods via truck, and are therefore forced to utilize air travel, a substantially more expensive form of transportation. Other transportation options include shipping and ice roads. Shipping can take much longer and cause delays in the provision of goods, while ice roads can be incredibly dangerous and are also subject to delays, both of which increase the cost of delivering goods.

The necessity of flying in goods affects both businesses and consumers. For example, input goods, such as diesel or construction materials, which would normally be purchased from the cheapest local source or brought in via existing delivery infrastructure, must instead be flown in, which adds substantial overhead costs to goods and services. In order to stay viable, businesses must adjust their prices upward, thereby increasing the prices of other goods and services through the supply chain. Furthermore, the use of businesses based in southern Canada, which often cannot be avoided due to a lack of local alternatives, adds additional costs to most specialized services, such as technical repairs for buildings.

Additionally, the lack of basic infrastructure, such as water piping and sewage, adds substantial costs to the provision of essential services such as the delivery of water and waste removal. The lack of such infrastructure leads to such services often being delivered in an inefficient manner, such as sewage removal via trucks, which leads to excessive maintenance costs for most northern buildings, and therefore unaffordable rent or ownership for most non-government entities (Impact Economics, 2013).

Finally, one of the key issues relating to the high cost of living in Inuit Nunangat is the lack of competition in most markets, competition that would otherwise have the effect of lowering prices as different businesses attempt to capture a higher market share. The lack of mobility between most northern communities, caused by the high price of air travel and the lack of alternatives such as roads, leads to extremely low levels of competition, but also to a situation in which most northern communities have a single supplier of groceries, a single supplier of energy, and a single supplier for most other categories of essential goods and services (Impact Economics, 2013). The relatively high barriers to entry into such markets leave consumers with

no choice but to accept high prices, and leaves suppliers with no pressure to reduce prices to match rivals.

iii. Economic Implications

There are multiple effects of Inuit Nunangat's high cost of living. Most obviously, it contributes substantially to poverty and the low standards of living experienced by the Inuit by keeping the purchasing power of their incomes low. There are however additional effects.

The high cost of living, among other things, holds potential Inuit businesspeople back from starting their own businesses in two ways. First, it prevents them from accumulating savings that could be used as start-up capital for a business. When the basic staples of life cost as much as they do in the north, it is very difficult to put money aside for future investment. A 2014 ITK report estimated that the cost of a healthy diet alone represented approximately 25-33 per cent of the median Inuit household income across Inuit Nunangat (ITK, 2014), representing a quarter to a third of household income needed for only one essential expenditure category. This is at least double the proportion spent by the average Canadian household, namely 13.6 per cent, a figure which is itself overstated due to its inclusion of spending on food from restaurants (Statistics Canada, 2013). Not only do such high costs for essentials limit the ability of someone to finance their own business venture, but it further limits potential demand for goods and services, as few in the community will have disposable income after financing their everyday needs.

Additionally, the high cost of living raises the start-up costs of businesses dramatically, particularly if it necessitates the renting or purchasing of a physical property, as most businesses do. The costs of renting or ownership, on top of the maintenance and utility bills, make the cost of businesses prohibitive for most Inuit. This is reflected in the rate of self-employment amongst Canadian Inuit – at 3.3 per cent this is lower than for any other Aboriginal group in Canada, and also substantially lower than the Canadian non-Aboriginal self-employment rate of 12 per cent (National Aboriginal Economic Development Board, 2015). The lack of broadly accessible, affordable broadband Internet in most northern communities further contributes to this problem, as it prevents the creation of businesses that primarily serve people over the Internet, and therefore do not necessarily need physical rented space. Although it is also arguable that the Internet could divert demand to businesses in the south.

C. Housing

One of the areas in which there has been a sustained and dire infrastructure deficit in Canada's north, and in Inuit Nunangat specifically, is housing. Despite the fact that the territorial, provincial and federal government have spent billions of dollars building and subsidizing residential housing in the north, there is a definite lack of housing, to the severe detriment of, among other groups, the Inuit. Two central problems of housing, availability and quality, lead to a variety of problems that not only hold back the standards of living in Inuit communities, but also undermine economic development.

i. Current State of Housing

The remoteness of Northern communities, the cost of transporting housing materials, lack of existing infrastructure such as water piping and sewage, the lack of local contractors and building companies, and the cost of working in the cold all lead to housing construction costs in the North that are far higher than those in southern Canada (Conference Board of Canada, 2012). The supply of housing is beset by chronic shortages, lack of affordability, and considerable degradation of the existing housing stock.

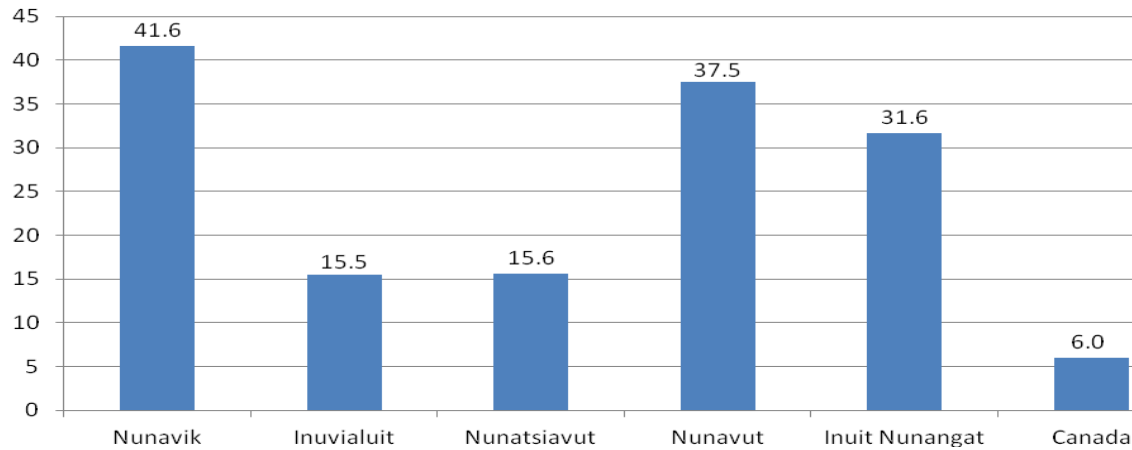
The vast majority of housing demand is met by rental dwellings, which make up about 80 per cent of all residential housing. Most Inuit do not have the incomes or wealth for house ownership. High mortgage payments, repair and maintenance costs, and a lack of any need to own property are further contributing to a noticeable lack of homeownership amongst the Inuit (Conference Board of Canada, 2012). The lack of homeownership frees renters from the associated costs and obligations, but also leads to a lack of benefits derived from the traditional roles homeownership plays in Canadian society, such as a source of equity as well as a store of value.

The supply of rented dwellings is met largely by public housing provision, which in Nunavut for example provides approximately half of the housing stock in Nunavut. The provider of this public housing is the Nunavut Housing Corporation, the funding for which is 12 per cent of the Government of Nunavut's annual budget (2014-15). The other major source of rented housing in Nunavut is staff housing, which is owned and operated by an employer, such as a mine (Nunavut Housing Corporation, 2010). In Nunavik the public housing provider is the Kativik Municipal Housing Bureau, in Nunatsiavut it is the responsibility of the Newfoundland and Labrador Housing Association and the Torngat Regional Housing Association in cooperation with the Government of Nunatsiavut. In Inuvialuit region there is no local Inuit government, leaving responsibility for housing entirely to the Northwest Territories Housing Corporation. In the vast majority of Inuit Nunangat communities there is no broadly-used functioning private housing market, as there is little incentive for private actors to provide housing, given the low incomes and cultural norms surrounding homeownership among the Inuit.

ii. Lack of Housing Availability and Affordability

Residential overcrowding is a very common phenomenon in Inuit communities, where multiple generations, different families, and various relations live together in a single dwelling. This is due in part to the low incomes and wealth of Inuit Canadians, who often cannot afford to rent, let alone own, their own dwellings, leading to chronically overused housing. Chart 29 shows the percentage of private dwellings considered to be 'not suitable' based on the ratio of bedrooms to household size across Inuit Nunangat. A dwelling is considered unsuitable based on a loose criterion of two persons maximum per bedroom, with a number of provisions regulating bedroom needs based on marital status, sex and age of a dwelling's occupants.

The two regions with the largest populations of Inuit people, Nunavut and Nunavik, suffer from overcrowding to a significant degree, with 37.5 and 41.6 per cent respectively of private dwellings considered to be unsuitable housing according to household size. While Inuvialuit region and Nunatsiavut have significantly lower percentages of unsuitable dwellings,

Chart 29: Dwellings designated as ‘Not Suitable’ Housing, Inuit Nunangat by Region, Per Cent

Source: Statistics Canada data, 2011 National Household Survey Aboriginal Population Profile

both regions still have overcrowded residential housing in approximately 1 in every 6 private dwellings. Inuit Nunangat, as a whole and in each component region, has far higher rates of unsuitable housing than does Canada (6.0 per cent). The reasons behind the better housing situation in Inuvialuit region and Nunatsiavut is unclear.

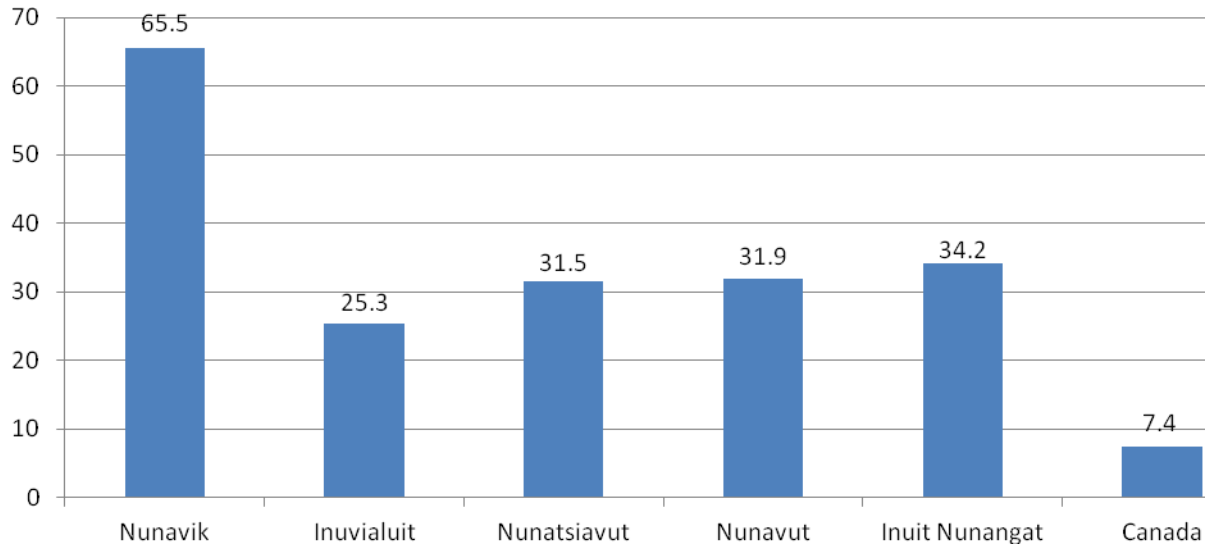
One might argue that multiple generations or multiple families living in one dwelling are associated with Inuit culture, and therefore a choice rather than a problem. This is however not the case: the vast majority of overcrowding is a result of a lack of housing availability and a lack of housing affordability. A 2010 Government of Nunavut Housing Needs Survey found that 10,500 people, split into 3,580 ‘groups,’ desired to move out of their current housing arrangements into their own dwellings, but were constrained from doing so by housing availability. There were 3,780 people in 2013 on the waiting list for public housing, of which only 620 had been waiting for less than one year. A 2012 Nunatsiavut Government Regional Housing Needs Assessment in 2012 arrived at similar results, finding that 52.4 per cent of family units interviewed did not have a dwelling of their own due to affordability issues.

The expensive, unaffordable nature of the current housing stock in Inuit communities is illustrated by Nunavut’s public housing scheme, in which 57.5 per cent of Nunavut’s Inuit population participate. In Nunavut’s public housing program, rent is a proportion of household income. Of those 57.5 per cent living in public housing, 58 per cent pay the monthly minimum rent of \$60, meaning that their household income does not meet the minimum threshold above which the rent would be higher. The number of people renting at the \$60 level has very likely increased since the minimum income threshold was increased substantially in 2013 (Nunavut Housing Corporation, 2013).

iii. Quality of Current Housing Stock

The existing housing stock in Inuit Nunangat suffers from severe degradation. Chart 30 shows the percentage of private dwellings in need of ‘major repairs.’

Chart 30: Dwellings in need of major repairs, Inuit Nunangat by Region, Per cent



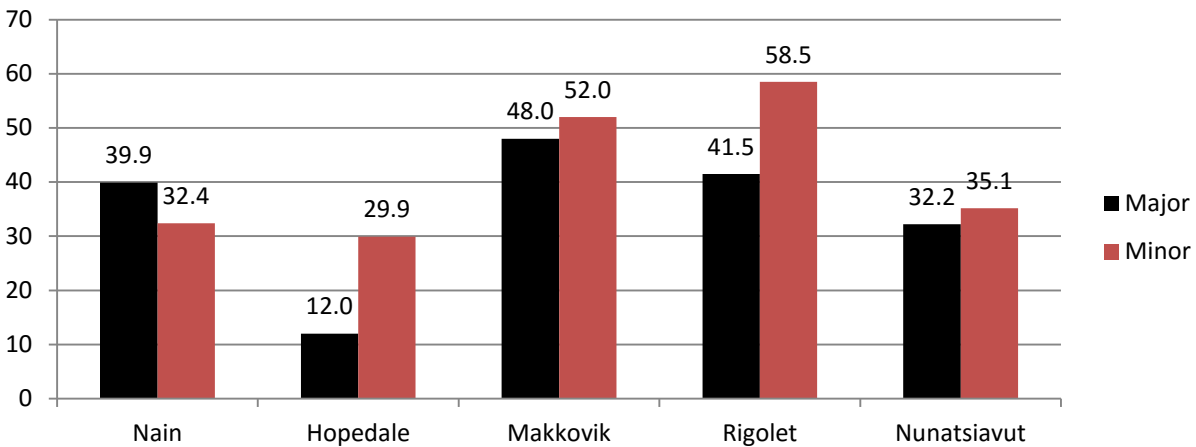
Source: Statistics Canada 2011 National Household Survey Aboriginal Population Profile

Dwellings in need of major repairs include dwellings with defective plumbing or electrical wiring, as well as structural damage to walls, floors or ceilings. These are repairs that, if not undertaken, severely impact the quality of life of those living in the dwelling.

Inuvialuit region, the region with the lowest reported number of private dwellings in need of major repairs still has more than one quarter of private dwellings in need of major repairs: 25.3 per cent. Nunatsiavut and Nunavut have somewhat higher rates, 31.5 per cent and 31.9 per cent respectively, while Nunavik faces the lowest quality of existing housing, with an astonishing 65.5 per cent of private dwellings being reported as needing major repairs. The proportion of dwellings in need of major repairs across Canada (7.4 per cent), is far lower than that in any of Inuit Nunangat's regions. Self-reported information from both the 2010 Nunavut Housing Needs Survey and the 2012 Nunatsiavut Government Regional Housing Needs Assessment confirm that a significant chunk of existing housing is in need of repairs. Chart 31 provides a more recent view of the percentage of private housing in need of minor and major repairs, broken down by region.

As can be seen, major repairs are needed for Nunatsiavut's housing stock across all of its communities, and in all but Nain the need for minor repairs is even greater. Although Hopedale has the lowest proportion of private dwellings in need of major repairs (12.0 per cent), its percentage of dwellings in need of minor repairs is comparable to that of Nain (29.9 per cent and 32.4 per cent respectively), whereas Nain has a far higher proportion of dwellings in need of major repairs (39.9 per cent). Makkovik and Rigolet lead Nunatsiavut in the number of dwellings in need of major repairs (48.0 per cent and 41.5 per cent respectively) and minor repairs (52.0 per cent and 58.5 per cent respectively).

Chart 31: Number of Private Dwellings in Need of Repairs, By Community, Per Cent, Nunatsiavut, 2012



Note: Aggregate figures for Nunatsiavut were calculated by the CSLS based on community weights taken from Appendix Table 1 and do not account for Postville, a small community for which there was no reported data.

Source: Nunatsiavut Government Regional Housing Needs Assessment 2012

iv. Housing and Economic Development

There are several ways in which the current housing situation, both in terms of its quantity, affordability and quality, is hindering economic development in Inuit Nunangat. First, one must consider the social costs related to the need for repairs and overcrowding. Many houses in the North are, for example, contaminated with mould (Government of Nunatsiavut, 2012), which can cause respiratory health problems. Overcrowding can rapidly hasten the spread of infections and other illnesses in the household. Worse health outcomes and higher rates of illness impede development by necessitating higher medical costs as well as by reducing the quality of human capital stock available to employers, who have to deal with employees who are sicker and therefore more often unavailable to work. This applies most notably to family dwellings, as staff housing and accommodations, often found in the mining sector, tend to be of higher quality.

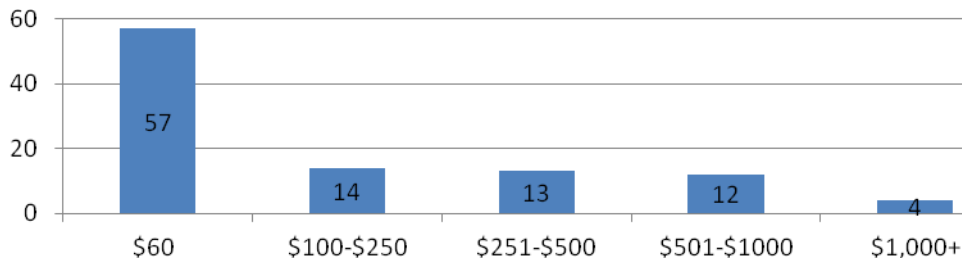
Additionally, overcrowded households do not provide an adequate environment in which to rest or work, both of which are necessary to maintain adequate performance in both the workplace and school. Although the relationship is likely far more complex than a simple correlation, research has linked Aboriginal communities with less overcrowding to higher educational achievement (Sisco, 2012), indicating that there is indeed a relationship between overcrowding and a worse learning environment. One could make the case that causation is more linked to income: higher income communities are less likely to face overcrowding and tend to have better educational outcomes, or alternatively, higher educational outcomes lead to higher incomes and therefore less overcrowding.

The shortages of housing and the long waiting lists are also key brakes on economic development because they impede the mobility of Inuit people. Many Inuit are tied to a particular geographic location or community due to the fact that they have no housing outside of their

circle of family and friends, and are therefore unable to look for work elsewhere or accept job offers in other areas. This is due to the fact that waiting lists for public housing, which are often the only affordable option, are often long and housing requests are not met for many months and sometimes years. Northern businesses have reported facing hiring difficulties in attracting labour to their communities due to this housing shortage (Conference Board of Canada, 2012).

Furthermore, the prevalence of public housing programs in the North, particularly in Nunavut, itself hinders economic development. This is because rents in public housing are determined as a proportion of household income. This means that as income rises, so does the required rent payment, representing something of a welfare trap. The minimum rent payment is \$60, which was the amount paid by 58 per cent of tenants in the public housing program in 2011, as shown in Chart 32.

Chart 32: Monthly Rent Paid by Public Housing Tenants, Nunavut, 2011, per cent of tenants



Source: Impact Economics, 2013

The fact that almost 6 out of 10 recipients in the public housing program fall under the minimum income threshold corresponding to the minimum possible rent indicates that incomes are low among renters, who therefore do not qualify for higher rents that would be determined as a proportion of income. This leads to the development of a significant welfare trap, where increases in household income resulting from accepting a job increase rent costs (Impact Economics, 2013). This causes some people taking part in the public housing program to forgo job offers, especially those jobs that increase income only modestly, such as entry-level positions. This is stacked on top of the similar effects of Nunavut's income support program, which also provides assistance to those under a certain threshold, but is clawed back as income rises.

D. Child Care

In discussions with Inuit and with ITK, the Centre for the Study of Living Standards has learned of two additional barriers to employment and economic development that should be considered in the future: child care and mental health. Child care will be briefly discussed in this section. Mental health is an issue that is discussed in great detail in other ITK research and publications (e.g. ITK, 2014b).

In Inuit Nunangat fees for childcare can range between 7 and 58 per cent of median personal income depending on the location.¹⁴ With an estimated 1,427 children on childcare waiting lists in 2012, it is estimated that at least 15 new childcare centres are needed across Inuit Nunangat to satisfy demand (ITK, 2014). With the economic and social benefits of early childhood development programs including childcare centres, both for the parents and the child, an expansion of this service could give many children, especially those from disadvantaged households, a healthy child development and educational enhancement and provide parents with the ability to participate in the workforce. Furthermore, such comprehensive childcare coverage would also have the benefit of creating further employment opportunities in the childcare sector and in the construction sector while the infrastructure is being developed.

Since the lack of child care programs is clearly identified as a barrier to employment and education, an expansion of the current early learning and childcare programs should be undertaken to improve the current socio-economic outcomes in Inuit Nunangat. This includes ensuring Aboriginal Head Start programs are available in all Inuit communities (currently only 27 of 52 communities have access to these programs) and increasing community based training programs for Inuit early childhood educators and augmenting support for the First Nations and Inuit Child Care Initiative, which despite having expanded from 8 childcare centres in 1995 to 59 today, still fails to meet the demand for childcare programs across Inuit Nunangat.

Section V. Summary and Recommendations

A. Summary of Findings

Based on the findings of the previous sections of this report, a number of conclusions regarding employment and economic development in Inuit Nunangat can be drawn:

- There is, indisputably, a crisis in Inuit labour market outcomes across all four regions of Inuit Nunangat. Labour force participation rates and employment rate are far below Canadian averages, and the unemployment rates in these areas are far higher than in Canada. While Nunavik and Inuvialuit region have slightly improved their employment and labour force participation rates since 1996, Nunatsiavut and Nunavut (the largest Inuit Nunangat region which holds the most sway on overall performance) saw declines.
- Inuit Nunangat's demographics indicate that its population will continue increasing for the next several decades, with tens of thousands of Inuit youth poised to enter the labour market in the coming years.
- The educational attainment profile of Inuit across Inuit Nunangat is in some ways the exact reverse of that of Canada as a whole. Whereas two-thirds of Canadians 15 years and over have some form of post-secondary credentials, two-thirds of Inuit in Inuit Nunangat have no educational diploma whatsoever. High school graduation rates in Inuit Nunangat are estimated to be around 25 per cent among the population of 18 year-olds,

¹⁴ The fees as a per cent of median income were calculated based on 220 days of child care. It is important to note that centres in some communities are only open 9-10 months out of the year and that many households have more than one child in child care at once. When there was a range in fees, the maximum amount was used.

and despite having increased (in Nunavut) in the last few years, there has been no appreciable change in the overall educational attainment profile of the Inuit population since 1996.

- The educational systems within Inuit Nunangat are failing to produce generations of Inuit equipped with the credentials needed to succeed in the modern economy. Systemic changes must be made in order to increase student and parent engagement within the public schooling system, and more efforts must be made outside of the formal years of education so as to provide opportunities for people to further educate themselves and specialize in fields providing employment across Inuit Nunangat.
- Economic growth in Inuit Nunangat will in the next several years be highly dependent on the development of global commodity prices. The mining industry in Inuit Nunangat has the greatest potential of any sector in Inuit Nunangat for fast, large-scale growth that creates thousands of jobs. The specific development of nickel, zinc, gold, uranium, iron, and diamond prices in the near and medium-term will largely determine whether the five existing, producing mines will expand, shrink or stay at the same level, and whether new mines will open. Current commodity price forecasts point toward modest to severe decreases in prices for most of the abovementioned commodities, except for uranium, which is projected to see increases in prices and industry activity.
- Inuit employment across Inuit Nunangat is being held back in many industries due to a lack of skills and credentials among Inuit workers. Specialized tasks that require higher degrees of education, such as senior civil service positions or engineering positions in mines, are being filled by non-Inuit workers who are generally not native to Nunavut. Though low-level positions in Nunavut's public service have seen increases in Inuit employment, there is still great potential within the mining sector and the public sector to increase rates of Inuit employment, assuming suitable candidates for such positions can be found or trained.
- There is potential for innovation and growth across Inuit Nunangat in sectors that incorporate traditional Inuit activities and knowledge, ranging from fishing to local service provision. There are also a substantial number of Inuit artists and craftspeople who, if provided with better infrastructure to connect with potential buyers, could better utilize their skills and generate greater income.
- The high cost of living in Canada's north, caused by its vastness and lack of infrastructure, inhibits self-employment by limiting the opportunities people have to start their own businesses. The high costs of everyday essentials combined with the high start-up costs of a business make business ownership and entrepreneurship a remote possibility for most Inuit.
- The distinct lack of quality, affordable housing in Inuit Nunangat limits the mobility of people looking for employment, as people are often restricted to areas in which there are family members or friends with whom they can reside. Additionally, the structure of public housing systems, utilized by the vast majority of Inuit in Nunavut, is such that

increases in income derived from working can increase rent payments, which incentivizes people not to accept jobs or look for offers of work.

B. Recommendations

The issues addressed in this report are multi-faceted, complex and not given to quick or easy solutions. Nevertheless, these challenges must be met and consequently, this report recommends the following steps be taken in order to ameliorate the employment outlook for Inuit living in Inuit Nunangat and to give the thousands of Inuit youth poised to enter the labour market in the coming years the best chance to profit from and contribute to economic development:

- The most essential step that must be taken is reform of Inuit Nunangat's education systems. In order to ensure that future generations of Inuit are able to access the labour market and economic opportunities one must ensure that the vast majority of them are equipped with the most basic credential, a high school diploma, that not only provides entry-level access to the job market but also acts as a stepping stone to further educational attainment. Schools must be rebuilt to incorporate Inuit culture and language so as to advance a curriculum whose subject matter that is relevant to the lives of its students. Schools must also strive to engage parents, as they are a vital resource in their children's education. The Nunavut Literacy Council (2007) as well as the National Committee on Inuit Education have made comprehensive recommendations regarding the improvement of Inuit education, and these recommendations should be implemented across all four jurisdictions responsible for Inuit education.
- There must be a greater effort to provide Inuit adults who lack educational credentials opportunities to increase their educational attainment or to obtain certification and job skills. The federal ASETs program should be renewed and expanded past 2016, with a specific focus on the jobs and opportunities currently available in Inuit Nunangat. Organizations like the Nunavut Fisheries and Marine Training Consortium, which seeks to qualify Inuit for careers in existing fishing operations, should be supported in their work, both financially and organizationally.
- In order to empower local communities and create a viable economic basis there needs to be a concerted effort to support Inuit small businesses. Constrained by high start-up costs and a lack of technical know-how, the Inuit have the lowest rate of self-employment for any Aboriginal group in Canada. Aiding entrepreneurs by providing start-up loans and other forms assistance is critical to improving these figures.
- Governmental cooperation with employers to ensure a sufficient stock of housing near employment hubs is necessary. Public housing ought to be reformed to ensure that public housing subsidies do not act as a welfare trap, by increasing the minimum income threshold at which one pays minimum rent; making rent increases resulting from higher incomes more gradual; or attempting to stimulate the development of a more robust private housing market. Construction of new housing and repair of existing housing stocks could provide substantial employment opportunities while alleviating the pressures on an undersupplied, overcrowded market.

C. Questions for Future Research

A number of questions arose during the process of researching and writing this report. Further research in these areas could provide additional insights into the future of Inuit Nunangat's employment outlook.

- One of the central paradoxes that came up during the research process was the case of Nunavik, which has the worst educational attainment profile and the worst housing market in Inuit Nunangat, but at the same time enjoys markedly better labour market outcomes than any other region. The only difference between Nunavik and the other Inuit Nunangat regions uncovered in this report that could account for this anomaly is the size of its health care and social assistance labour force, which is far larger in absolute and relative terms compared to the other Inuit Nunangat regions. Further research on Nunavik's labour market could distinguish whether the better labour market outcomes are driven by better labour policy that encourages training and skills that help people find employment or whether it is driven by better economic performance in the region, increasing the number of jobs available.
- A more in-depth analysis of Nunavut's public school system could help uncover what factors or reforms have been driving the increased graduation rates among males and subsequent convergence of male and female graduation rates. A comprehensive review of best practices among improving schools could be used as a model across Inuit Nunangat to bring up graduation rates.
- Further research into the scale and nature of Inuit Nunangat's informal economy, particularly examining areas such as hunting, fishing and the arts, could contribute to a better holistic understanding of Inuit Nunangat's economy. Understanding how many people take part in such activities and how much is produced outside of the scope of the official economy will help policymakers design better policies that work in tandem with traditional Inuit knowledge and activities.
- Migration out of Inuit Nunangat has been increasing in recent years, with the Inuit population living outside of Inuit Nunangat having increased by almost 50 per cent between 2006 and 2011. A review of the scope, source of, composition, and motivations for this migration could contribute to a better understanding of the demographic and labour market challenges faced by Inuit Nunangat.
- Finally, it would be interesting to investigate the apparent exclusion of Voisey's Bay from certain statistics and the impact of this exclusion on the perceived well-being of Inuit in Nunatsiavut.

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Appendix

Appendix Chart 1: Map of Inuit Nunangat by Region and Community



Source: Aboriginal Affairs and Northern Development Canada: <https://www.aadnc-aandc.gc.ca/Map/irs/mp/mp-eng.asp>

Appendix Table 1: Inuit Population by Region, Inuit Nunangat, 2011

Inuit Nunangat Region	Community	Community Size	Inuit Population	Inuit % of Total	First Nations/Metis Presence	Non-Aboriginal Presence
Inuit Nunangat	Inuit Nunangat	52,115	43,715	83.8	2,635	15,850
<i>Inuvialuit region</i>	<i>Inuvialuit region</i>	<i>5,745</i>	<i>3,475</i>	<i>60.5</i>	<i>1,455</i>	<i>2,015</i>
	Inuvik	3,655	1,675	45.8	1,230	1,765
	Ulukhaktok	415	385	92.8	0	35
	Sachs Harbour	n.a.	n.a.		n.a.	n.a.
	Tuktoyaktuk	825	755	91.5	25	85
	Aklavik	405	265	65.4	160	70
	Paulatuk	330	295	89.4	0	30
<i>Nunatsiavut</i>	<i>Nunatsiavut</i>	<i>2,615</i>	<i>2,310</i>	<i>88.3</i>	<i>90</i>	<i>600</i>
	Nain	1,185	1,065	89.9	50	245
	Hopedale	555	500	90.1	0	85
	Postville	n.a.	n.a.		n.a.	n.a.
	Makkovik	360	310	86.1	10	140
	Rigolet	305	260	85.2	10	100
<i>Nunavik</i>	<i>Nunavik</i>	<i>12,055</i>	<i>10,855</i>	<i>90.0</i>	<i>455</i>	<i>3,160</i>
	Kuujuaq	2,350	1,765	75.1	170	1,470
	Killiniq	n.a.	n.a.		n.a.	n.a.
	Kangiqsualujuaq	865	805	93.1	40	185
	Kuujuaaraapik	655	585	89.3	125	165
	Umiujaq	470	445	94.7	30	50
	Inukjuaq	1,585	1,520	95.9	15	90
	Tasiujaq	305	280	91.8	0	60
	Kangirsuk	550	520	94.5	0	95
	Aupaluk	n.a.	n.a.		n.a.	n.a.
	Akulivik	615	585	95.1	0	80
	Ivujuvik	370	345	93.2	10	80
	Salluit	1,350	1,275	94.4	0	340
	Kangiqsujuaq	690	645	93.5	0	75
	Qaqtuq	375	350	93.3	10	40
<i>Nunavut</i>	<i>Nunavut</i>	<i>31,700</i>	<i>27,080</i>	<i>85.4</i>	<i>635</i>	<i>8,075</i>
	Grise Fjord	n.a.	n.a.		n.a.	n.a.
	Resolute Bay	945	920	97.4	0	60
	Arctic Bay	825	795	96.4	0	120
	Pond Inlet	1,565	1,490	95.2	10	150
	Clyde River	n.a.	n.a.		n.a.	n.a.
	Qikiqtarjuaq	520	485	93.3	0	75
	Pangnirtung	n.a.	n.a.		n.a.	n.a.
	Iqaluit	6,600	3,890	58.9	310	3,980
	Kimmirut	455	420	92.3	10	170
	Cape Dorset	1,360	1,255	92.3	0	340
	Hall Beach	545	530	97.2	0	65
	Igloolik	n.a.	n.a.		n.a.	n.a.
	Taloyoak	905	865	95.6	10	50
	Kugaaruk	770	750	97.4	0	15
	Repulse Bay	945	920	97.4	0	60
	Coral Harbour	830	790	95.2	0	75
	Cambridge Bay	1,585	1,255	79.2	65	440
	Kugluktuk	1,445	1,310	90.7	45	260
	Sanikiluaq	790	780	98.7	10	30
	Bathurst Inlet	n.a.	n.a.		n.a.	n.a.
	Umingmaktuq	n.a.	n.a.		n.a.	n.a.
	Gjoa Haven	1,275	1,220	95.7	25	185
	Arviat	2,310	2,185	94.6	30	405
	Whale Cove	410	390	95.1	0	65
	Rankin Inlet	2,245	1,810	80.6	30	650
	Baker Lake	1,865	1,730	92.8	45	280
	Chesterfield Inlet	na	na		n.a.	n.a.

Note: Due to the self-reported nature of the data and the possibility of reporting more than one identity, the sum of individual identity groups tends to exceed community size.

Source: Statistics Canada 2011 National Household Survey, Aboriginal Population Profile

Appendix Table 2: Nunavut GDP by North American Industry Classification System, Chained 2007 Dollars, 2004-2014

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
All industries	960.3	1,053.1	1,113.4	1,171.8	1,160.4	1,212.4	1,224.2	1,256.9	1,312.1	1,485.3	1,388.6	1,646.6	1,741.9	1,785.3	1,962.6	2,032.5
Agriculture, forestry, fishing and hunting	1.3	2.2	2.2	3.5	2.7	2.7	2.7	2.2	2.7	2.8	3.7	3	3.2	5.5	5.4	5.5
Mining, quarrying, and oil and gas extraction	203.5	257.3	233.2	148.8	27.5	39.8	16.8	45	50.7	42.3	31.8	185.4	248.6	286.7	333.9	345.2
Utilities	62.4	65.8	72.7	65.5	48	48.8	49.1	48.6	50.4	53.8	45.9	47.4	49.8	50.4	51.1	52.1
Construction	48.4	45.1	47.8	74.8	96	104.1	110.8	105.2	132.7	260	195.7	219.7	186.1	133.6	207.5	285.1
Manufacturing	0.9	1.5	1.6	1.4	1	0.8	1.1	1.7	1.4	1.4	1.2	3.4	2.4	6.8	8.1	8
Wholesale trade	13.5	14.7	15.7	17	19.9	20.5	23.8	27.3	22.9	37	24.3	32.3	32.2	53.8	76.1	35.5
Retail trade	45.7	49.1	49	51.9	54	55	57.7	60.4	62.6	69.6	71.2	72.8	75.2	71.9	73	72.9
Transportation and warehousing	61.5	65	61.7	54.3	48.1	43.4	38.8	41	35.7	39.4	36	42.1	45.3	44.3	44.1	43.6
Information and cultural industries	x	14.9	x	22.2	27.1	25.6	24.6	26.4	26.9	31.1	33.7	34.5	41.5	45.8	46.2	46.2
Finance and insurance	21.6	23.5	25.6	29.8	31.8	31.6	33.6	33.6	33.1	35.5	32.9	34.1	35.1	37.3	39.9	40.6
Real estate and rental and leasing	131.1	140.3	157.6	182.7	191.4	198.5	199.4	203	205.7	205.3	189.7	191.4	202.9	209.2	215.7	221.4
Professional, scientific and technical services	13.1	12.5	17	17.6	13.4	17.7	18.6	17.9	19.9	23.4	30.3	28.7	27.2	27.4	28.2	25.8
Administrative and support, waste management and remediation services	25	25.7	29	33.3	37.6	44.3	38.7	42.4	43	37.6	34.9	39.7	44.3	46.2	46.8	46.8
Educational services	x	110.4	x	123.3	128.4	130.5	129.5	133.7	136.8	143.6	145.3	146	147.5	153.1	154.7	156.8
Health care and social assistance	76.1	64.3	74.3	75.8	78	86.1	92.7	94.5	95.2	98.2	99.6	102	104.8	106.7	109.8	112.6
Arts, entertainment and recreation	x	4.3	x	4.1	3.8	3.4	3.4	3	3	2.8	2.8	2.4	2.2	1.9	2.2	1.9
Accommodation and food services	18.6	18.8	18.7	19.6	23.2	25	21.8	21	21.8	22.2	22.2	22.7	24.7	24.5	24.7	25.2
Other services (except public administration)	13.4	11.3	21.9	26.5	28.7	24.7	22.1	20.3	21.5	22	22	21.2	22	24.5	24.6	25.2
Public administration	216.5	264.8	278	295.8	303.8	317.9	331.3	337.7	338	345.8	355.2	366.8	371.5	369.3	365.9	368.5

Source: Statistics Canada, CANSIM Table 379-0030

Appendix Table 3: Estimates of Population, Employment, and GDP, Inuit Nunangat, Levels and Per Cent Changes, 2006-2021

	2006	...	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Levels													
Population													
Nunatsiavut	---	...	2,697	2,695	2,709	2,712	2,732	2,732	2,732	2,757	2,782	2,807	2,835
Nunavik	---	...	12,216	12,425	12,646	12,767	13,066	13,300	13,536	13,754	13,977	14,202	14,449
Inuvialuit													
region	---	...	5,981	5,938	5,923	5,877	5,983	6,096	6,208	6,279	6,346	6,412	6,487
Nunavut	---	...	34,196	34,729	35,434	36,585	36,971	37,360	37,753	38,325	38,875	39,426	40,038
Employment													
Nunatsiavut	1,115	...	900	839	860	838	818	822	834	843	851	858	865
Nunavik	4,095	...	4,800	4,910	4,998	5,058	5,091	5,184	5,285	5,391	5,487	5,578	5,669
Inuvialuit													
region	---	...	2,355	2,339	2,334	2,298	2,354	2,366	2,401	2,439	2,469	2,496	2,522
Nunavut	10,370	...	10,455	10,614	10,792	11,034	10,915	10,970	11,137	11,320	11,473	11,613	11,751
GDP													
Nunatsiavut	733.6	...	362.6	294.3	323.5	304.9	303.3	305.5	310.3	314.5	317.8	320.8	323.9
Nunavik	366.3	...	403.3	402.2	415.1	434.0	434.6	447.1	459.6	471.8	482.6	493.1	503.7
Inuvialuit													
region	0.0	...	318.2	322.1	334.8	346.9	338.8	352.5	361.8	370.2	375.6	381.2	386.6
Nunavut	1,289.2	...	1,690.4	1,710.0	1,910.3	2,020.9	1,957.2	2,033.4	2,092.3	2,146.8	2,185.8	2,225.4	2,264.8
% Changes													
Population													
Nunatsiavut		...		-0.1	0.5	0.1	0.7	0.0	0.0	0.9	0.9	0.9	1.0
Nunavik		...		1.7	1.8	1.0	2.3	1.8	1.8	1.6	1.6	1.6	1.7
Inuvialuit													
region		...		-0.7	-0.2	-0.8	1.8	1.9	1.8	1.1	1.1	1.0	1.2
Nunavut		...		1.6	2.0	3.2	1.1	1.1	1.1	1.5	1.4	1.4	1.6
Employment													
Nunatsiavut		...		-6.8	2.5	-2.5	-2.4	0.5	1.4	1.2	0.9	0.8	0.8
Nunavik		...		2.3	1.8	1.2	0.6	1.8	1.9	2.0	1.8	1.7	1.6
Inuvialuit													
region		...		-0.7	-0.2	-1.5	2.4	0.5	1.5	1.6	1.2	1.1	1.1
Nunavut		...		1.5	1.7	2.3	-1.1	0.5	1.5	1.6	1.4	1.2	1.2
GDP													
Nunatsiavut		...		-18.8	9.9	-5.8	-0.5	0.7	1.6	1.4	1.0	1.0	0.9
Nunavik		...		-0.3	3.2	4.6	0.1	2.9	2.8	2.7	2.3	2.2	2.2
Inuvialuit													
region		...		1.2	4.0	3.6	-2.3	4.0	2.7	2.3	1.5	1.5	1.4

Nunavut	...	1.2	11.7	5.8	-3.2	3.9	2.9	2.6	1.8	1.8	1.8
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Source: Strategic Projection

Appendix Table 4: Estimates of EPOW, GDP and Productivity by Industry, Inuit Nunangat, Levels and Per Cent Changes, 2006-2021

	Nunatsiavut	Nunavik	Inuvialuit region	Nunavut
	2,697	12,216	5,981	34,196
Total EPOW	900	4,800	2,355	10,455
Agriculture, forestry, fishing, and hunting	0	0	0	10
Mining, oil and gas	140	310	15	365
Utilities	10	55	30	120
Construction	60	75	195	395
Manufacturing	0	10	0	70
Wholesale trade	0	20	35	80
Retail trade	105	375	240	1,265
Transportation, warehousing	20	280	165	645
Information, culture	10	35	25	140
Finance, insurance	0	45	70	330
Professional, scientific, technical services	0	30	55	150
Other business services	10	10	50	160
Education	130	860	275	1,255
Health, social services	135	1,360	315	795
Arts, entertainment, recreation	0	75	50	160
Accommodation, food	55	105	100	460
Other services	15	95	95	240
Government	210	1,060	640	3,815
Total GDP	362.6	403.3	318.2	1,690.4
Agriculture, forestry, fishing, and hunting	0.0	0.0	0.0	3.0
Mining, oil and gas	287.4	67.6	7.2	250.6
Utilities	3.2	24.6	10.4	65.2
Construction	15.7	13.2	30.2	184.4
Manufacturing	0.0	1.0	0.0	3.4
Wholesale trade	0.0	2.4	12.7	32.1
Retail trade	5.0	14.5	22.0	70.1
Transportation, warehousing	2.1	25.1	24.4	44.1
Information, culture	1.9	4.2	5.0	36.5
Finance, insurance	0.0	11.7	41.7	227.3
Professional, scientific, technical services	0.0	1.9	6.0	29.8
Other business services	0.7	0.9	12.1	53.8
Education	12.2	57.3	28.8	150.4
Health, social services	10.5	73.1	37.8	102.7
Arts, entertainment, recreation	0.0	3.3	1.3	2.4
Accommodation, food	1.9	3.1	6.4	23.9
Other services	0.7	3.9	5.2	24.4
Government	21.3	95.5	67.0	386.3
Productivity (\$000s/worker)	403	84	135	162
Agriculture, forestry, fishing, and hunting	0	0	0	300
Mining, oil and gas	2,053	218	483	687
Utilities	324	447	345	543
Construction	261	176	155	467
Manufacturing	0	101	0	49
Wholesale trade	0	118	364	401
Retail trade	47	39	92	55
Transportation, warehousing	105	90	148	68
Information, culture	187	121	202	261
Finance, insurance	0	260	596	689
Professional, scientific, technical services	0	64	110	199
Other business services	73	93	241	336
Education	94	67	105	120
Health, social services	78	54	120	129
Arts, entertainment, recreation	0	43	25	15
Accommodation, food	35	29	64	52
Other services	45	41	55	102
Government	101	90	105	101

Source: Strategic Projection