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CENTRE FOR THE STUDY OF LIVING STANDARDS

# NUNAVIK'S LABOUR MARKET AND EDUCATIONAL ATTAINMENT PARADOX

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# Nunavik's Labour Market and Educational Attainment Paradox

## **Abstract**

Nunavik, the northern Québec region of Inuit Nunangat, had stronger labour market performance than the other three Inuit Nunangat regions between 1996 and 2011. For example, Nunavik's employment rate was 54.1 per cent in 2011, while the aggregate employment rate for Inuit Nunangat excluding Nunavik was only 42.9 per cent. Nunavik enjoyed this higher employment rate despite the fact that its Inuit population had, on average, 0.2 fewer years of schooling than Inuit Nunangat as a whole. In this paper, we examine a number of factors that could explain this paradox. Of all the factors examined, (1) public sector job provision and (2) child care availability and cost appear to have the most important impact on Nunavik's labour market outcomes. First, Nunavik's public sector, representing two-thirds of the experienced labour force, is a more important component of the overall economy than the public sector in the other three Inuit Nunangat regions, where it represents approximately half of the experienced labour force. Second, due to the implementation of the First Nations and Inuit Child Care Initiative and the Québec Government's family policies in the late-1990s, Nunavik has the greatest availability of child care services and the lowest daily child care fee of the four Inuit Nunangat regions. Both the ample supply of child care and the low cost have contributed to large increases in female labour force participation since 1996 (7.4 percentage points).

# Nunavik's Labour Market and Educational Attainment Paradox

# **Executive Summary**

Nunavik had higher employment rates, lower unemployment rates and higher labour force participation rates than the other three Inuit Nunangat regions (Nunavut, Nunatsiavut and the Inuvialuit region) despite the fact that Nunavik had the lowest educational attainment of the four Inuit Nunangat regions in 1996, 2001, 2006 and 2011.

Before investigating the factors behind Nunavik's relatively strong labour market performance, this report reviews data from 1996, 2001, 2006 and 2011 on Inuit employment, unemployment, labour force participation and educational attainment in the four Inuit Nunangat regions.

With respect to employment, this report finds that Nunavik's Inuit employment rate (54.1 per cent) was at least 11 percentage points higher than that in the other three regions in 2011. The lowest Inuit employment rate was 38.6 per cent in Nunatsiavut, followed by the Inuvialuit region at 43.2 per cent and Nunavut at 43.3 per cent. Inuit Nunangat as a whole had an employment rate of 45.6 per cent.

This report also finds that Nunavik's Inuit unemployment rate (16.6 per cent) was much lower than the Inuit unemployment rate in Inuit Nunangat as a whole (22.5 per cent) in 2011. It was also at least 6 percentage points lower than the unemployment rates of any of the other three regions. The highest Inuit unemployment rate was 35.4 per cent in Nunatsiavut, followed by 23.7 per cent in Nunavut and 23.5 per cent in the Inuvialuit region.

From the perspective of Inuit labour force participation, Nunavik's rate (64.8 per cent) was much higher than the rate in Inuit Nunangat as a whole (58.8 per cent) in 2011. Unsurprisingly, it was higher than each of the other three Inuit Nunangat regions: Nunavut (56.6 per cent), the Inuvialuit region (57.0 per cent) and Nunatsiavut (59.7 per cent).

These relatively strong labour market outcomes occurred despite relatively lower educational attainment. In particular, Nunavik's average years of schooling among the Inuit (9.6 years) were slightly below those of Inuit Nunangat as a whole (9.8 years) in 2011. Furthermore, Nunavik was the Inuit Nunangat region with the lowest average, falling slightly behind Nunavut (9.7 years), the Inuvialuit region (10.2 years) and Nunatsiavut (10.5 years). These results derive from Nunavik's extremely high share of the Inuit population with no certificate, diploma or degree (68.8 per cent). This share was slightly higher than that of Inuit Nunangat (66.1 per cent). On a regional basis, the divergences between Nunavik and Nunatsiavut (16.2 percentage points) and Nunavik and the Inuvialuit region (9.1 percentage points) are striking. Nunavut, however, had a similarly high share of the population with no certificate, diploma or degree (67.4 per cent).

As a first step in unpacking Nunavik's labour market-educational attainment paradox, this report shows that neither data quality issues nor the demographic structure of the populations

of each Inuit Nunangat region explains their differences in labour market performance. In particular, global non-response rates show that the risk of inaccuracy in the census subdivisions of the four Inuit Nunangat regions tends to be lower than the risk of inaccuracy in Canada as a whole. We also show that the global non-response rates across regions are not divergent enough to explain any regional differences. Furthermore, adjusting for the age and educational attainment structure of the populations of the four Inuit Nunangat regions does not reduce the gap in labour market performance between Nunavik and the other three Inuit Nunangat regions.

Since statistical issues are not an explanation, this report reviews the evidence for a number of additional potential explanations, including social program funding, employment structure, macroeconomic performance, and barriers to employment. The findings are highlighted below.

This report looks at three types of social program funding: employment training program funding, education program funding, and health care program funding. Nunavik's funding for employment training from the Aboriginal Skills and Employment Training Strategy (ASETS) program over the 2010-2016 period was higher than that received by the Inuvialuit region and Nunavut on a per capita basis. Nunatsiavut, however, had a higher level of per capita employment training funding through this program than Nunavik. Hence, funding for employment training may be able to explain Nunavik's strong labour market performance relative to the Inuvialuit region and Nunavut, but it cannot explain Nunavik's paradox relative to Nunatsiavut.

Nunavik's education program funding per person aged 5 to 19 years was higher than that for Nunatsiavut and Nunavut for the 2012-2013 fiscal year. There were no data for the Inuvialuit region. There are, however, complicated issues of reverse causality in these data. This likely reflects the recognition that educational attainment in Nunavik is weaker than in the rest of Inuit Nunangat, so this certainly cannot fully explain Nunavik's paradoxical labour market outcomes.

Data for Nunatsiavut, Nunavut and Nunavik also suggest that health care services in Nunavik are better funded than in the other Inuit Nunangat regions in per capita terms, implying better quality or easier access. This allows the Inuit in Nunavik to return to work more quickly than the Inuit in other regions, thereby boosting the labour force participation rate at any given time. It is, however, important to note that the linkage between health care funding and labour force participation is fairly weak, so it is unlikely that this can explain much of Nunavik's relatively strong labour market outcomes.

This report also looks at the employment structure in Inuit Nunangat as a potential explanation. Data on the experienced labour force by industry show that Nunavik had a much higher share in public administration, health care and social assistance, and educational services (66.6 per cent) than Nunatsiavut (53.4 per cent), Nunavut (49.8 per cent) and the Inuvialuit region (46.9 per cent). This suggests that the government in Nunavik may be providing more opportunities for the uneducated Inuit in Nunavik than governments in the other three Inuit Nunangat regions. This has likely contributed significantly to Nunavik's strong labour market performance.

Using these data, we also found that the Inuit share of the experienced labour force was higher in Nunavik than in Inuit Nunangat as a whole in 2011 for all twenty two-digit NAICS industries. This suggests that employers in Nunavik may simply be more willing to hire Inuit workers than employers in the other three Inuit Nunangat regions, although it may also simply reflect the fact that Nunavik has a higher share of Inuit in the overall population.

We also examined relative macroeconomic performance as a potential explanatory variable, using GDP per capita growth and employment growth. Our analysis shows that Nunavik saw higher employment growth between 1996 and 2011 than the other three Inuit Nunangat regions. Hence, macroeconomic performance (i.e. the availability of jobs in the overall economy) may have some potential in explaining Nunavik's unique labour market relative to the rest of the Inuit Nunangat regions.

Finally, this report presents evidence regarding regional differences in six commonlycited barriers to employment, namely housing conditions, public housing rent, the cost of living, infrastructure, mental and physical health, and child care.

- Housing conditions: Nunavik had worse housing conditions than the other three Inuit Nunangat regions in 2006 and 2011. Clearly, better housing conditions, which can influence mental and physical health and subsequently labour force participation, cannot explain Nunavik's educational attainment-labour market performance paradox. In fact, Nunavik's poor housing conditions relative to the rest of Inuit Nunangat present an additional paradox.
- **Public housing rent:** Nunavik's public housing rent scale does not carry strong disincentives to employment, while the public housing rent scales in Nunatsiavut, Nunavut and the Inuvialuit region increase as income increases which can discourage employment. Hence, it is possible that public housing rent scales in Nunavik relative to the other three regions are responsible for some of Nunavik's stronger labour market performance.
- Cost of living: high costs of living in Canada's North could be an impediment to labour market participation because a high cost of living can lead to household food insecurity. Often, when households are faced with food insecurity, anxiety, stress and desperation levels can rise, leading to violence, crime, and significant health challenges. These issues can all impact an individual's labour market performance. However, a high cost of living could also encourage higher labour force participation rates among the younger segment of the population as they are more likely to forego education in order to contribute to family income. Nunavik's cost of living in 2007, 2008 and 2009 was nearly identical to the cost of living in Inuit Nunangat as a whole. The price of the revised northern food basket in Nunavik was \$359, while the cost in Inuit Nunangat as a whole was \$356. Hence, even though the cost of living has an ambiguous impact on labour force participation, it is unlikely that it is an important factor in the explanation of Nunavik's relatively strong labour market performance.
- Infrastructure: poor public transportation can limit the number of employment opportunities for the people who do not have access to private transportation, while poorly maintained buildings can create risks and encourage the spread of contagious diseases. Finally, infrastructure gaps can lead to overcrowding of hospitals and child care centres, furthering the chances of illnesses and outbreaks. There are many

different types of infrastructure, but the only data that were available on a regional basis were for child care infrastructure needs (namely, child care centres). The available data, however, suggest that Nunavik has similar infrastructure gaps when compared to the rest of Inuit Nunangat, so this does not seem to explain Nunavik's strong labour market performance relative to the other three Inuit Nunangat regions.

- Mental and physical health: according to many indicators, Nunavik had worse health outcomes than the other three Inuit Nunangat regions in 2012, especially in terms of perceived general health. Hence, this does not explain Nunavik's strong labour market performance relative to the other three Inuit Nunangat regions. Indeed, these data actually present an additional paradox.
- Child care: Nunavik has more child care spaces per child than any of the other three Inuit Nunangat regions and child care costs less in Nunavik than in the other three Inuit Nunangat regions. This is the result of the Quebec Government's family policy of 1997 (and extension in 2000) and the First Nations and Inuit Child Care Initiative of 1995. The result has been an increase in female labour force participation in Nunavik from 57.4 per cent in 1996 to 64.8 per cent in 2011. In comparison, males in Nunavik saw almost no change during this time period (64.5 per cent to 64.9 per cent). Furthermore, females in Nunavut also saw almost no change in labour force participation rates between 1996 and 2011 (from 54.4 per cent to 54.9 per cent) and females in the Inuvialuit region actually saw a decline in their participation rates (58.1 per cent to 54.3 per cent). The only other region to show an increase during this time period was Nunatsiavut, which saw an increase from 52.5 per cent to 58.3 per cent. This is not surprising, and is actually consistent with the argument that child care can explain Nunavik's strong labour market performance, because Nunatsiavut is the only other region with consistently low child care fees. Hence, child care availability and cost is the most convincing and persuasive explanation for Nunavik's strong labour market performance relative to the other three Inuit Nunangat regions despite its poor educational attainment.

After this detailed investigation into a number of different factors, it is possible to conclude that the availability of low-fee child care in Nunavik has had significant impacts on female labour force participation. The link between child care and labour force participation has also been shown to be quite strong in Quebec as a whole. Hence, despite the fact that funding for social programs (like employment training and education), and employment structure might play a part in the explanation, this report argues that the child care policies that were implemented in the late-1990s and, as such, led to both lower costs and increased availability relative to the rest of Inuit Nunangat are the most important factors in explaining Nunavik's relatively strong labour market performance despite its relatively poor educational attainment.

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# Nunavik's Labour Market and Educational Attainment Paradox<sup>1</sup>

## I. Introduction

In response to a request from Inuit Tapiriit Kanatami (ITK) to research trends in economic development, population growth and educational attainment in Inuit Nunangat, the Centre for the Study of Living Standards (CSLS) prepared a report entitled "Creating Opportunity in Inuit Nunangat: The Crisis in Inuit Education and Labour Market Outcomes." This report was presented in a session organized by ITK entitled "Kajusivugut: Inuit Labour Market and Economic Development Forum" at the Northern Lights conference and trade show in Ottawa, Canada, on January 27, 2016.

One major finding from this report was the high employment rate, low unemployment rate, and high labour force participation rate in Nunavik compared to the other three regions of Inuit Nunangat despite the fact that Nunavik had the highest share of the population aged 15 years and over with no educational certificate, diploma or degree in the four Inuit Nunangat regions. This is paradoxical given that education is a key determinant of labour market and economic outcomes.

Given these results, ITK asked the CSLS to investigate why Nunavik is able to have such strong labour market performance relative to the other Inuit Nunangat regions despite having lower educational attainment levels. By investigating this issue, we will be able to point to areas where policies could be developed that would help improve employment outcomes in the other Inuit Nunangat areas.

After this introduction, this report is broken down into four sections. The first section of the report provides an overview of the geography, population, institutional structure and history of Inuit Nunangat.

The second section of the report provides an overview of the labour market and educational attainment outcomes for the Inuit in Nunavik for 1996, 2001, 2006 and 2011. The employment rate, the unemployment rate, the labour force participation rate, and the distribution of the population by highest certificate, diploma or degree are all examined. To provide an appropriate perspective, Nunavik is compared to the average for the Inuit in Inuit Nunangat and to the Inuit in the other three Inuit Nunangat regions. Nunavik's Inuit labour market and educational attainment outcomes are also compared to the outcomes for the total population in Canada, three selected rural non-Inuit northern regions in Canada, and the on-reserve First Nations population. This section also examines the interaction of labour market outcomes and

<sup>&</sup>lt;sup>1</sup> This report was written by Jasmin Thomas under the supervision of Andrew Sharpe. The author and the CSLS would like to thank David Boisvert for providing detailed data from Statistics Canada's three most recent censuses and the 2011 National Household Survey and Inuit Tapiriit Kanatami for financial support, as well as Matthew Calver, Bert Waslander, Solange Loiselle, Sebastien Levesques and Denis Lefebvre for comments. The author would also like to thank Pierre Fortin for providing comments on the paper at the 50<sup>th</sup> Annual Meeting of the Canadian Economics Association at the University of Ottawa in Ottawa, Ontario on June 3, 2016.

educational attainment outcomes to provide a picture of how educational attainment affects labour market performance in Nunavik relative to the other four comparison groups.

The third section of the report attempts to provide explanations for the paradoxical educational attainment and labour market outcomes in Nunavik relative to the rest of Inuit Nunangat. This section is broken down into four subsections.

The first subsection investigates statistical challenges, like high global non-response rates. The second subsection explores funding levels for social programs, such as employment training, health care services and educational services in Nunavik relative to the rest of Inuit Nunangat to determine whether Nunavik has additional funding above and beyond the other three regions. The third subsection discusses the employment structure of Nunavik and the other three Inuit Nunangat regions. The fourth subsection examines Nunavik's macroeconomic performance (i.e. its ability to create jobs) relative to the other three Inuit Nunangat regions. Finally, the fifth subsection discusses whether barriers to employment in Nunavik are lower than those same barriers to employment in the rest of Inuit Nunangat. The most commonly-cited barriers to employment are poor quality housing, exorbitant costs of living, limited infrastructure, high levels of mental and physical health challenges, and child care availability gaps. Each of these barriers to employment is examined as a potential explanation.

The fourth section of the report concludes.

# II. Inuit Nunangat

Inuit Nunangat is the cultural homeland of the Inuit in Canada. It is composed of four areas in the Canadian Arctic and subarctic, including Nunavik in Quebec, Nunatsiavut in Labrador, the Inuvialuit region in the Northwest Territories, and Nunavut.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> For a review of Inuit Nunangat and the four Inuit Nunangat regions, see Li and Smith (2016a), Li and Smith (2016b), Smith and Li (2016a), Smith and Li (2016b) and Arriagada (2016).

Inuit Regions

Region

Sade

Particle

Territory

Region

Territory

Region

Region

Sade

Region

Sade

Region

Sade

Region

Sade

Region

R

Figure 1: Map of the Four Regions of Inuit Nunangat

Source. Statistics Canada

In 2011, there were 52,115 people living in Inuit Nunangat, of which 43,455 were of Inuit identity (Table 1). The total and the Inuit populations of Inuit Nunangat are mostly concentrated in Nunavut (60.8 per cent and 62.3 per cent respectively). Nunavik is the next most populous region with 23.1 per cent of the total population of Inuit Nunangat and 24.7 per cent of the Inuit population of Inuit Nunangat.

Table 1: Total and Inuit Population, Inuit Nunangat, 2011

	Total Population	Inuit Population	Share of Inuit in Total Population	Share of Total Population of Inuit Nunangat	Share of Inuit Population of Inuit Nunangat
Inuit Nunangat	52,115	43,455	83.4	100.0	100.0
Nunatsiavut	2,615	2,325	88.9	5.0	5.4
Nunavik	12,060	10,755	89.2	23.1	24.7
Nunavut	31,700	27,070	85.4	60.8	62.3
Inuvialuit region	5,745	3,305	57.5	11.0	7.6

Source: Special order of data from Statistics Canada based on 2011 NHS.

In Nunatsiavut, Nunavik and Nunavut, the Inuit represent between 85 per cent and 89 per cent of the total population. In the Inuvialuit region, the Inuit represent 57.5 per cent of the total population.

Table 2: Major Settlement Areas, Inuit Population, Inuit Nunangat by Region, 2011

Inuit Nunangat Nunatsiavut Nain Hopedale Postville Makkovik Rigolet Nunavik Kangiqsualujjuaq Kuujjuaq Tasiujaq Aupaluk Kangirsuk Quaqtaq Kangiqsuijuaq Salluit Ivujivik Akulivik Puvirnituq Inukjuak Umiujaq Kuujjuaraapik	59,445 43,455 2,325 1,070 505 185 305 260 10,750 810 1,780 285 175 510 340 640 1,265 350 590 1,560 1,515	100.0  73.1  3.9  1.8  0.8  0.3  0.5  0.4  18.1  1.4  3.0  0.5  0.3  0.9  0.6  1.1  2.1  0.6  1.0  2.6	100.0 100.0 100.0 46.0 21.7 8.0 13.1 11.2 100.0 7.5 16.6 2.7 1.6 4.7 3.2 6.0 11.8 3.3 5.5
Nunatsiavut Nain Hopedale Postville Makkovik Rigolet Nunavik Kangiqsualujjuaq Kuujjuaq Tasiujaq Aupaluk Kangirsuk Quaqtaq Kangiqsujjuaq Salluit Ivujivik Akulivik Puvirnituq Inukjuak Umiujaq Kuujjuaraapik	2,325 1,070 505 185 305 260 10,750 810 1,780 285 175 510 340 640 1,265 350 590 1,560	3.9 1.8 0.8 0.3 0.5 0.4 18.1 1.4 3.0 0.5 0.3 0.9 0.6 1.1 2.1 0.6 1.0	100.0 46.0 21.7 8.0 13.1 11.2 100.0 7.5 16.6 2.7 1.6 4.7 3.2 6.0 11.8 3.3 5.5
Nain Hopedale Postville Makkovik Rigolet  Nunavik  Kangiqsualujjuaq Kuujjuaq Tasiujaq Aupaluk Kangirsuk Quaqtaq Kangiqsujjuaq Salluit Ivujivik Akulivik Puvirnituq Inukjuak Umiujaq Kuujjuaraapik	1,070 505 185 305 260 10,750 810 1,780 285 175 510 340 640 1,265 350 590 1,560	1.8 0.8 0.3 0.5 0.4 18.1 1.4 3.0 0.5 0.3 0.9 0.6 1.1 2.1 0.6 1.0	46.0 21.7 8.0 13.1 11.2 100.0 7.5 16.6 2.7 1.6 4.7 3.2 6.0 11.8 3.3 5.5
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Kangiqsujjuaq Salluit Ivujivik Akulivik Puvirnituq Inukjuak Umiujaq Kuujjuaraapik	640 1,265 350 590 1,560	1.1 2.1 0.6 1.0	6.0 11.8 3.3 5.5
Salluit Ivujivik Akulivik Puvirnituq Inukjuak Umiujaq Kuujjuaraapik	1,265 350 590 1,560	2.1 0.6 1.0	11.8 3.3 5.5
Ivujivik Akulivik Puvirnituq Inukjuak Umiujaq Kuujjuaraapik	350 590 1,560	0.6 1.0	3.3 5.5
Akulivik Puvirnituq Inukjuak Umiujaq Kuujjuaraapik	590 1,560	1.0	5.5
Puvirnituq Inukjuak Umiujaq Kuujjuaraapik	1,560		
Inukjuak Umiujaq Kuujjuaraapik		2.6	
Umiujaq Kuujjuaraapik	1.515		14.5
Kuujjuaraapik		2.5	14.1
• • •	440	0.7	4.1
Nunavut	500	0.8	4.7
	27,070	45.5	100.0
Kimmirut	425	0.7	1.6
Iqaluit	3,905	6.6	14.4
Qikiqtarjuaq	485	0.8	1.8
Pond Inlet	1,495	2.5	5.5
Arctic Bay	790	1.3	2.9
Cape Dorset	1,255	2.1	4.6
Sanikiluaq	785	1.3	2.9
Arviat	2,190	3.7	8.1
Whale Cove	395	0.7	1.5
Rankin Inlet	1,805	3.0	6.7
Baker Lake	1,715	2.9	6.3
Coral Harbour	795	1.3	2.9
Repulse Bay Hall Beach	920	1.5	3.4
	525	0.9	1.9
Kugaaruk	750	1.3	2.8
Taloyoak	870	1.5	3.2
Gjoa Haven	1,220	2.1 2.1	4.5
Cambridge Bay Kugluktuk	1,250 1,315	2.1	4.6 4.9
Resolute Bay	1,313	0.3	0.6
Grise Fiord	115	0.3	0.4
Inuvialuit region	3,310	5.6	100.0
Inuvik	1,570	2.6	47.4
Aklavik	200	0.3	6.0
Tuktoyaktuk	755	1.3	22.8
Paulatuk	733 295	0.5	8.9
Sachs Harbour	293 95	0.3	2.9
Ulukhaktok	385	0.6	11.6

Note: The sum of the populations of the major settlement areas is not equal to total Inuit population of Inuit Nunangat.

Source: 2011 National Household Survey.

In Nunavik, the settlement with the highest share of the Inuit population is Kuujjuaq with 16.6 per cent or 1,780 Inuit. The jurisdiction with the highest share of the Inuit population in Nunavut is Iqaluit with 3,905 Inuit or 14.4 per cent (Table 2). In the Inuvialuit region, Inuvik has the highest share of the Inuit population with 1,570 Inuit or 47.4 per cent. In Nunatsiavut, the jurisdiction with the highest share of the Inuit population is Nain with 1,070 Inuit or 46.0 per cent of the population. Of the four Inuit Nunangat regions, Nunavut and Nunavik are the most dispersed, since less than one-fifth of their Inuit populations are in the main urban centre.

The Inuit have been present in these regions across Canada since between 4,000 and 6,000 years ago. Their lifestyles remained untouched by European influence until the 16<sup>th</sup> century when European whalers and traders began to arrive in the Arctic. Contact between the Inuit and Europeans was relatively limited between the 16th and the 18th centuries, as the first European establishment in the North only occurred in 1771 in Nain. Despite a physical presence, numerous expeditions and the creation of the Northwest Territories, Europeans remained relatively uninvolved in the lives of the Inuit in Canada's North until the 1940s, when the Canadian government recognized the importance of establishing sovereignty over the Arctic (ITK, 2016).

After granting the Inuit the right to vote in 1954, the Canadian government became more involved in the North, spending one decade actively moving Inuit families off of the land and into permanent, centralized settlements. From the mid-1960s to the early-1970s, the Inuit replaced their identification numbers with surnames, elected the first Inuk member of the Northwest Territories council, held the inaugural meeting of the Inuit Tapirisat of Canada, which would later become the ITK, and released the first issue of *Inuit Monthly* (ITK, 2016).

The influence of the Inuit in politics in Canada increased significantly in 1972 with the establishment of the Northern Quebec Inuit Association, a body that represented the "interests of the Inuit of Quebec during negotiations of the James Bay and Northern Quebec Agreement," a landmark modern land claims agreement signed in 1975 (ITK, 2016).

The Inuit of Nunatsiavut and the Inuit in the Baffin region of the Northwest Territories quickly followed suit with the establishment of their own political organizations, the Labrador Inuit Association in 1973 and the Baffin Regional Inuit Association in 1975. Inuit associations in Kivalliq and Kitikmeot were established in 1976 to represent the Inuit of these regions of the Northwest Territories.

With growing interest in mining in Voisey's Bay, the Inuit of Labrador "initiate[d] land claims discussions with the provincial" government of Newfoundland and Labrador and the federal government in 1978, while the Makivik Corporation was created by "an act of the Quebec National Assembly to implement and administer the James Bay Agreement" (ITK, 2016).

In 1980, the Northwest Territories agreed "in principle to the creation of the Nunavut government," while a vote in 1981 showed that over half of the residents of the Northwest Territories were in favour of the creation of Nunavut. After this vote, the Government of Canada also agreed "in principle to a territorial division" (ITK, 2016).

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With the repatriation of the Constitution of Canada in 1982, Aboriginal and treaty rights were affirmed and the Inuit were recognized as one of the three Aboriginal peoples of Canada. Two years after this recognition and affirmation, the Inuvialuit region signed the Inuvialuit Final Land Claim Agreement and nearly ten years later, in 1993, the Nunavut Land Claims Agreement was signed. Six years after the signing of this land claim, the territory of Nunavut came into existence.

With the signing of the Agreement-in-Principle for the Labrador land claims agreement in 2001, the Inuit Tapirisat of Canada (literally Inuit Brotherhood in English) changed its name to Inuit Tapiriit Kanatami (literally Inuit united with Canada in English) to "reflect the organization's success in land claims settlements for all Inuit regions" (ITK, 2016). The Labrador land claim was ratified with the Labrador Final Agreement in 2004. In 2002, the Inuit of Nunavik also signed an Agreement-in-Principle concerning offshore "claims with the Governments of Nunavik, Canada and Quebec" (ITK, 2016). This agreement was officially signed in 2006, extending the coverage of the 1975 James Bay and Northern Quebec Agreement to include "offshore islands, hunting, fishing and trapping rights, and rights to resources development as well as financial compensation" (ITK, 2016). In Newfoundland and Labrador, the Nunatsiavut Government was officially established in 2005.

This overview only provides a glimpse into the complex and unique history of the Inuit in Canada's North. However, it does show that of the four Inuit Nunangat regions, three have successfully obtained some form of self-government for their respective Inuit. In particular, the Nunatsiavut Government and the Kativik Regional Government in Nunavik have independence in administering and delivering many social services to the Inuit in their regions. Furthermore, the Inuit in Nunavut are represented by the Government of the Territory of Nunavut, a public territorial government that legally is not an Inuit government but is representative of the Inuit as they make up more than 80 per cent of the population. The only Inuit Nunangat region without self-government is the Inuvialuit region, but the Inuvialuit region is in the process of concluding a self-government agreement for the Inuvialuit. This first step toward self-government for the Inuvialuit was made in May 2007 when the Governments of Canada and the Northwest Territories and the Inuvialuit Regional Council signed a Process and Schedule Agreement outlining a plan and timeline for the negotiators (IRC, 2013).

### III. Labour Market and Educational Attainment Outcomes in Nunavik

This section reviews labour market and educational attainment outcomes in Nunavik in comparison to the rest of Inuit Nunangat, Canada, other rural northern regions in Canada, and on-reserve First Nations. For labour market outcomes, the employment rate, the unemployment rate and the labour force participation rate are examined. For educational attainment outcomes, this section focuses on the distribution of the population across six educational attainment categories. For comparisons between the total population in Canada and the Inuit populations of Inuit Nunangat, this section presents data for 1996, 2001, 2006 and 2011. For comparisons with the total population of the three selected rural non-Inuit northern regions in Canada and the on-

<sup>&</sup>lt;sup>3</sup>Due to a change in the available educational attainment categories between the 2001 and 2006 census, educational attainment outcomes can only be directly compared for 2006 and 2011.

reserve First Nations population, this section presents data on labour market and educational attainment outcomes for 2011.

# A. Employment Rate

The employment rate is the percentage of the population aged 15 years and over that is employed, whether on a full-time or part-time basis.

## i. Nunavik and Inuit Nunangat

Nunavik had a higher employment rate than Inuit Nunangat as a whole and the other three Inuit Nunangat regions in 1996, 2001, 2006 and 2011. Nunavik's Inuit employment rate also rose by more than that of Inuit Nunangat and any of the other three Inuit Nunangat regions during this time period. By 2011, Nunavik's Inuit employment rate was 54.1 per cent, higher than Inuit Nunangat's Inuit employment rate (45.6 per cent), Nunatsiavut's Inuit employment rate (38.6 per cent) and the Inuit employment rates in Nunavut and the Inuvialuit region (43.3 per cent and 43.2 per cent respectively).

Table 3: Employment Rate, Inuit Nunangat by Region, Inuit Population (15+), Per Cent, 1996-2011

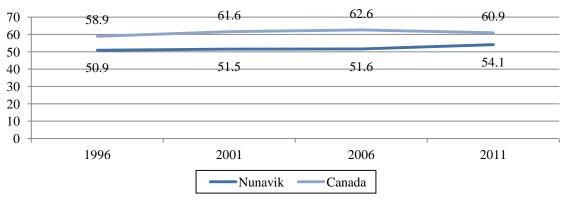
	Nunavik	Nunatsiavut	Nunavut	Inuvialuit Region	Inuit Nunangat	Inuit Nunangat Excluding Nunavik	Nunavik/ Inuit Nunangat
1996	50.9	36.5	46.0	45.8	46.3	45.0	109.94
2001	51.5	35.8	47.4	49.9	47.7	46.5	107.94
2006	51.6	34.6	46.9	46.5	47.1	45.8	109.55
2011	54.1	38.6	43.3	43.2	45.6	42.9	118.64
$\Delta$ 1996-2011	3.2	2.1	-2.7	-2.6	-0.7	-2.1	n/a

Source: Special order of data from Statistics Canada based on the 1996 Census, the 2001 Census, the 2006 Census and the 2011 NHS.

#### ii. Nunavik and Canada

Despite Nunavik's strong Inuit employment rate relative to the other three Inuit Nunangat regions, Nunavik's Inuit employment rate was still lower than Canada's employment rate for the total population in 1996, 2001, 2006 and 2011 (Chart 1). By 2011, however, the gap had shrunk to 6.8 percentage points from 8.0 percentage points in 1996.

Chart 1: Employment Rate, Total Population of Canada (15+) and Inuit Population of Nunavik (15+), Per Cent, 1996-2011

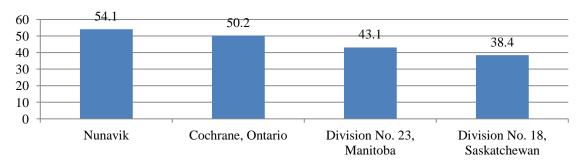


Source: Special order of data from Statistics Canada based on the 1996 Census, the 2001 Census, the 2006 Census and the 2011 NHS.

## iii. Nunavik and Rural Non-Inuit Northern Regions in Canada

Comparing the Inuit employment rate in Nunavik to Canada's overall employment rate is not appropriate because Nunavik is a rural, northern region of Canada and its economy and infrastructure are significantly different from those found in southern Canadian regions. To make a more reasonable and fair comparison, employment rate information for the total population in rural non-Inuit northern regions of Canada has been obtained. The three regions that are focused on in this report are census divisions. To ensure that the choices do not overlap with Inuit Nunangat regions, this report focuses on the northernmost census divisions in Ontario, Manitoba and Saskatchewan, namely Cochrane, Ontario, Division No. 23, Manitoba, and Division No. 18, Saskatchewan, respectively. These regions are meant to be representative of non-Inuit rural and remote northern areas in Canada.

Chart 2: Employment Rate, Inuit Population of Nunavik (15+) and Total Population of Other Rural Northern Regions in Canada (15+), Per Cent, 2011



Source: Special order of data from Statistics Canada based on the 2011 NHS and NHS 2011 Series Number 99-012-X2011055.

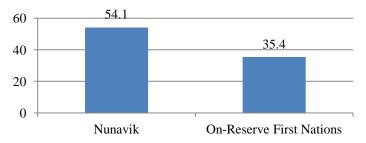
Chart 2 shows the Inuit employment rate in Nunavik compared to the total population employment rate of Cochrane, Ontario, Division No. 23, Manitoba, and Division No. 18, Saskatchewan. Nunavik's Inuit employment rate of 54.1 per cent is considerably higher than the

employment rates of the total population in Division No. 23, Manitoba, and Division No. 18, Saskatchewan. Nunavik's Inuit employment rate is also higher than that of Cochrane, Ontario, but the gap is smaller. Since Cochrane, Ontario is the southernmost census division of the three examined in this report, it is not surprising that it has a higher employment rate than Division No. 23, Manitoba and Division No. 18, Saskatchewan.

#### iv. Nunavik and On-Reserve First Nations

Since individuals of Aboriginal identities in Canada have faced unique challenges throughout their histories, it can also be argued that comparing the Inuit employment rate in Nunavik to that of the total population of Canada or the total population of other rural non-Inuit northern census divisions is not particularly appropriate. Aside from the Inuit, there are two other Aboriginal groups in Canada: the First Nations and the Métis. The First Nations population can also be broken down into the on-reserve population and the off-reserve population. In this report, the on-reserve First Nations population was chosen as the Aboriginal comparison group because reserves are largely found in rural and remote locations. In contrast, the off-reserve First Nations population and the Métis are more likely to be found in urban locations, which means that these groups face entirely different social and economic circumstances than their on-reserve and Inuit counterparts. Therefore, Chart 3 compares the Inuit employment rate in Nunavik (54.1 per cent) to the on-reserve First Nations employment rate in Canada (35.4 per cent). This is an astounding gap. Further research on the drivers behind the gap between the Inuit and the on-reserve First Nations population should be pursued.

Chart 3: Employment Rate, Inuit Population of Nunavik (15+) and Total On-Reserve First Nations Population (15+), Per Cent, 2011



Source: Special order of data from Statistics Canada based on the 2011 NHS and NHS 2011 Series Number 99-012-X2011044.

# **B.** Unemployment Rate

The unemployment rate is the per cent of the labour force that is unemployed. The labour force consists of those who are employed and those who are unemployed.

# i. Nunavik and Inuit Nunangat

Table 4 clearly shows that Nunavik's Inuit unemployment rate (16.6 per cent in 2011) was much lower than the Inuit unemployment rate in Inuit Nunangat as a whole (22.5 per cent). In 1996, 2001, and 2006, Nunavik's Inuit unemployment rate was lower than those in

Nunatsiavut and the Inuvialuit region. The only region that experienced a lower unemployment rate than Nunavik in this four-year sample was Nunavut in 2006.<sup>4</sup>

Table 4: Unemployment Rate, Inuit Nunangat by Region, Inuit Population (15+), Per Cent, 1996-2011

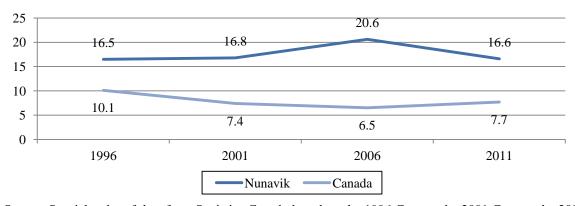
	Nunavik	Nunatsiavut	Nunavut	Inuvialuit Region	Inuit Nunangat	Inuit Nunangat Excluding Nunavik	Nunavik/Inui t Nunangat
1996	16.5	31.9	21.3	24.0	21.1	22.5	78.20
2001	16.8	36.0	23.1	19.9	22.2	23.8	75.68
2006	20.6	34.1	20.4	25.6	21.7	22.1	94.93
2011	16.6	35.4	23.7	23.5	22.5	24.7	73.78
$\Delta$ 1996-2011	0.1	3.5	2.4	-0.5	1.4	2.2	n/a

Source: Special order of data from Statistics Canada based on the 1996 Census, the 2001 Census, the 2006 Census and the 2011 NHS.

#### ii. Nunavik and Canada

Nunavik's Inuit population had an extremely high unemployment rate relative to that of the total population of Canada in 2011 (16.6 per cent versus 7.7 per cent). The same is true for earlier years.

Chart 4: Unemployment Rate, Total Population of Canada (15+) and Inuit Population of Nunavik (15+), Per Cent, 1996-2011



Source: Special order of data from Statistics Canada based on the 1996 Census, the 2001 Census, the 2006 Census and the 2011 NHS.

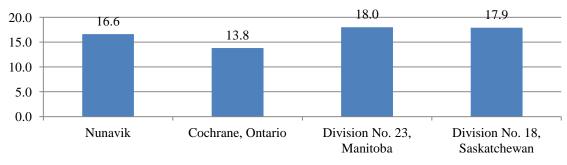
# iii. Nunavik and Rural Non-Inuit Northern Regions in Canada

A comparison between Nunavik and the three selected non-Inuit rural regions of Canada shows that Nunavik's Inuit unemployment performance was average in 2011. In particular, Nunavik's Inuit unemployment rate was lower than the unemployment rates for the total

<sup>&</sup>lt;sup>4</sup> It is unclear what happened to cause a 4 percentage point increase in Nunavik's unemployment rate between 2001 and 2006 and then a 4 percentage points decline between 2006 and 2011.

population in Division No. 23, Manitoba (18.0 per cent) and Division No. 18, Saskatchewan (17.9 per cent). However, Cochrane, Ontario's unemployment rate was lower than Nunavik's Inuit unemployment rate (13.8 per cent versus 16.6 per cent). This is likely because Cochrane, Ontario is further south and thereby much closer to major population centres than Nunavik, Division No. 23, Manitoba and Division No. 18, Saskatchewan. In addition, Cochrane, Ontario likely has a much higher non-Aboriginal share in the total population than the other three regions, and non-Aboriginal individuals are less likely to be unemployed than Aboriginal individuals.

Chart 5: Unemployment Rate, Inuit Population of Nunavik (15+) and Total Population of Other Rural Northern Regions in Canada (15+), Per Cent, 2011

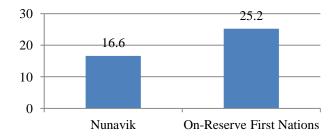


Source: Special order of data from Statistics Canada based on the 2011 NHS and NHS 2011 Series Number 99-012-X2011055.

#### iv. Nunavik and On-Reserve First Nations

Relative to the on-reserve First Nations population, the Inuit unemployment rate in Nunavik is quite low (16.6 per cent versus 25.2 per cent in 2011).

Chart 6: Unemployment Rate, Inuit Population of Nunavik (15+) and Total On-Reserve First Nations Population (15+), Per Cent, 2011



Source: Special order of data from Statistics Canada based on the 2011 NHS and NHS 2011 Series Number 99-012-X2011044.

# C. Labour Force Participation Rate

The labour force participation rate is closely linked to the employment rate and the unemployment rate since it is defined as the per cent of the population aged 15 years and over that is either employed or unemployed.

## i. Nunavik and Inuit Nunangat

Nunavik's Inuit labour force participation rate in 2011 (64.8 per cent) was much higher than the Inuit labour force participation rate in Inuit Nunangat as a whole (58.8 per cent) and in any of the other three Inuit Nunangat regions. For example, Nunavik's labour force participation rate among the Inuit was 5.1 percentage points higher than the next highest labour force participation rate in Inuit Nunangat (Nunatsiavut at 59.7 per cent). In 1996, 2001, and 2006, Nunavik had a higher Inuit labour force participation rate than both Nunatsiavut and Nunavut. The Inuvialuit region is the only area of Inuit Nunangat that showed a higher Inuit labour force participation rate than Nunavik during any of these three years (62.6 per cent in 2001). It is interesting to note that Nunavik's labour force participation rate increased by 3.9 percentage points between 1996 and 2011, while the labour force participation rate for Inuit Nunangat excluding Nunavik fell by 1.2 percentage points.

Table 5: Labour Force Participation Rate, Inuit Nunangat by Region, Inuit Population (15+), Per Cent, 1996-2011

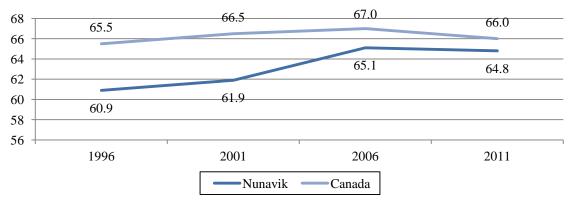
	Nunavik	Nunatsiavut	Nunavut	Inuvialuit Region	Inuit Nunangat	Inuit Nunangat Excluding Nunavik	Nunavik/Inuit Nunangat
1996	60.9	53.0	58.4	59.9	58.7	58.1	103.75
2001	61.9	55.9	61.6	62.6	61.3	61.1	100.98
2006	65.1	53.0	58.8	62.5	60.2	58.7	108.14
2011	64.8	59.7	56.6	57.0	58.8	56.9	110.20
$\Delta$ 1996-2011	3.9	6.7	-1.8	-2.9	0.1	-1.2	n/a

Source: Special order of data from Statistics Canada based on the 1996 Census, the 2001 Census, the 2006 Census and the 2011 NHS.

#### ii. Nunavik and Canada

Nunavik's Inuit labour force participation rate in 2011 was only 1.2 percentage points less than the labour force participation rate of the total population in Canada, a large improvement from 4.6 percentage points in 1996. This is the result of relatively fast growth in the Inuit labour force participation rate in Nunavik since 1996 and virtual stagnation in the labour force participation rate of the total population in Canada since 1996 (only a 0.5 percentage point increase by 2011).

Chart 7: Labour Force Participation Rate, Total Population of Canada (15+) and Inuit Population of Nunavik (15+), Per Cent, 1996-2011

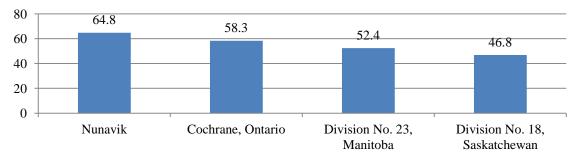


Source: Special order of data from Statistics Canada based on the 1996 Census, the 2001 Census, the 2006 Census and the 2011 NHS.

## iii. Nunavik and Rural Non-Inuit Northern Regions in Canada

Nunavik's Inuit labour force participation rate in 2011 was extremely high compared to the labour force participation rates of the three selected rural non-Inuit northern census divisions in Ontario, Manitoba and Saskatchewan. Cochrane, Ontario had the highest total population labour force participation rate of the three census divisions, but it was still 6.5 percentage points below the labour force participation rate of the Inuit in Nunavik.

Chart 8: Labour Force Participation Rate, Inuit Population of Nunavik (15+) and Total Population of Other Rural Northern Regions in Canada (15+), Per Cent, 2011

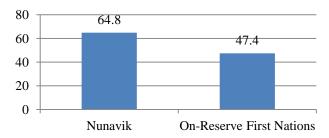


Source: Special order of data from Statistics Canada based on the 2011 NHS and NHS 2011 Series Number 99-012-X2011055.

#### iv. Nunavik and On-Reserve First Nations

Nunavik's Inuit labour force participation rate is 17.4 percentage points higher than the labour force participation rate among the on-reserve First Nations population. This is a very large gap.

Chart 9: Labour Force Participation Rate, Inuit Population of Nunavik (15+) and Total On-Reserve First Nations Population (15+), Per Cent, 2011



Source: Special order of data from Statistics Canada based on the 2011 NHS and NHS 2011 Series Number 99-012-X2011044.

## D. Educational Attainment Outcomes

The six levels of educational attainment that are considered include (1) no certificate, diploma or degree, (2) high school diploma or degree, (3) apprenticeship or trades certificate or diploma, (4) college, CEGEP or other non-university certificate or diploma, (5) university certificate or diploma below bachelor level, and (6) university certificate, diploma or degree at bachelor level or above. The focus in this section will be on the share of the population aged 15 years and over that has attained each level of educational attainment as their highest certificate, diploma or degree.

# i. Nunavik and Inuit Nunangat

In 2011, the share of the Inuit population in Nunavik with no certificate, diploma or degree was 68.8 per cent versus 66.1 per cent in Inuit Nunangat, representing a 2.7 percentage point gap. In addition, relative to the other three Inuit Nunangat regions, Nunavik had the highest share of the Inuit population with no educational certificate, diploma or degree. Nunavut had the next highest share at 67.4 per cent. Nunavik's educational attainment was also quite poor in 2006, although in Nunavut a slightly higher share of the Inuit population had no educational certificate, diploma or degree. Data for 1996 and 2001 also show that of the four regions in Inuit Nunangat, Nunavik also had the highest share of the population with less than a high school diploma.

It is interesting to note that between 2006 and 2011, the share of the Inuit population (15+) in Nunavik with a university certificate fell from 2.5 per cent to 1.9 per cent. This was driven by both an increase in the total population and a decrease in the number of Inuit with a university certificate. In particular, there were 5,815 Inuit aged 15 years and over in 2006 of which 145 had a university certificate. By 2011, there were 6,780 Inuit aged 15 years and over of which only 130 had a university certificate.

It is important to note, however, that with such small sample sizes, small changes over time and small differences between regions could be due to sample variation and may not actually represent real differences or real changes in the underlying population.

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Table 6: Highest Certificate, Diploma or Degree, Inuit Nunangat by Region, Inuit Population (15+), Per Cent, 2006 and 2011

	Nuna	ıvik	Nunats	iavut	Nuna	vut	Inuvialuit	Region	Inuit Nu	ınangat	Inuit Nu Exclu Nuna	ding
<del>-</del>	2006	2011	2006	2011	2006	2011	2006	2011	2006	2011	2006	2011
(1) No certificate, diploma or degree	68.1	68.8	53.0	52.6	69.3	67.4	62.7	59.7	67.4	66.1	67.2	65.3
(2) High school diploma or equivalent	10.7	14.5	17.1	22.9	9.4	12.5	13.2	17.0	10.6	14.0	10.5	13.8
(3) Apprenticeship or trades certificate or diploma	14.6	11.7	11.7	9.4	6.7	7.8	7.9	8.2	9.0	8.9	7.3	8.0
(4) College, CEGEP or other non-university certificate or diploma	4.0	3.0	13.0	10.6	12.0	10.5	14.6	12.6	10.4	8.9	12.4	10.8
(5) University certificate or diploma below bachelor level	1.3	1.0	3.2	2.3	0.9	0.7	0.9	1.3	1.1	0.9	1.1	0.9
(6) University certificate, diploma or degree at bachelor level or above	1.2	1.0	1.9	2.6	1.7	1.2	1.2	1.7	1.6	1.2	1.7	1.3
Years of Educational Attainment	9.7	9.6	10.5	10.5	9.7	9.7	10.1	10.2	9.8	9.8	9.8	9.9

Source: Special order of data from Statistics Canada based on the 2006 Census and the 2011 NHS.

Furthermore, it is interesting to note that the average years of educational attainment in Nunavik in 2011 (9.6 years) were below those in the other three Inuit Nunangat regions: Nunatsiavut (10.5 years), Nunavut (9.7 years) and the Inuvialuit region (10.2 years). On top of this, years of educational attainment appear to have stagnated, as there has been very little change since 2006.

<sup>&</sup>lt;sup>5</sup> To calculate the average years of educational attainment we multiplied the share of the population with each level of educational attainment by the average number of years required to complete this level of educational attainment. We assumed that individuals with no certificate, diploma or degree have 8 years of education, individuals with a high school diploma or equivalent have 12 years of education, individuals with an apprenticeship or trades certificate or diploma have 14 years of education, individuals with college, CEGEP or other non-university certificate or diploma have 14 years of education, individuals with a university certificate or diploma below the bachelor level have 15 years of education, and individuals with a university certificate, diploma or degree at bachelor level or above have 16 years of educational attainment.

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Nunavik's relatively poor educational attainment is further confirmed by Chart 10, which shows that the share of Inuit individuals aged 15 to 19 years attending school was only 52.2 per cent, significantly below the aggregate 61.6 per cent for Inuit Nunangat. On a regional basis, Nunavik's rate of school attendance was substantially below that of Nunavut (63.4 per cent), Nunatsiavut (74.4 per cent) and the Inuvialuit region (73.1 per cent). This emphasizes that low levels of educational attainment is not just an issue for past generations.

It is also interesting to note that Nunavik's rate of attendance at school for Inuit aged 15 to 19 years fell over the 1996-2011 period from 60.5 per cent to 52.2 per cent. In contrast, the attendance rate in the other three Inuit Nunangat regions increased during this period.

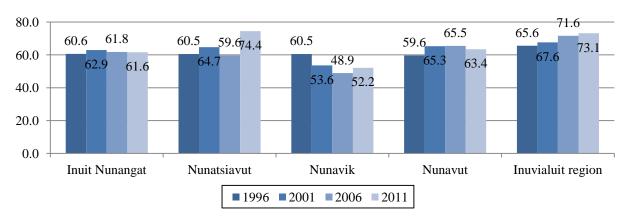


Chart 10: Attendance at School, Share of the Inuit Population (15-19), Inuit Nunangat, 2011

Source: Special order of data from Statistics Canada based on the 2011 NHS.

#### ii. Nunavik and Canada

The share of Nunavik's Inuit population with no educational certificate, diploma or degree stands in stark contrast to that of the total population of Canada in 2011 (68.8 per cent versus 20.1 per cent). Surprisingly, the gap has increased from 44.5 percentage points in 2006 to 48.7 percentage points in 2011. In other words, the share of the Inuit population in Nunavik with no educational certificate, diploma or degree has increased from 68.1 per cent to 68.8 per cent, while the share of the total population of Canada with no educational certificate, diploma or degree has decreased from 23.6 per cent in 2006 to 20.1 per cent in 2011.

<sup>&</sup>lt;sup>6</sup> It is also important to point out that there is very little difference by gender in school attendance rates. In Nunavik, in 2011, 50.0 per cent of Inuit males aged 15 to 19 years were attending school. This compared to 54.3 per cent of Inuit females aged 15 to 19 years. Nunavut and Nunatsiavut also have very similar school attendance rates by gender. The Inuvialuit region is the only region that has much higher female school attendance rates than males. In particular, in 2011, 81.8 per cent of Inuit females aged 15 to 19 years were attending school in the Inuvialuit region, compared to only 64.7 per cent of males of this same group.

Table 7: Highest Certificate, Diploma or Degree, Total Population of Canada (15+) and Inuit Population of Nunavik (15+), Per Cent, 2006 and 2011

	Nunavik		Cana	ıda
	2006	2011	2006	2011
(1) No certificate, diploma or degree	68.1	68.8	23.6	20.1
(2) High school diploma or equivalent	10.7	14.5	25.6	25.6
(3) Apprenticeship or trades certificate or diploma	14.6	11.7	10.9	10.8
(4) College, CEGEP or other non-university certificate or diploma	4.0	3.0	17.3	18.2
(5) University certificate or diploma below bachelor level	1.3	1.0	4.4	4.4
(6) University certificate, diploma or degree at bachelor level or above	1.2	1.0	18.2	20.9
Years of Educational Attainment	9.7	9.6	12.5	12.7

Source: Special order of data from Statistics Canada based on the 2006 Census and the 2011 NHS.

## iii. Nunavik and Rural Non-Inuit Northern Regions in Canada

Nunavik's share of the Inuit population with no certificate, diploma or degree was higher than the share of the total population with no certificate, diploma or degree in the three rural non-Inuit northern census divisions in Canada that were chosen in this report for comparative purposes. However, the biggest difference between Nunavik and the three rural non-Inuit northern census divisions is in the university certificate category. In Cochrane, Ontario (9.8 per cent), Division No. 23, Manitoba (8.3 per cent) and Division No. 18, Saskatchewan (8.8 per cent) there was a substantially higher share of the population with a university certificate than in Nunavik (1.9 per cent).

Table 8: Highest Certificate, Diploma or Degree, Total Population of Other Rural Regions in Canada (15+) and Inuit Population of Nunavik (15+), Per Cent, 2011

	Nunavik	Cochrane, Ontario	Division No. 23, Manitoba	Division No. 18, Saskatchewan
(1) No certificate, diploma or degree	68.8	34.5	60.4	55.0
(2) High school diploma or equivalent	14.5	25.1	14.1	18.7
(3) Apprenticeship or trades certificate or diploma	11.7	12.7	7.4	9.4
(4) College, CEGEP or other non- university certificate or diploma	3.0	17.9	9.9	8.2
(5) University certificate or diploma below bachelor level	1.0	2.8	1.4	2.8
(6) University certificate, diploma or degree at bachelor level or above	1.0	7.0	6.8	6.0
Years of Educational Attainment	9.6	11.6	10.2	10.5

Source: Special order of data from Statistics Canada based on the 2011 NHS and NHS 2011 Series Number 99-012-X2011055.

#### iv. Nunavik and On-Reserve First Nations

Nunavik had a higher share of the Inuit population with no educational certificate, diploma or degree than the on-reserve First Nations population in Canada (68.8 per cent versus 55.9 per cent). For every other level of educational attainment, excluding apprecenticeship or trades certificate or diploma, Nunavik was lower. This is an especially stark illustration of Nunavik's employment-education paradox. Recall that Nunavik's labour market outcomes were far better than those of the on-reserve First Nations population.

Table 9: Highest Certificate, Diploma or Degree, On-Reserve First Nations Population (15+) and Inuit Population of Nunavik (15+), Per Cent, 2011

		On-
		Reserve
		First
	Nunavik	Nations
(1) No certificate, diploma or degree	68.8	55.9
(2) High school diploma or equivalent	14.5	17.9
(3) Apprenticeship or trades certificate or diploma	11.7	9.5
(4) College, CEGEP or other non-university certificate or diploma	3.0	10.9
(5) University certificate or diploma below bachelor level	1.0	2.4
(6) University certificate, diploma or degree at bachelor level or above	1.0	3.3
Years of Educational Attainment	9.6	10.4

Source: Special order of data from Statistics Canada based on the 2011 NHS and NHS 2011 Series Number 99-012-X2011044.

# E. Labour Market Outcomes by Educational Attainment

This section examines how educational attainment affects labour market outcomes by presenting data on the employment rate, the unemployment rate and the labour force participation rate at the detailed educational attainment level. This section compares Nunavik to the rest of Inuit Nunangat, Canada, three selected rural northern regions in Canada, and the on-reserve First Nations population. For brevity, this section focuses only on 2011.

## i. Employment Rate and Educational Attainment

This subsection examines the employment rate across six different educational attainment categories in 2011.

## a. Nunavik and Inuit Nunangat

Nunavik's Inuit employment rate for individuals with no educational certificate, diploma or degree is extremely high (45.9 per cent) when compared to the same rate for Inuit Nunangat as a whole (35.6 per cent), Nunatsiavut (21.7 per cent), Nunavut (33.5 per cent) and the Inuvialuit region (28.8 per cent). For the next four categories of certificates, diplomas or degrees, Nunavik also outperforms its three Inuit Nunangat counterparts. The only category of educational attainment for which Nunavik does not have the highest Inuit employment rate of the four Inuit Nunangat regions is university certificate, diploma or degree at bachelor level or above.

Table 10: Employment Rate by Highest Certificate, Diploma or Degree, Inuit Nunangat by Region, Inuit Population (15+), Per Cent. 2011

	Nunavik	Nunatsiavut	Nunavut	Inuvialuit Region	Inuit Nunangat
(1) No certificate, diploma or degree	45.9	21.7	33.5	28.8	35.6
(2) High school diploma or equivalent	67.5	48.8	57.5	58.0	59.2
(3) Apprenticeship or trades certificate or diploma	73.0	57.6	60.1	61.5	64.1
(4) College, CEGEP or other non- university certificate or diploma	82.9	67.6	69.3	71.7	70.5
(5) University certificate or diploma below bachelor level	92.3	75.0	65.2	66.7	75.5
(6) University certificate, diploma or degree at bachelor level or above	84.6	88.9	90.0	87.5	89.9
Total	54.1	38.6	43.3	43.2	45.6

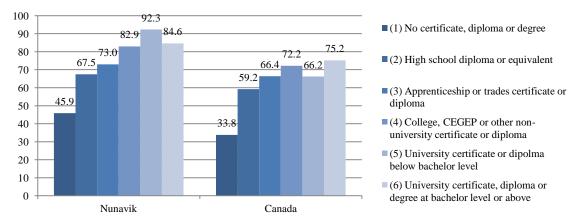
Source: Special order of data from Statistics Canada based on the 2011 NHS.

#### ii. Nunavik and Canada

Nunavik's Inuit employment rate by level of educational attainment is higher than the employment rate by level of educational attainment for the total population in Canada for all six categories of educational attainment. This implies that Canada's aggregate employment rate is only higher than Nunavik's aggregate Inuit employment rate because the two groups have different shares of the population in each educational attainment category (Table 7).

It is important to note, however, that the group of individuals that foregoes additional educational attainment in Nunavik is different than the group of individuals that foregoes additional educational attainment in Canada. In particular, given the likelihood of similar distributions of innate abilities and general intelligence across populations, the individuals in Nunavik with no certificate, diploma or degree are more likely to have a higher ability than those individuals in Canada with no certificate, diploma or degree. This distinction likely exists because obtaining additional educational attainment in Nunavik is much harder than attaining additional educational attainment in Canada due to financial and geographical barriers. This could potentially help explain some of the difference between employment rates in Canada and Nunavik for the lower levels of educational attainment.

Table 11: Employment Rate by Highest Certificate, Diploma or Degree, Total Population of Canada (15+) and Inuit Population in Nunavik (15+), Per Cent, 2011



Source: Special order of data from Statistics Canada based on the 2011 NHS.

#### iii. Nunavik and Rural Non-Inuit Northern Regions in Canada

Nunavik's Inuit employment rate for individuals with no certificate, diploma or degree (45.9 per cent) is also much higher than the same rate for the three rural non-Inuit northern census divisions considered in this report: Cochrane, Ontario (21.7 per cent), Division No. 23, Manitoba (25.6 per cent) and Division No. 18, Saskatchewan (20.9 per cent). For the next four

<sup>&</sup>lt;sup>7</sup> A crude measure of the "return" to additional educational attainment is the resulting increase in the probability of employment. At low education levels, the return appears smaller in Nunavik than in Canada. For example, high school graduation raises the employment rate by 47 per cent in Nunavik and by 75 per cent in Canada. Thus, people in Nunavik may get less education because the marginal benefit is simply lower.

levels of educational attainment, Nunavik's Inuit employment rate continues to be higher than the three rural non-Inuit northern census divisions. For the last level of educational attainment, university certificate, diploma or degree at bachelor level or above, Nunavik's Inuit employment rate is slightly below that of Division No. 18, Saskatchewan (2.9 percentage points).

Table 12: Employment Rate by Highest Certificate, Diploma or Degree, Total Population of Other Rural Regions in Canada (15+) and Inuit Population of Nunavik (15+), Per Cent, 2011

	Nunavik	Cochrane, Ontario	Division No. 23, Manitoba	Division No. 18, Saskatchewan
(1) No certificate, diploma or degree	45.9	21.7	25.6	20.9
(2) High school diploma or equivalent	67.5	52.1	59.7	46.2
(3) Apprenticeship or trades certificate or diploma	73.0	61.5	67.5	56.9
(4) College, CEGEP or other non- university certificate or diploma	82.9	82.4	80.2	69.9
(5) University certificate or diploma below bachelor level	92.3	62.5	81.2	70.0
(6) University certificate, diploma or degree at bachelor level or above	84.6	76.7	74.0	87.5
Total	54.1	50.2	43.1	38.4

Source: Special order of data from Statistics Canada based on the 2011 NHS and NHS 2011 Series Number 99-012-X2011055.

#### iv. Nunavik and On-Reserve First Nations

Nunavik's Inuit employment rate consistently exceeds that of the on-reserve First Nations population in Canada for every level of educational attainment.

Table 13: Employment Rate by Highest Certificate, Diploma or Degree, On-Reserve First Nations Population (15+) and Inuit Population of Nunavik (15+), Per Cent, 2011

		On-
		Reserve
		First
	Nunavik	Nations
(1) No certificate, diploma or degree	45.9	21.9
(2) High school diploma or equivalent	67.5	41.7
(3) Apprenticeship or trades certificate or diploma	73.0	52.1
(4) College, CEGEP or other non-university certificate or diploma	82.9	61.9
(5) University certificate or diploma below bachelor level	92.3	64.5
(6) University certificate, diploma or degree at bachelor level or above	84.6	75.0
Total	54.1	35.4

Source: Special order of data from Statistics Canada based on the 2011 NHS and NHS 2011 Series Number 99-012-X2011044.

## ii. Unemployment Rate and Educational Attainment

This subsection examines the unemployment rate across six different educational attainment categories in 2011.

## i. Nunavik and Inuit Nunangat

The Inuit unemployment rate in Nunavik for individuals with no educational certificate, diploma or degree (19.2 per cent) is much lower than the same rate in Inuit Nunangat (27.1 per cent) and in the other three Inuit Nunangat regions: Nunatsiavut (49.4 per cent), Nunavut (28.7 per cent) and the Inuvialuit region (31.1 per cent) (Table 14). For the next three levels of educational attainment, Nunavik's Inuit unemployment rate is still lower than the other three Inuit Nunangat regions. However, for individuals with a university certificate or diploma below bachelor level or a university certificate, diploma or degree at bachelor level and above, some of the other Inuit Nunangat regions have Inuit unemployment rates that are equally as low as Nunavik's Inuit unemployment rate.

Table 14: Unemployment Rate by Highest Certificate, Diploma or Degree, Inuit Nunangat by Region, Inuit Population (15+), Per Cent, 2011

	Nunavik	Nunatsiavut	Nunavut	Inuvialuit Region	Inuit Nunangat
(1) No certificate, diploma or degree	19.2	49.4	28.7	31.1	27.1
(2) High school diploma or equivalent	13.6	27.3	18.0	20.3	18.1
(3) Apprenticeship or trades certificate or diploma	14.1	37.9	22.6	25.0	21.0
(4) College, CEGEP or other non- university certificate or diploma	8.1	21.9	14.1	10.0	13.7
(5) University certificate or diploma below bachelor level	0.0*	0.0*	21.1	40.0	14.0
(6) University certificate, diploma or degree at bachelor level or above	0.0*	0.0*	5.4	0.0*	3.1
Total	16.6	35.4	23.7	23.5	22.5

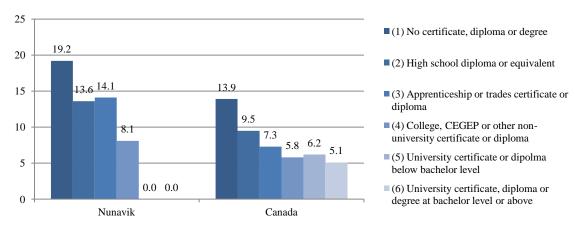
<sup>\*</sup> It is unclear whether the unemployment rate was actually 0.0 for those individuals with a university certificate in Nunavik and Nunatsiavut in 2011. It is possible that this is due to the fact that Statistics Canada rounds all estimates to the nearest 5. It is also possible that this is simply the result of small sample sizes. However, to account for the potential bias of small sample sizes and the risk of non-response, Statistics Canada does oversample at-risk populations, including the Inuit (Statistics Canada, 2015b). Nevertheless, even in a tight labour market, there should be some frictional unemployment. These numbers should be used with caution.

Source: Special order of data from Statistics Canada based on the 2011 NHS.

#### ii. Nunavik and Canada

Unlike the case that arose for the employment rate, the unemployment rate for the Inuit population in Nunavik is higher than the unemployment rate for the total population of Canada for all levels of educational attainment except university certificate or diploma below bachelor level and a university certificate, diploma or degree at bachelor level and above.

Table 15: Unemployment Rate by Highest Certificate, Diploma or Degree, Total Population of Canada (15+) and Inuit Population in Nunavik (15+), Per Cent, 2011



Source: Special order of data from Statistics Canada based on the 2011 NHS.

### iii. Nunavik and Rural Non-Inuit Northern Regions in Canada

When compared to the three rural non-Inuit northern census divisions, Nunavik's Inuit unemployment rate is only lower for the bottom two levels of educational attainment: no certificate, diploma or degree and high school diploma or equivalent. For the other four educational attainment categories, the picture is less clear and Nunavik does not always have the lowest unemployment rate.

Table 16: Unemployment Rate by Highest Certificate, Diploma or Degree, Total Population of Other Rural Regions in Canada (15+) and Inuit Population of Nunavik (15+), Per Cent, 2011

	Nunavik	Cochrane, Ontario	Division No. 23, Manitoba	Division No. 18, Saskatchewan
(1) No certificate, diploma or degree	19.2	36.5	27.8	28.4
(2) High school diploma or equivalent	13.6	13.7	20.2	16.2
(3) Apprenticeship or trades certificate or diploma	14.1	8.2	9.7	20.8
(4) College, CEGEP or other non- university certificate or diploma	8.1	3.8	6.3	7.5
(5) University certificate or diploma below bachelor level	0.0	0.0	0.0	8.3
(6) University certificate, diploma or degree at bachelor level or above	0.0	0.0	5.0	1.9
Total	16.6	13.8	18.0	17.9

Source: Special order of data from Statistics Canada based on the 2011 NHS and NHS 2011 Series Number 99-012-X2011055.

#### iv. Nunavik and On-Reserve First Nations

When compared to the on-reserve First Nations population, Nunavik's Inuit unemployment rate is strikingly low. For example, for those individuals with no certificate, diploma or degree (a very large share of the Inuit population in Nunavik), the unemployment rate is only 19.2 per cent. This compares to 33.2 per cent for the on-reserve First Nations population in Canada. For the other five levels of educational attainment, Nunavik's Inuit unemployment rate is much lower than that observed among the on-reserve First Nations population.

Table 17: Unemployment Rate by Highest Certificate, Diploma or Degree, On-Reserve First Nations Population (15+) and Inuit Population of Nunavik (15+), Per Cent, 2011

		On-
		Reserve
		First
	Nunavik	Nations
(1) No certificate, diploma or degree	19.2	33.2
(2) High school diploma or equivalent	13.6	25.0
(3) Apprenticeship or trades certificate or diploma	14.1	25.1
(4) College, CEGEP or other non-university certificate or diploma	8.1	15.7
(5) University certificate or diploma below bachelor level	0.0	13.6
(6) University certificate, diploma or degree at bachelor level or above	0.0	7.4
Total	16.6	25.2

Source: Special order of data from Statistics Canada based on the 2011 NHS and NHS 2011 Series Number 99-012-X2011044.

# iii. Labour Force Participation Rate and Educational Attainment

This subsection examines the labour force participation rate across six different educational attainment categories in 2011.

### i. Nunavik and Inuit Nunangat

The Inuit labour force participation rate in Nunavik for those individuals with no certificate, diploma or degree at 56.9 per cent is higher than that observed in Inuit Nunangat (48.9 per cent) and in the other three Inuit Nunangat regions: Nunatsiavut (42.9 per cent), Nunavut (47.1 per cent) and the Inuvialuit region (41.8 per cent). For three other educational attainment categories (high school diploma or equivalent, college, CEGEP or other non-university certificate or diploma and university certificate or diploma below the bachelor level), Nunavik's Inuit labour force participation rate is also above that of Nunatsiavut, Nunavut, and the Inuvialuit region. For the third educational attainment category (apprenticeship or trades certificate or diploma) and the sixth educational attainment category (university certificate, diploma or degree at bachelor level or above), Nunavik's Inuit labour force participation rate rate is below that of at least one other Inuit Nunangat region, if not all of the Inuit Nunangat regions.

Table 18: Labour Force Participation Rate by Highest Certificate, Diploma or Degree, Inuit Nunangat by Region, Inuit Population (15+), Per Cent, 2011

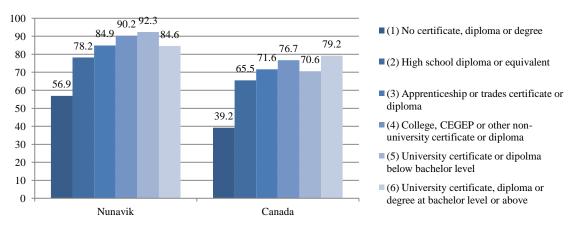
	Nunavik	Nunatsiavut	Nunavut	Inuvialuit Region	Inuit Nunangat
(1) No certificate, diploma or degree	56.9	42.9	47.1	41.8	48.9
(2) High school diploma or equivalent	78.2	68.8	70.1	72.8	72.3
(3) Apprenticeship or trades certificate or diploma	84.9	87.9	77.6	82.1	81.1
(4) College, CEGEP or other non- university certificate or diploma	90.2	86.5	80.3	83.3	81.8
(5) University certificate or diploma below bachelor level	92.3	75.0	82.6	83.3	87.8
(6) University certificate, diploma or degree at bachelor level or above	84.6	88.9	92.5	100.0	92.8
Total	64.8	59.7	56.6	57.0	58.8

Source: Special order of data from Statistics Canada based on the 2011 NHS.

#### ii. Nunavik and Canada

As mentioned earlier, Nunavik's Inuit labour force participation rate at the aggregate level is below the labour force participation rate for the total population of Canada. However, when broken down by educational attainment category, Nunavik's Inuit labour force participation rate is higher than Canada's labour force participation rate for the total population in every educational attainment category. This observation can also be made for the other three Inuit Nunangat regions, but in most cases, the gaps between Nunavik and Canada are larger than the gaps between any of the other three regions in Inuit Nunangat and Canada.

Table 19: Labour Force Participation Rate by Highest Certificate, Diploma or Degree, Total Population of Canada (15+) and Inuit Population in Nunavik (15+), Per Cent, 2011



Source: Special order of data from Statistics Canada based on the 2011 NHS.

It is important to point out that Canada's higher overall labour force participation rate is a result of compositional differences in the underlying populations. In particular, if Nunavik and Canada had the same distribution of the population by educational attainment, Nunavik's labour force participation rate would be higher than Canada's labour force participation rate. However, because Nunavik has a higher share of the population with no certificate, diploma or degree, the overall labour force participation rate is pulled down for Nunavik relative to Canada.

## iii. Nunavik and Rural Non-Inuit Northern Regions in Canada

For five of the six educational attainment categories, Nunavik's Inuit labour force participation rate is higher than that observed in the three rural non-Inuit northern census divisions considered in this report: Cochrane, Ontario, Division No. 23, Manitoba and Division No. 18, Saskatchewan. It is only for individuals with a university certificate, diploma or degree at bachelor level or above that Nunavik's Inuit labour force participate rate falls below the total population labour force participation rate in one of the three rural non-Inuit northern census divisions.

Table 20: Labour Force Participation Rate by Highest Certificate, Diploma or Degree, Total Population of Other Rural Regions in Canada (15+) and Inuit Population of Nunavik (15+), Per Cent, 2011

	Nunavik	Cochrane, Ontario	Division No. 23, Manitoba	Division No. 18, Saskatchewan
(1) No certificate, diploma or degree	56.9	35.3	35.5	29.2
(2) High school diploma or equivalent	78.2	60.9	74.8	55.2
(3) Apprenticeship or trades certificate or diploma	84.9	67.0	74.7	71.6
(4) College, CEGEP or other non- university certificate or diploma	90.2	85.6	85.6	75.3
(5) University certificate or diploma below bachelor level	92.3	58.3	81.2	77.1
(6) University certificate, diploma or degree at bachelor level or above	84.6	76.7	77.9	89.2
Total	64.8	58.3	52.4	46.8

Source: Special order of data from Statistics Canada based on the 2011 NHS and NHS 2011 Series Number 99-012-X2011055.

#### iv. Nunavik and On-Reserve First Nations

Nunavik's Inuit labour force participation rate is higher than that of the on-reserve First Nations population for all six educational attainment categories.

Table 21: Labour Force Participation Rate by Highest Certificate, Diploma or Degree, On-Reserve First Nations Population (15+) and Inuit Population of Nunavik (15+), Per Cent, 2011

		On-
		Reserve
		First
	Nunavik	Nations
(1) No certificate, diploma or degree	56.9	32.7
(2) High school diploma or equivalent	78.2	55.6
(3) Apprenticeship or trades certificate or diploma	84.9	69.6
(4) College, CEGEP or other non-university certificate or diploma	90.2	73.4
(5) University certificate or diploma below bachelor level	92.3	74.8
(6) University certificate, diploma or degree at bachelor level or above	84.6	81.0
Total	64.8	47.4

Source: Special order of data from Statistics Canada based on the 2011 NHS and NHS 2011 Series Number 99-012-X2011044.

# F. Summary of the Data

These results show that the Inuit in Nunavik have been doing well in terms of labour market outcomes compared to the Inuit in the other three Inuit Nunangat regions since 1996, our earliest observation point. Furthermore, these data show that Nunavik's Inuit labour market performance is quite strong relative to the total population in the three selected rural non-Inuit northern regions in Canada and relative to the on-reserve First Nations population in Canada, another highly rural Aboriginal group. Hence, not only are Nunavik's labour force outcomes good relative to the rest of Inuit Nunangat, they are also good relative to other groups in comparable situations.

Nunavik's strong labour market performance, however, stands in stark contrast to its educational attainment outcomes. When compared to the same groups as mentioned above, Nunavik systematically has a higher share of the population with no educational certificate, diploma or degree, even when compared to First Nations on-reserve. This is a surprising, paradoxical result as educational attainment and labour market outcomes are typically highly correlated. This surprising result is even more intriguing after investigating labour market outcomes by educational attainment category, where it was shown that Nunavik's labour market performance far outshines other comparable groups and even the outcomes of the total population of Canada.

It is this educational attainment-labour market outcomes paradox in Nunavik that the rest of this report tries to explain.

<sup>&</sup>lt;sup>8</sup> It is interesting to note that educational attainment and labour market outcomes are positively correlated within Nunavik, but the strength of the positive relationship appears to be weaker in Nunavik than in other places. This leads people in Nunavik to choose lower levels of education (since the cost of being poorly educated is relatively lower), generating the counterintuitive negative education-employment correlation in the cross-section (i.e. across regions).

# IV. Explanations for Nunavik's Strong Labour Market Performance Despite Weak Educational Attainment

This section investigates a number of potential factors that could explain why Nunavik has much stronger labour market performance than the rest of Inuit Nunangat despite its poor educational attainment levels relative to the other three regions.

The first subsection examines statistical issues. For example, the global non-response rate in Nunavik for the 2011 NHS might be higher than that in the other three Inuit Nunangat regions. This subsection also explores the impact of demographics on aggregate labour market outcomes. In the second subsection, this report looks at funding for employment and training programs, health care, and education programs on a per capita basis to determine if Nunavik has a higher level of funding than the other three Inuit Nunangat regions. The third subsection examines data on the employment structure of Nunavik and the rest of Inuit Nunangat to determine whether Nunavik has more employment opportunities in industries that typically require less educational attainment. The fourth subsection reviews overall macroeconomic performance in the four Inuit Nunangat regions. It is possible that Nunavik simply has a stronger economy. Finally, the fifth subsection investigates whether the barriers to employment in Nunavik are lower than those same barriers to employment in the other Inuit Nunangat regions. This subsection focuses on housing, the cost of living, infrastructure, mental and physical health, and child care.

#### A. Statistical Issues

## i. Data Quality

It is arguable that the differences in labour market performance that are observed between Nunavik and the other three regions in Inuit Nunangat are due to small sample sizes, since small sample sizes decrease the reliability of the estimates because of their large coefficients of variation and wide confidence intervals.

Although Statistics Canada does provide information on confidence intervals for a variety of variables from the 2011 NHS, confidence intervals were not provided for the variables used in this report. However, Statistics Canada does provide estimates of the global non-response rate for every census subdivision in Canada. The global non-response rate can be used as an indicator of data quality. It combines complete non-response (household) and partial non-response (question) into a single rate. A smaller value for the global non-response rate indicates a lower risk of non-response bias and as a result, a lower risk of inaccuracy.

<sup>&</sup>lt;sup>9</sup> If the 95 per cent confidence intervals for the four Inuit Nunangat regions do not overlap, then the differences between the four Inuit Nunangat regions are statistically significant. Without data on confidence intervals, it is not possible to confirm whether or not the differences in labour market performance and educational attainment across the four Inuit Nunangat regions are statistically significant. This is certainly an issue that should be explored in more detail if a special order of data, including confidence intervals, is obtainable from Statistics Canada.

Table 22: Global Non-Response Rates, National Household Survey (2011), Canada, Provinces and Territories, Census Divisions and Census Subdivisions

Canada		26.1
Québec Nord de	u-Québec	22.4 22.9
Noru-u	Nunavik	22.5
	Kuujjuaraapik	17.9
	Umiujaq	10.5
	Puvirnituq	6.6
	Inukjuak	8.9
	Akulivik	4.3
	Ivujivik	6.5
	Salluit	3.1
	Kangiqsujjuaq	20.0
	Quaqtaq*	37.0
	Kangirsuk*	27.8
	Aupaluk*	27.4
	Tasiujaq	4.8
	Kuujjuaq*	28.5
N 6 11 1	Kangiqsualujjuaq	4.0
Newfoundland and		31.4
DIVISIO	n No. 11 (Nunatsiavut) Nain	11.5
	Hopedale	13.3
	Makkovik	24.2
	Postville	8.4
	Rigolet	8.3
Nunavut	Tugo.ot	25.2
Baffin		27.2
<b>D</b> 4	Sanikiluaq	18.2
	Igaluit	17.0
	Kimmirut	17.0
	Cape Dorset	17.5
	27.9	
	15.8	
	Arctic Bay*	36.9
	Pond Inlet	24.1
	Resolute	12.0
	Grise Fiord	7.0
Keewat		24.3
	Coral Harbour*	40.1
	Arviat Whale Cove*	15.4 26.4
	Rankin Inlet	13.9
	Baker Lake*	31.2
	Repulse Bay	25.5
Kitikme		20.7
	Kugaaruk	15.0
	Kugluktuk*	37.5
	Cambridge Bay	15.3
	Gjoa Haven	15.6
	Taloyoak	14.4
Northwest Territor		16.1
Region		19.0
	Inuvialuit region	
	Aklavik	25.0
	Inuvik	22.5
	Tuktoyaktuk	7.0
	Paulatuk	6.0
	Sachs Harbour	2.5
	Ulukhaktok that have global non-response rates that	4.0

Note: The census subdivisions that have global non-response rates that are higher than Canada have been market with an asterisk.

Source: NHS 2011 Series Number 99-012-X2011055.

Table 22 lists the census subdivisions that are within Inuit Nunangat and their corresponding global non-response rate. For reference, Canada's global non-response rate (26.1 per cent) is also presented, as are the global non-response rates for the census divisions and the provinces and territories to which the census subdivisions belong. This table shows that most of the census subdivisions within Inuit Nunangat actually have lower global non-response rates than Canada as a whole. For example, Iqaluit, the largest population centre in Inuit Nunangat has a global non-response rate of 17.6 per cent compared to Canada's global non-response rate of 26.1 per cent. This suggests that the degree of reliability in Inuit Nunangat in the 2011 NHS data is greater than in Canada as a whole in most cases. The census subdivisions that have global non-response rates that are higher than Canada have been market with an asterisk. Given that only 10 census subdivisions out of 46 have a higher global non-response rate than Canada, it is extremely unlikely that the data for Inuit Nunangat are presenting an entirely inaccurate picture of the labour market and educational attainment outcomes in these regions.

However, it is important to note that this is not the only data issue that could arise. It is still possible that the observations concerning the four Inuit Nunangat regions are not statistically significant. It is also possible that there are biases across the four regions due to the fact that the global non-response rates for Nunavut, Nunatsiavut, Nunavik and the Inuvialuit region are different from one another. Nevertheless, it is highly unlikely that Nunavik's strong labour market performance and poor educational attainment outcomes relative to the rest of Inuit Nunangat can be entirely explained by data quality issues.

# ii. Demographic and Educational Attainment Structure

Even though there are unlikely to be large data quality issues, another challenge that can arise is the difficulty of comparing aggregate rates of participation, employment and unemployment when the demographic structures of the underlying populations differ. For example, take the oversimplified example where country A and country B have identical participation rates for individuals aged 25 to 44 years (60 per cent) and for individuals aged 45 to 64 years (50 per cent), but that they have different demographic structures. In country A, 80 per cent of the population is aged 25 to 44 years and 20 per cent is aged 45 to 64 years. By definition, no one is any other age. In country B, those shares are 50 per cent and 50 per cent respectively. Simple quick calculations will show that the labour force participation rate in country A is 58 per cent, while it is 55 per cent in country B. This demonstrates that even though there are no underlying differences in the labour force participation rates by age, different demographic structures lead to different labour force participation rates at the aggregate level.

Table 6 shows that the four Inuit Nunangat regions have differing shares of the population by educational attainment, while Table 23 shows that the four Inuit Nunangat regions have slightly differing age structures. It is clear from both of these tables that Nunavik has a younger and less educated population.

Table 23: Age Structure of Working Age Inuit Population, 2011

	Nunavik	Nunatsiavut	Nunavut	Inuvialuit region	Inuit Nunangat	Canada
15-19	16.3	11.2	14.3	11.6	14.2	7.9
20-24	14.1	11.9	13.8	10.5	13.3	7.9
25-34	23.4	21.4	23.6	22.3	23.2	15.8
35-44	19.1	16.2	18.8	17.3	18.5	16.4
45-54	14.2	18.7	15.4	18.4	15.7	19.4
55-64	8.8	12.4	9.4	12.1	9.8	15.9
65-74	3.2	6.2	3.5	5.6	3.9	9.6
75+	1.0	2.0	1.2	2.2	1.4	7.1

Source: Special order of data from Statistics Canada based on the 2011 NHS.

In order to determine to what extent the demographic structures in the four Inuit Nunangat regions are complicating the comparison, we have created hypothetical rates of employment, unemployment and participation for all four regions of Inuit Nunangat based on Nunavik's educational attainment and age structure (separately). The original and hypothetical rates are shown in Table 24.

The labour force participation rate and the employment rate for Inuit Nunangat as a whole are relatively unchanged after the educational attainment and age structure adjustments. However, this masks an interesting distinction at the regional level. In particular, Nunatsiavut demonstrated large declines in its participation and employment rates after adjusting for educational attainment. It also shows a large increase in its unemployment rate after this same adjustment. However, the three labour market performance variables for Nunavut and the Inuvialuit region are relatively unaffected by the educational attainment adjustment, and none of the three variables in any of the three regions are greatly affected by the age adjustment.

Table 24: Original and Hypothetical Rates of Participation, Unemployment and Employment, Inuit Population (15+), Inuit Nunangat, 2011

	Nun	avik	Nunat	siavut	Nun	Nunavut Inuvia		it region	Inuit Nunangat	
	Original	Adjusted	Original	Adjusted	Original	Adjusted	Original	Adjusted	Original	Adjusted
	Using Nunavik's Educational Attainment Structure									
Participation rate	64.8	64.9	59.7	53.8	56.6	55.8	57.0	53.0	58.8	58.7
Unemployment rate	16.6	16.3	35.4	43.1	23.7	25.6	23.5	28.0	22.5	21.9
Employment rate	54.1	53.9	38.6	32.2	43.3	42.0	43.2	39.0	45.6	45.3
					Nunavik's A	ge Structure				
Participation rate	64.8	64.8	59.7	58.0	56.6	56.3	57.0	56.6	58.8	57.9
Unemployment rate	16.6	17.1	35.4	34.5	23.7	24.5	23.5	25.8	22.5	24.3
Employment rate	54.1	54.1	38.6	37.3	43.3	43.1	43.2	42.5	45.6	44.3

Note: due to rounding errors, Nunavik's original and adjusted rates are not exactly identical.

Source: CSLS calculations based on special order of data from Statistics Canada of the 2011 NHS.

Hence, statistical issues, whether regarding data quality or differences in the demographic and educational attainment structure, are unable to explain Nunavik's strong labour market performance despite its low educational attainment relative to the other three Inuit Nunangat regions.

# **B. Social Program Funding**

This section explores the level of funding in Nunavik for employment training and other social programs compared to the three other regions of Inuit Nunangat on a per capita basis. This section shows that Nunavik has access to additional funding above and beyond the other three Inuit Nunangat regions. Since Nunavik is located within Québec, it likely receives additional provincial funding, while the two Inuit Nunangat regions that are located within territories only receive federal funding. As Nunatsiavut is also located within a province, it also likely receives additional funding from the provincial government of Newfoundland and Labrador.

One of the most important employment training and labour market service provision programs for Aboriginal people in Canada is the Aboriginal Skills and Employment Training Strategy (ASETS). Across Canada, there are Aboriginal agreement holders who design and deliver employment services best suited to the needs of the clients in their region. The programs and services available through ASETS include skills development, training for high-demand jobs, job finding, programs for youth, programs for urban and Aboriginal people with disabilities, and access to child care.

Table 25 details the total level of funding received by the ASETS holders in all four Inuit Nunangat regions between 2010 and 2016. It also shows the approximate level of funding per Inuit person. The table clearly shows that Nunatsiavut had the highest level of funding per Inuit person at \$8,578, with Nunavik falling behind at \$6,838 per Inuit person. The other two regions lagged much further behind with Nunavut at a mere \$2,284 per Inuit person and the Inuvialuit region slightly above that level with \$3,623 per Inuit person.

Table 25: Funding Received by ASETS Agreement Holders, Inuit Nunangat by Region, Per Capita, 2010-2016

	Funding	ASETS Holders	Inuit Population (2011)	Approx. Per Capita Level of Funding
Nunatsiavut	\$19,943,246	NunatuKavut     Nunatsiavut Government	2,325	\$8,578
Nunavik	\$73,545,931	Kativik Regional     Government	10,755	\$6,838
Nunavut	\$61,837,675	<ol> <li>Kitikmeot Inuit Association (Kitikmeot Economic Development Commission)</li> <li>Kivalliq Partners in Development</li> <li>Kakivik Association</li> </ol>	27,070	\$2,284
Inuvialuit region	\$11,973,330	Inuvialuit Regional     Corporation	3,305	\$3,623

Source: Employment and Social Development Canada (2016).

Given the varying levels of funding for ASETS holders between 2010 and 2016 and the varying sizes of the Inuit populations in Nunatsiavut, Nunavik, Nunavut and the Inuvialuit region in 2011, it is no surprise that the level of funding per capita is vastly different across the Inuit Nunangat region.

If we expect funding to be a source of the explanation for the phenomenon of strong labour market outcomes despite poor educational attainment in Nunavik relative to the other four Inuit Nunangat regions, we would anticipate that Nunavik has a much higher level of funding per capita for ASETS relative to the other four regions.

The evidence presented above shows that funding for ASETS holders in the various Inuit Nunangat regions could potentially explain why Nunavik has stronger labour market performance than Nunavut and the Inuvialuit region, but funding for ASETS holders does not explain why Nunavik has stronger labour market performance than Nunatsiavut since Nunatsiavut has higher levels of funding for employment training per capita.

ASETS, however, is only one of the Aboriginal labour market programs carried out by Employment and Social Development Canada (ESDC). Another important program is the Skills and Partnership Fund (SPF) which is a "proposal-based program funded at approximately \$50 million annually...[to]...provide job training and skills development to First Nations, Inuit and Métis people so they may fill specific job vacancies in high demand sectors, such as natural resource development" (ESDC, 2016). Between 2011 and 2016, there were a number of SPF agreement holders in the Inuit Nunangat region.

Since most of these SPF agreement holders are not actually directly associated with a region of Inuit Nunangat, it is not exactly clear how to calculate the level of funding per capita. For example, some SPF agreement holders perform operations in a number of Inuit Nunangat regions (e.g. Norterra Inc.), while others only perform operations in a small segment of one particular Inuit Nunangat region (e.g. Municipality of Pangnirtung in Nunavut). The only SPF agreement holder that is directly linked to the administration of an Inuit Nunangat region is the Kativik Regional Government which performs operations for Nunavik.

Despite the lack of a measure of the additional per capita funding that is received through the SPF program in each Inuit Nunangat region, it is clear that the Kativik Regional Government does receive substantial additional funding for training programs above and beyond the other three regional governments in Inuit Nunangat. This could provide some additional strength to the argument that Nunavik's stronger labour market performance relative to Nunavut and the Inuvialuit region is the result of higher levels of funding for employment training. In particular, if the Kativik Regional Government uses the SPF agreement funding for employment training for all Inuit in the region, the level of funding per Inuit person in Nunavik for employment training increases from \$6,838 under the ASETS program alone to \$7,758, only slightly below the level of funding in Nunatsiavut.

Table 26: Funding Received by SPF Agreement Holders, 2011-2016

SPF Agreement Holder	Funding	Years
Labrador Aboriginal Training Partnership	8,022,312	2013-2016
Kativik Regional Government	3,398,372	2012-2015
Kativik Regional Government	6,500,000	2013-2016
Nunavut Fisheries Training Consortium	2,466,055	2012-2014
Kivalliq Mine Training Society	7,025,000	2013-2016
Municipality of Pangnirtung	193,903	2012-2014
Norterra Inc.	952,862	2011-2014
Arctic Co-operatives Ltd.	3,698,086	2012-2015
Mine Training Society	7,577,464	2013-2016

Source: Employment and Social Development Canada (2016).

Despite all of this evidence, it is unlikely that funding for employment training programs can explain the entirety of why Nunavik has stronger labour market performance than all three Inuit Nunangat regions, so other areas of funding are examined below.

Another area of funding that may be able to explain Nunavik's stronger labour market performance relative to the other three Inuit Nunangat regions is health care. In particular, if other regions of Inuit Nunangat spend less on a per capita basis than Nunavik on health care services, then their Inuit populations who are ill may not be able to access the health care services they need to return to work and participate in the labour market.

Unfortunately, the Government of the Northwest Territories does not provide information on the amount of funding that is allocated specifically to health care in the Inuvialuit region, so it is not possible to compare this region to Nunavik directly. However, Nunavik and Nunatsiavut have agreements with the federal government and their respective provincial governments, allowing for the provision of health care services through their particular regional governments. In addition, the Government of Nunavut provides health care to the Nunavut region of Inuit Nunangat. Since these three regional governments only provide services to their respective Inuit Nunangat regions, it is possible to calculate per capita health spending.

For example, according to the Nunatsiavut Government, the Department of Health and Social Development had a budget of \$19,409,213 in 2012-2013 (Nunatsiavut Government, 2012). This is \$7,422 per capita in Nunatsiavut.

Moreover, according to the Gouvernement du Québec, Inuit health care expenditures amounted to \$169.2 million in 2012-2013 (Gouvernement du Québec, 2013) or \$15,732 per Inuit person in Nunavik. This is further confirmed by the Nunavik Regional Board of Health and Social Services, the organization responsible for delivering health care services in Nunavik, which states that it manages a budget of nearly \$157 million or \$13,018 per capita in Nunavik (Perspective Nunavik, 2013).

Finally, according to the 2012-2013 budget of the Government of Nunavut, \$317 million was allocated to the Department of Health and Social Services (Ministry of Finance, Government of Nunavut, 2012). This amounted to \$10,000 per capita.

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Hence, the above results provide some support for the argument that health care services in Nunavik are better funded than in the other Inuit Nunangat regions, suggesting either better quality or easier access, thereby allowing the Inuit in Nunavik to return to work more quickly than Inuit in other regions and subsequently boosting the labour force participation rate at any given time. The actual usage of health care and health outcomes are discussed in a few subsections.

Funding for education in these three regions also shows that Nunavik has more funding per person aged 5 to 19 years than both Nunatsiavut and Nunavut. In particular, in the 2012-2013 fiscal year, the Kativik School Board in Nunavik received \$108,259,392 from the Gouvernement du Québec (Gouvernement du Québec, 2013). This is \$27,407 per person aged 5 to 19 years. During this same fiscal year, Nunavut had a budget of \$171 million for its K-12 education programming or \$18,000 per person aged 5 to 19 years (Government of Canada, 2013). Finally, Nunatsiavut, with a much smaller population, had a budget of \$8,311,320 for its Department of Education and Economic Development. This amounted to only \$14,087 per person aged 5 to 19 years (Nunatsiavut Government, 2012). It is interesting to note that Nunavik has much higher levels of funding despite also having the lowest levels of educational attainment and the lowest enrollment rate.

Funding is also made available to the Inuit Nunangat regions for a number of other program areas, including social housing, cost of living reductions, and crime prevention. For example, in 2015, a crime prevention fund in Nunavik handed out \$11 million to projects across the region (Rogers, 2015a). This is approximately \$912 per capita in Nunavik. From 2008 to 2010, Nunavik also received \$135 million for the replacement, improvement and modernization of existing social housing in the region (Parnasimautik, 2013). This is in addition to the funding provided through the five-year social housing construction agreements executed between 2005-2010 and 2010-2015 (Makivik Corporation, 2014). Between 2013 and 2016, Nunavik also receive \$33 million "toward reducing the cost of living inequities faced by Nunavimmiut" (Kativik Regional Government, 2013). Data were not obtained for the other three regions for any of these additional program areas since it is extremely difficult to compile funding data and decompose it by program area. However, given the perceived importance of funding for socioeconomic outcomes among the public, a key area for future research should be (1) the level of per capita funding in Nunavik compared to the other three Inuit Nunangat regions and (2) the extent to which differences in funding are translated into different outcomes. Future research could also focus on the extent to which funding in Inuit Nunangat is conditional on certain activities and outcomes and whether service providers in Nunavik have more discretion in the use of their funds than Nunavut, Nunatsiavut and the Inuvialuit region. Future research could also examine whether programs and services are better organized and more easily accessible in Nunavik relative to the other three Inuit Nunangat regions.

<sup>&</sup>lt;sup>10</sup> There could be an issue of reverse causality: Nunavik may have received more funding in the 2012-2013 fiscal year because it had poor educational attainment outcomes between 1996 and 2013. This also illustrates the importance of the difference between funding levels and actual usage.

As mentioned earlier, the institutional structure of Nunavik relative to the rest of the Inuit Nunangat regions can likely explain a large part of Nunavik's additional funding and subsequently its stronger labour market performance. In particular, since Nunavik is located within Québec, it is a recipient of provincial funding in addition to federal government funding. Nunatsiavut, also located in a province, is the recipient of additional funding from the provincial government of Newfoundland and Labrador. In contrast, the Inuvialuit region, located in the Northwest Territories, and Nunavut are only able to receive funding from the federal government.

It is arguable that Nunavik is the recipient of additional provincial government funding above and beyond the provincial government funding received by Nunatsiavut because of the existence of a unique connection between Nunavik and Québec. This argument is supported by the publication of a special issue of the Arctic and International Relations Series in Fall 2015 entitled "Québec Policy on the Arctic: Challenges and Perspectives," which discusses the history of the Québec-Nunavik relationship and outlines current economic, environmental and social challenges, as well as considerations for the future. For example, Fabbi and Gallucci (2015:10) explain that "Québec is currently the only subnational jurisdiction where the government and Arctic Indigenous peoples are engaged in a dynamic policy dialogue concerning the Arctic." Furthermore, they note that since the signing of the James Bay and Northern Québec Agreement, a landmark agreement in itself as it was "the first modern-day land claim in Canada" and a "turning point in government-Indigenous legal relations in Canada," the Government of Québec and the Makivik Corporation "have signed the Sanarrutik Agreement (2002) to establish a nation-to-nation relationship concerning economic and community development as well as the Sivunirmut Agreement (2004) to consolidate the relationship and seal a commitment to more adequate funding" (Fabbi and Gallucci, 2015:11).

Thus, it is likely that Nunavik's geographical location within Québec can help explain why Nunavik has been able to secure additional provincial government funding in addition to the traditional funding received by the federal government and above and beyond the provincial funding received by Nunatsiavut from Newfoundland and Labrador.

# **C. Employment Structure**

In this section, we explore the implications of the employment structure of Nunavik and compare it to other areas of Inuit Nunangat. It is possible that opportunities for employment in industries and sectors that require low levels of education are easier to find in Nunavik than in other Inuit Nunangat regions. Or, alternatively, it may be the case that the public sector in Nunavik, defined as public administration, health care and social assistance, and educational services, creates more jobs and is better able to provide employment opportunities for those Inuit with less education than other Inuit Nunangat regions. Finally, it could be that employers in Nunavik are more strongly encouraged to hire Inuit employees than employers in other Inuit Nunangat regions.

Appendix Table 1 shows the distribution of the Inuit experienced labour force by industry in the four regions of Inuit Nunangat and Canada for 2001, 2006 and 2011. In general, the share of the experienced labour force by industry in Nunavik is quite similar to the other three Inuit Nunangat regions. There only appear to be a few major exceptions. In particular, the data presented suggests that Nunavik had a much higher share of its experienced labour force in educational services than the other three regions in 2011 (13.9 per cent versus 7.7 per cent in Nunatsiavut, 8.4 per cent in Nunavut, and 5.9 per cent in the Inuvialuit region). This was also the case in 2001 and 2006. Health care and social assistance in Nunavik accounted for 24.8 per cent of the experienced labour force, a much higher share than in the other three regions at 11.8 per cent in Nunatsiavut, 7.9 per cent in Nunavut and 11.0 per cent in the Inuvialuit region. Finally, Nunavik has a larger share in local municipal and regional public administration than the other three regions, while it has a smaller share in federal government public administration and provincial and territorial public administration. Health care and social assistance, public administration and educational services were aggregated to create the 'public sector'. Data are shown in Chart 11.

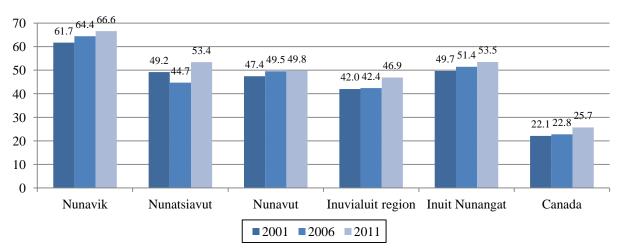
Thus, barring major differences in labour productivity across the three regions, <sup>12</sup> given the size of the public sector in Nunavik relative to Inuit Nunangat as a whole and the other three Inuit Nunangat regions, it is likely that the Kativik Regional Government and the Gouvernment du Québec, which are responsible for public administration, health care and social assistance, and educational services in Nunavik, are providing more jobs in these sectors for the Inuit with less education in Nunavik than the other regional governments are providing to their Inuit with less education in their respective Inuit Nunangat regions. <sup>13</sup>

<sup>&</sup>lt;sup>11</sup> For 2011, the experienced labour force refers to persons who, during the week of Sunday, May 1 to Saturday, May 7, 2011, were employed and the unemployed who had last worked for pay or in self-employment in either 2010 or 2011.

<sup>&</sup>lt;sup>12</sup> In the next section, we present estimates of GDP per capita, which can be used to determine productivity levels when combined with estimates of the employment rate. We find that since GDP per capita is lower in Nunavik, while the employment rate is higher, productivity must necessarily be lower than in the other three Inuit Nunangat regions. This result, however, depends heavily on the GDP per capita estimates, which are not official Statistics Canada figures.

<sup>&</sup>lt;sup>13</sup> The only way to confirm this suggestion would be to obtain a cross-section of educational attainment and sector of employment by Inuit Nunangat region. This data was not obtained for this report.

Chart 11: Share of Experienced Labour Force in Public Administration, Educational Services and Health Care and Social Assistance, Total Inuit and Non-Inuit Population, Inuit Nunangat, 2001, 2006 and 2011

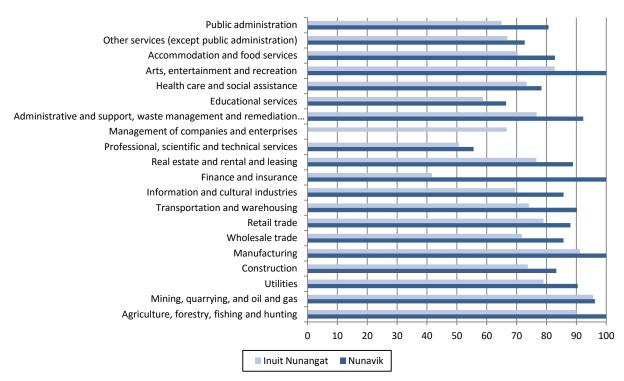


Source: Special order of data from Statistics Canada based on the 2001 Census, the 2006 Census and the 2011 NHS.

It is important to point out that Nunavik may have a higher share of the experienced labour force in public administration, educational services and health care and social assistance because Nunavik had a much more dispersed population than the Inuvialuit region and Nunatsiavut with only 16.6 per cent of its population in the largest population centre. However, this argument is slightly undermined by the fact that Nunavut's population is even more dispersed with only 14.4 per cent of its population in Iqaluit, the largest population centre, but its share of the experienced labour force in public administration, health care and social assistance and educational services is significantly lower than Nunavik's.

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Source: Special order of data from Statistics Canada based on the 2001 Census, the 2006 Census and the 2011 NHS.

The employment structure of Nunavik could also be an important factor in the educational attainment-labour market paradox if employers in Nunavik are more likely to hire Inuit employees than employers in the other three Inuit Nunangat regions. If this is the case, then the Inuit in Nunavik might have more employment opportunities, *ceteris paribus*, than the Inuit in the other three Inuit Nunangat regions. Chart 12 shows that this hypothesis had some traction in 2011. In particular, the Inuit share of the experienced labour force in Nunavik was higher than the Inuit share of the experienced labour force in Inuit Nunangat as a whole for all twenty two-digit NAICS industries. The greater likelihood of hiring an Inuit in Nunavik relative to Inuit Nunangat as a whole could be the result of (1) stronger Impact and Benefit Agreements (IBAs), (2) the James Bay Agreement, (3) more awareness of equity issues, or (4) population compositions. The fourth item stems from the fact that even if employers are equally willing to hire worker throughout Inuit Nunangat, we would expect to see higher Inuit shares of employment and labour force participation in Nunavik due to the fact that there are more Inuit as a share of the population in Nunavik (89.2 per cent) than in Inuit Nunangat as a whole (83.4 per cent).

<sup>&</sup>lt;sup>14</sup> Appendix Table 2 shows detailed data for all four Inuit Nunangat regions and for Inuit Nunangat as a whole for 2001, 2006 and 2011

<sup>&</sup>lt;sup>15</sup> One surprising finding is the exceptionally high share of Inuit in mining, quarrying, and oil and gas in Nunavik (96.2 per cent). Raglan mine has received attention in the past for its training program for the Inuit in Nunavik. However, according to Raglan's official documents, only 20 per cent of Raglan's labour force was Inuit in 2015 (Rogers, 2015b).

Hence, the public sector in Nunavik, defined as public administration, health care and social assistance, and educational services, is likely creating more jobs and is better able to provide employment opportunities for those Inuit with less education than other Inuit Nunangat regions. <sup>16</sup> In addition, it is also quite likely that employers are more willing to hire Inuit employees in Nunavik than in the other three Inuit Nunangat regions.

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## **D. Macroeconomic Performance**

The overall macroeconomic situation in Nunavik relative to the rest of the Inuit Nunangat regions could explain Nunavik's stronger labour market performance despite its lower educational attainment. In particular, it is possible that there are simply more jobs because there is a bigger, better and faster growing economy in Nunavik relative to the other three Inuit Nunangat regions. To investigate this issue, the CSLS commissioned Metro Economics to estimate gross domestic product (GDP) and employment for all four of the Inuit Nunangat regions.

Table 27 shows that Nunavik's GDP was higher than that of Nunatsiavut and the Inuvialuit region in 2006 and between 2011 and 2014. In particular, in 2014, Nunavik's GDP was \$434 million, while Nunatsiavut and the Inuvialuit region produced \$305 million and \$347 million respectively.

However, gross domestic product in Nunavut was \$2,021 million in 2014, 4.7 times higher than GDP in Nunavik. Furthermore, GDP per capita in Nunavik was substantially smaller than GDP per capita in Nunatsiavut and the Inuvialuit region in 2006 and between 2011 and 2015.

These results seem to suggest that Nunavik's economy is not significantly stronger than the economies of the other three regions.

Table 27: Gross Domestic Product (GDP) and GDP Per Capita, Inuit Nunangat by Region, 2006 and 2011-2015

	2006*	2011	2012	2013	2014	2015	Δ 2006- 2015	Δ 2011- 2015
	GDP (Millions)							
Nunatsiavut	734	363	294	323	305	303	-9.36	-4.42

<sup>16</sup> Given that employment is undoubtedly rationed in Inuit Nunangat, the higher percentage of Inuit of working-age normally employed in the public sector in Nunavik relative to the other three regions is evidence that the higher level of public sector employment in Nunavik must be partly responsible for the employment rate.

Nunavik	366	403	402	415	434	435	1.94	1.93
Inuvialuit region		318	322	335	347	339		1.61
Nunavut	1,289	1,690	1,710	1,910	2,021	1,957	4.75	3.74
				GDP	Per Capita			
Nunatsiavut	303,934	138,815	112,428	123,518	116,635	115,870	-10.16	-4.42
Nunavik	34,626	33,416	33,333	34,411	35,987	36,070	0.45	1.93
Inuvialuit region		55,352	56,049	58,312	60,400	59,008		1.61
Nunavut	44,144	53,312	53,943	60,252	63,754	61,735	3.80	3.74
				Employ	ment (Tota	al)		
Nunatsiavut	1,115	900	839	860	838	818	-3.38	-2.36
Nunavik	4,095	4,800	4,910	4,998	5,058	5,091	2.45	1.48
Inuvialuit region	•••	2,355	2,339	2,334	2,298	2,354		-0.01
Nunavut	10,370	10,455	10,614	10,792	11,034	10,915	0.57	1.08

Note: the drop in GDP in Nunatsiavut between 2006 and 2011 is the result of a drop in mining employment (down more than 50 per cent) and a 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.

Source: Special request for data from Metro Economics.

Nevertheless, GDP per capita grew more quickly in Nunavik than in Nunatsiavut between 2006 and 2015 and employment growth in Nunavik was significantly above employment growth in Nunatsiavut and Nunavut between 2006 and 2015. Employment growth in Nunavik was also stronger than employment growth in the other three Inuit Nunangat regions between 1996 and 2011.

Table 28: Employment, Inuit Nunangat by Region, Inuit Population (15+), 1996-2011

	Nunavik	Nunatsiavut	Nunavut	Inuvialuit Region	Inuit Nunangat
1996	2,200	485	5,365	890	8,935
2001	2,600	560	6,260	980	10,395
2006	3,000	545	7,155	1,005	11,700
2011	3,665	675	7,425	1,030	12,800
Δ 1996-2011 (%)	3.5	2.2	2.2	1.0	2.4

Source: Special order of data from Statistics Canada based on the 1996 Census, the 2001 Census, the 2006 Census and the 2011 NHS.

Hence, macroeconomic conditions in Nunavik related to employment growth may partially explain Nunavik's labour market performance-educational attainment paradox, but it is unlikely that employment growth (or an outward shift in aggregate labour demand) can explain the entirety of the differences in labour market outcomes between the four regions of Inuit Nunangat. <sup>17</sup>

<sup>\*</sup> GDP per capita in 2006 was calculated using the population in 2006. For 2011 through 2015, the population in 2011 was used.

<sup>&</sup>lt;sup>17</sup> The unemployment rate was significantly higher in the rest of Inuit Nunangat than in Nunavik in 1996, 2001, 2006 and 2011. Hence, the difference seems structural and persistent. It is possible that the labour market simply

# E. Barriers to Employment

Palesch (2016) identified some major barriers to employment for the Inuit in Canada's North, including access to housing, the high cost of living, a systemic lack of infrastructure, and challenges with mental and physical health. In this subsection, we investigate whether the barriers to employment identified by Palesch (2016) are less problematic in Nunavik than in the rest of Inuit Nunangat.<sup>18</sup>

## i. Housing

An insufficient quality and quantity of housing can act as a barrier to employment for a number of reasons, a few of which are highlighted below. For example, the lack of sufficient and adequate housing can create unhealthy environments with too many people living in one space or in places that are in need of major repair. These unhealthy environments, in turn, can lead to physical and mental health problems.

Some physical health concerns caused by overcrowding include "contagious diseases, such as respiratory tract, skin, ear and eye infections, and tuberculosis," while mental health problems caused by overcrowding can include "chronic stress" and lead to situations with "physical and sexual violence...and suicide" (Parnasimautik, 2013).

In many cases, these physical and mental health problems can be a barrier to employment from both a supply perspective and a demand perspective. In particular, individuals cannot work because they are too ill or they do not have access to the medical care to alleviate or cure their illnesses, and employers do not want to hire individuals because of the risk of their departure due to illness or mental instability.

Furthermore, when there is an insufficient quantity and quality of housing, individuals also often do not choose to move to optimize their employment opportunities because of the risk of homelessness.

It is important to point out before proceeding, however, that it would take very large differences in housing conditions to create significant differences in labour market performance.

Table 29 shows that Nunavik was actually facing a direr housing situation than the other three Inuit Nunangat regions in terms of the number of persons per room in 2011. In particular, Nunavik had 21.6 per cent of its households in housing situations with 1.50 persons or more per room. This stands in stark contrast to the 4.7 per cent in Nunatsiavut and the 5.7 per cent in the Inuvialuit region, although Nunavut faced an almost equally as dire housing situation with 17.5 per cent of its households in housing with 1.50 persons or more per room. The data for 2006 support the data from 2011.

functions better in Nunavik than in the rest of Inuit Nunangat, and the reasons for this better functioning labour market may be part of the explanation for its stronger labour market outcomes.

<sup>&</sup>lt;sup>18</sup> It is important to note that there are issues of reverse causality for many of these barriers.

Turning to the share of households in housing situations with 1.01 to 1.49 persons per room, Nunavik continues to show the worst outcomes in 2011. In particular, Nunavik had 27.3 per cent of its households in houses with 1.01 to 1.49 persons per room, while Nunatsiavut, Nunavut and the Inuvialuit region had only 11.4 per cent, 21.8 per cent and 12.6 per cent in this type of housing.

Table 29: Number of Rooms Per Person, Inuit Population, Inuit Nunangat, 2006 and 2011

	Nun	Nunavik		natsiavut Nunavut Inuvialuit Region N		/11 <b>f</b>				
	2006	2011	2006	2011	2006	2011	2006	2011	2006	2011
1.0 persons or fewer per room	50.8	51.2	87.5	83.9	61.4	60.8	81.2	81.8	61.8	61.2
1.01 to 1.49 persons per room	27.9	27.3	9.5	11.4	24.3	21.8	13.0	12.6	23.5	21.9
1.50 persons or more per room	21.3	21.6	3.0	4.7	14.4	17.5	5.8	5.7	14.7	16.9

Source: NHS 2011 Series Number 99-011-X2011035 and 2006 Census Series Number 97-558-XCB2006023.

Housing suitability data also show that Nunavik had a larger share of its households in housing that was deemed unsuitable (57.2 per cent) than any other Inuit Nunangat region (Table 30). In particular, Nunatsiavut and the Inuvialuit region had only 28.1 per cent and 29.0 per cent of their households in unsuitable housing, while Nunavut had 54.2 per cent.

Table 30: Housing Suitability, Inuit Population, Inuit Nunangat, 2011

	Nunavik	Nunatsiavut	Nunavut	Inuvialuit Region	Inuit Nunangat
Suitable	42.9	71.7	45.8	71.1	48.4
Not suitable	57.2	28.1	54.2	29.0	51.6
One bedroom shortfall	30.3	17.0	29.5	21.0	28.4
Two bedroom shortfall	16.1	6.7	14.1	5.1	13.5
Three or more bedroom shortfall	10.7	4.3	10.7	2.9	9.7

Source: NHS 2011 Series Number 99-011-X2011035.

These data on the number of people per room and the suitability of housing provide insight into the quantity of available housing, while Table 31 provides insight into the quality of the available housing by looking into the conditions of dwellings.<sup>20</sup>

<sup>&</sup>lt;sup>19</sup> Statistics Canada (2016a) defines housing suitability according to the National Occupancy Standard (NOS). It classifies a dwelling as suitable if there are enough bedrooms for the size and composition of the household.

<sup>&</sup>lt;sup>20</sup> Statistics Canada (2016b) classifies dwellings as follows: regular repairs includes dwellings where only regular maintenance such as painting or furnace cleaning is required; minor repairs includes dwellings needing only minor repairs such as dwellings with missing or loose floor tiles, bricks or shingles or defective steps, railing or siding; and

Table 31: Condition of Dwelling, Inuit Population, Inuit Nunangat, 2006 and 2011

	Nunavik		Nunatsiavut Nunavut		Inuvialuit Region		Inuit Nunangat			
	2006	2011	2006	2011	2006	2011	2006	2011	2006	2011
Regular repairs	23.9	31.4	35.4	40.6	38.4	34.1	42.7	38.4	35.0	34.1
Minor repairs	30.0	29.9	30.6	27.7	35.7	30.6	29.5	31.9	33.5	30.3
Major repairs	46.1	38.7	34.0	31.3	25.9	35.4	27.9	29.7	31.4	35.6

Source: NHS 2011 Series Number 99-011-X2011035 and 2006 Census Series Number 97-558-XCB2006023.

Nunavik had a higher share of households in housing that requires major repairs than any other Inuit Nunangat region in 2011 (38.7 per cent). Nunavut had the next highest share at 35.4 per cent, followed by Nunatsiavut (31.3 per cent) and the Inuvialuit region (29.7 per cent). Nunavik's share of households in housing that required major repairs in 2006 was even more elevated than in 2011 at 46.1 per cent.

These data on housing by Inuit Nunangat region suggest that Nunavik did not have better quality housing than the other three regions. In fact, Nunavik had worse housing conditions. Therefore, this barrier to employment cannot explain why Nunavik was able to maintain such strong labour market outcomes despite low educational attainment. However, this report assumes that individuals in all four Inuit Nunangat regions react similarly to housing conditions. Future research should focus on whether poor quality housing and limited availability generates the same incentives in all four Inuit Nunangat regions. It is possible, albeit unlikely, that the Inuit in Nunavik respond to poor quality housing by choosing to work more, while those in the other three Inuit Nunangat regions do not.

The quality and quantity of housing is only one aspect of the housing environment in Inuit Nunangat. The cost of public housing is another important determinant of employment incentives. In particular, monthly rent in public housing often increases in increments as an individual's income increases, so there are implicit disincentives to employment. Since all four regions have differing rent scales for social housing, it is possible that there are stronger disincentives to employment across Inuit Nunangat.

Table 32: Share of the Population in Rented and Subsidized Housing, Inuit Nunangat by Region, 2006

	Rented	Subsidized Housing
Nunavik	95	70
Nunatsiavut	29	63
Nunavut	71	79
Inuvialuit region	59	72
Inuit Nunangat	73	75

Source: Inuit Knowledge Centre (2016).

major repairs includes dwellings needing major repairs such as dwellings with defective plumbing or electrical wiring and dwellings needing structural repairs to walls, floors or ceilings.

Table 32 shows the share of the Aboriginal population by Inuit Nunangat region in rented and subsidized housing. This table shows that Nunavik has the highest share of the Aboriginal population in rented housing, but has one of the lowest shares of the Aboriginal population in subsidized housing.

Table 33: Nunavik Public Housing Rent Scale as of July 2013

Head of Household Receiving									
		sistance Benefits	Head of Hou	sehold -Other					
	Minimum Rent	* *							
	Reno	ovated Unit							
2 bedrooms	182	361	238	448					
3 bedrooms	210	376	261	510					
4 bedrooms	238	390	307	580					
	Unit Bu	ilt Since 1980							
1 bedroom or small studio	143	232	165	334					
Large studio	143	248	165	334					
2 bedrooms	182	327	238	448					
2 bedrooms (semi-detached)	182	361	238	489					
3 bedrooms	210	376	261	565					
4 bedrooms	238	390	307	640					
5 bedrooms	266	408	397	715					
6 bedrooms	283	462	426	787					

Note: By default, a household pays the maximum rent. However, if it considers this rent too expensive, it may request that it be rated at 25% of adjusted income (certain deductions apply to gross household income). This adjusted rent may not be less than the minimum rent or exceed the maximum rent.

Source: Société d'Habitation du Québec (2014).

Table 34: Northwest Territories Public Housing Rent Scale as of July 2012

	Montly Rent						
Monthly Income	Zone A	Zone B	Zone C				
Less than 1,667	80	75	70				
1,667 to 2,499	160	150	140				
2,500 to 3,749	365	345	325				
3,750 to 4,999	610	580	555				
5,000 to 6,674	890	845	790				
6,675 to 8,333	1,295	1,230	1,155				
8,334 or more	1,625	1,545	1,445				

Note: Zone A communities include Yellowknife, Hay River, Fort Smith, Inuvik, Norman Wells, and Fort Simpson. Zone B communities include Detah/N'dilo, Hay River Reserve, Enterprise, Behchoko, Fort Liard, For Providence, Kakisa, Jean Marie River, Nahanni Butte, Fort Resolution, Gameti, Whati, Trout Lake, Wekweeti, and Wrigley. Zone C communities include Fort McPherson, Tsigehtchich, Tulita, Lutselk'e, Aklavik, Tuktoyaktuk, Deline, Fort Good Hope, Paulatuk, Sachs Harbour, Ulukhaktok, and Colville Lake. Source: Northwest Territories Housing Corporation (2016).

**Table 35: Nunavut Public Housing Rent Scale** 

Annual Income	Monthly Rent
Less than 22,000	\$60
22,000 to 40,000	20 per cent of annual income
40,000 to 80,000	25 per cent of annual income
80,000 to 97,200	30 per cent of annual income
97,200 or more	Maximum rent
0 ) 1	(2012)

Source: Nunatsiaq News (2013).

Table 33, Table 34 and Table 35 show the rent scales for Nunavik, the Northwest Territories (which administers social housing in the Inuvialuit region), and Nunavut. These three tables show that there are important differences in how monthly rent responds to increases in income across Inuit Nunangat. For example, households in Nunavik automatically pay the maximum rent with possible downward adjustments in case of difficulties with payment. In contrast, households in the Inuvialuit region and Nunavut see their monthly rent change as their income changes. This suggests that households using public housing in Nunavik cannot be subjected to rent increases assuming they are already paying the maximum rent. In contrast, as income increases in the Inuvialuit region and Nunavut monthly rent increases in increments. Nunatsiavut social housing residents also see their rent increase with income. In particular, the Newfoundland and Labrador Housing Corporation states that tenants in social housing are required to pay 25 per cent of their total monthly household income towards rent (NLHC, 2016).<sup>22</sup>

Thus, it is possible that Nunavik has slightly stronger labour market performance than the other three regions in Inuit Nunangat because Nunavik has one of the lowest shares of the population in subsidized housing and Nunavik has much lower disincentives to employment due to public housing rent scales than Nunatsiavut, Nunavut and the Inuvialuit region. Future research should examine whether the differing rental scales for public housing in the four Inuit Nunangat regions are actually generating different labour market responses in Nunavik relative to the other three Inuit Nunangat regions. Future research could also examine the effects of other social assistance programs (unemployment insurance, welfare, etc.) to determine if they have different employment disincentive effects in different Inuit Nunangat regions.

## ii. Cost of Living

The high cost of living in Canada's North could be an impediment to labour market participation because a high cost of living can lead to household food insecurity. Often, when households are faced with food insecurity, levels of anxiety, stress and desperation can rise,

<sup>&</sup>lt;sup>21</sup> Median income after tax in Nunavik in 2010 was \$20,150 or approximately \$1,680 per month. Using the 25 per cent benchmark describe in their social housing rent scale, this is a monthly rent of \$420. For individuals receiving employment assistance benefits, this is above the maximum, so they would automatically pay the maximum rent in Nunavik (unless they lived in an 8 bedroom home). In contrast, for individuals not receiving employment assistance benefits and living in a unit with 2 bedrooms or more, this is below the maximum, so they would be eligible for a rent decrease.

<sup>&</sup>lt;sup>22</sup> Nunatsiavut's housing is administered by the Torngat Regional Housing Association, which is a non-profit organization connected to the Newfoundland and Labrador Housing Corporation (Wilson, 2015:10).

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leading to violence, crime, and significant health challenges. These issues can all impact an individual's labour market performance. However, a high cost of living could also encourage higher labour force participation rates among the younger segment of the population as they are more likely to forego education in order to contribute to the family income. Hence, the direction of the impact of a high cost of living is ambiguous and depends entirely on the importance that each of these channels might play in the different regions of Inuit Nunangat. Furthermore, it would take very large differences in cost of living to create significant differences in labour market performance.

Assuming that the channels play identical roles in all four regions and Nunavik has a lower or higher cost of living than the other three regions, it could be argued that the cost of living is a factor that can help explain Nunavik's strong labour market performance despite poor educational attainment. If this assumption does not hold, the argument becomes too complex to evaluate without more detailed information on all four Inuit Nunangat regions.

Table 36: Average Price of the Revised Northern Food Basket and Price Adjustment Factors for Southern Canada, Inuit Nunangat, 2007-2009

	Price	Per	ishables	(\$)	Non-p	erishable	es (\$)	Total (\$)			
	adjustment factor	2007	2008	2009	2007	2008	2009	2007	2008	2009	
Reference urban centres	1.00	148.0	156.0	162.0	66.0	74.0	80.0	214.0	229.0	241.0	
Inuit Nunangat	1.66	241.3	259.4	250.0	114.6	120.4	122.5	355.7	379.8	372.2	
Inuvialuit region	1.79	262.0	292.0		120.3	128.3		382.3	420.3		
Nunatsiavut	1.30	194.8	208.0	218.0	83.8	87.5	98.4	278.5	295.5	315.8	
Nunavik	1.66	243.0	248.0	254.6	116.5	119.5	121.1	359.0	367.5	375.6	
Nunavut	1.88	265.3	289.6	277.3	137.9	146.2	148.0	403.1	435.9	425.4	

Source: Duhaime and Edouard (2015).

Table 36 shows that the average price of the revised northern food basket for Nunavik is less that the Inuvialuit region and Nunavut, but more expensive than Nunatsiavut. <sup>23</sup> Table 37 shows that median household income after taxes and adjustments for household composition and prices in Nunavik is higher than that in Nunavut and the Inuvialuit region, but it is lower than that in Nunatsiavut.

 $^{23}$  The prices in this table were calculated using data disaggregated by region from the price surveys conducted by Aboriginal and Northern Development Canada from 2005 to 2010.

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Table 37: Median Household Income, Before and Adjustment Adjustments and After Taxes for Inuit Nunangat, 2006

	Initial values	Adjusted for household consumption	Adjusted for household consumption and prices
Inuit Nunangat	53,053	26,766	15,289
Inuvialuit region	50,000	30,708	16,067
Nunatsiavut	45,298	23,713	18,235
Nunavik	56,345	27,477	16,413
Nunavut	53,178	26,042	13,828

Note: The authors used an equivalence scale to adjust for household composition.

Source: Duhaime and Edouard (2015).

Chart 10 shows the share of the Inuit population aged 15-19 years that attended school between September 2010 and May 2011. The data show that Nunavik had a much lower share of the Inuit population aged 15-19 years attending school than the other three Inuit Nunangat regions. Hence, children in Nunavik might be foregoing their education earlier than in the other three regions, <sup>24</sup> but since the cost of living in Nunavik is not significantly higher than in the other three regions, it is difficult to argue that this difference in school attendance is caused by the cost of living. This provides further evidence that the cost of living is an unlikely factor in explaining Nunavik's strong labour market performance.

Hence, as long as the strength and direction of the relationship between the cost of living and labour market performance in Inuit Nunangat is similar across all four regions, Nunavik does not appear to have an obvious upward or downward advantage relative to the other three regions in terms of its cost of living. Thus, it is unlikely that this factor can explain Nunavik's educational attainment-labour market performance paradox.

#### iii. Infrastructure

Poor public transportation can limit the number of employment opportunities for the people who do not have access to private transportation. Poorly maintained buildings can create risks and encourage the spread of contagious diseases. Finally, infrastructure gaps can lead to overcrowding of hospitals and child care centres, furthering the chances of illnesses and outbreaks. These are just a few of the channels through which poor infrastructure can negatively impact labour force participation. Hence, if Nunavik has a higher quality of infrastructure than the other three Inuit Nunangat regions, it is quite possible that this could provide an explanation for Nunavik's labour market outcomes-educational attainment paradox. It is important to point out before proceeding, however, that it would take very large differences in infrastructure conditions to create significant differences in labour market performance.

<sup>24</sup> Data on school attendance suggest that the participation rate for Inuit aged 15-19 years in Nunavik who were not attending school in 2011 was 52.9 per cent. This compares to 36.4 per cent in Nunatsiavut, 34.9 per cent in Nunavut, and 52.9 per cent in the Inuvialuit region (the participation rate in the Inuvialuit region is driven by a higher unemployment rate, i.e. 44.4 per cent, than in Nunavik, i.e. 26.6 per cent). This suggests that Inuit children in Nunavik may be foregoing education earlier than other regions to start working earlier, but it is unlikely that this is linked to differences in the cost of living between regions.

Many child care centres in Inuit Nunangat are in desperate need of renovation (Table 38). However, Nunavik actually has more renovation needs than two of three Inuit Nunangat regions.

Table 38: Overview of Child Care Infrastructure Needs By Region

	Total Number of Centres	Number of Centres in Need of Renovations	Share of Centres in Need of Renovations	Number of Sites Closed Due to Infrastructure Needs	Number of New Centres Needed	
Nunatsiavut	5	1	20.0	0	2	
Nunavik	19	14	73.7	0	2	
Nunavut	37	19	51.4	5	7	
Inuvialuit region	3	3	100.0	1	2	

Source: ITK (2014)

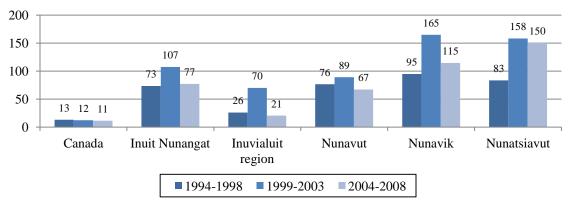
But, child care centres are only one measure of infrastructure needs. Other important areas of infrastructure include transportation infrastructure, telecommunications infrastructure, waste and water infrastructure, and health care infrastructure. Unfortunately, data on the quality and quantity of these types of infrastructure were not available for the four Inuit Nunangat regions. Clearly, this area is ripe for future research and should be considered a priority as infrastructure is crucial for a fully functioning labour market.

## iv. Mental and Physical Health

As already highlighted, an individual's mental and physical health can impact their labour market performance. Hence, if Nunavik has a better mental and physical health picture than the rest of the Inuit Nunangat regions, then mental and physical health could explain the labour market outcomes-educational attainment paradox in Nunavik. It is important to point out, however, that it would take very large differences in health conditions to create significant differences in labour market performance.

Chart 13 shows that Nunavik had a higher crude mortality rate from suicides and self-inflicted injuries than Inuit Nunangat between 1994-1998, 1999-2003 and 2004-2008.

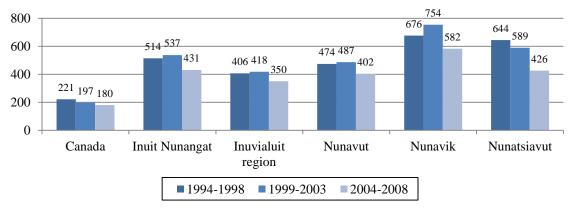
Chart 13: Crude Mortality Rate Per 100,000 Population by Suicides and Self-inflicted Injuries by Region, Inuit Nunangat, Total Population, 1994-2008



Source: CANSIM 102-0704.

Chart 14 shows the age-standardized crude mortality rate for Inuit Nunangat by region. Nunavik has a much higher age-standardized mortality rate than Inuit Nunangat. At the regional level, the differences in age-standardized mortality rates for Nunavik and Nunatsiavut are not statistically significant, but the differences between Nunavik and Nunavut, and Nunavik and the Inuvialuit region are statistically significant.

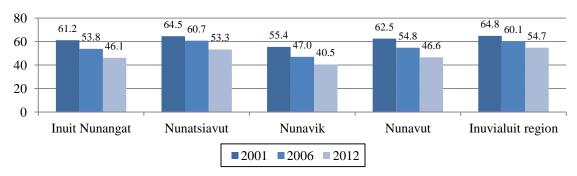
Chart 14: Age-Standardized Mortality Rate Per 100,000 Population by Region, Inuit Nunangat, Total Population, 1994-2008



Source: CANSIM 102-0704.

Chart 15 shows that the Aboriginal population of Nunavik had the lowest perceived level of excellent or very good general health in 2001, 2006 and 2012. The differences between Nunavik and the other three regions in terms of perceived general health were statistically significant for all three time periods. In 2012, only 40.5 per cent of the Aboriginal population of Nunavik perceived themselves to be in excellent or very good general health, while this level was 46.1 per cent in Inuit Nunangat. It is interesting to note that all four Inuit Nunangat regions saw a marked decline in their levels of perceived general health between 2001 and 2012. Of the four regions, Nunavik and Nunavut saw the largest declines in their perceived mental health (14.9 per cent and 15.9 per cent respectively).

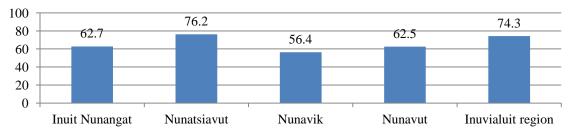
Chart 15: Excellent or Very Good Perceived General Health, Aboriginal Peoples Survey, Inuit Nunangat, Total (6+), 2001, 2006 and 2012



Source: CANSIM 577-0002.

Chart 16 shows that the share of the Aboriginal population that contacted a health professional in the last 12 months in Nunavik was lower than in Inuit Nunangat as a whole and compared to the other three Inuit Nunangat regions. The differences between Nunavik and any other region are statistically significant at the 5 per cent level since their confidence intervals do not overlap.

Chart 16: Contacted Health Professional in the Last 12 Months, Aboriginal Peoples Survey, Inuit Nunangat, Total (6+), 2001, 2006 and 2012



Source: CANSIM 577-0004.

There are many other health indicators that can be obtained from both the Aboriginal Peoples Survey 2006 and the Aboriginal Peoples Survey 2012. On average, all of these indicators suggest that Nunavik has similar or worse health outcomes than Inuit Nunangat as a whole and relative to the other three regions. These data are not presented here, but they can be easily accessed online. <sup>25</sup>

Since Nunavik does not have the best mental and physical health, this factor cannot explain the strong labour market performance in this region relative to Nunavut, Nunatsiavut and the Inuvialuit region despite low educational attainment. Nunavik actually often has worse health outcomes, which suggests that Nunavik should have worse labour market performance relative to

<sup>&</sup>lt;sup>25</sup> Inuit Kaujisarvingat Knowledge Centre has a very detailed database on health indicators in the Inuit Nunangat regions based on the 2006 and 2012 Aboriginal Peoples Surveys, available at <a href="www.inuitknowledge.ca/naasautit">www.inuitknowledge.ca/naasautit</a>. In addition, Statistics Canada (2008) published supporting data tables on Inuit health from the 2006 Aboriginal Peoples Survey. Lastly, Statistics Canada (2015a) contains a detailed list of the data tables in CANSIM corresponding to the 2012 Aboriginal Peoples Survey.

its peers, *ceteris paribus*. Hence, the data shown above implies another paradox: not only does Nunavik have strong labour market performance despite its low educational attainment relative to the other three Inuit Nunangat regions, Nunavik also has strong labour market performance despite its poor health outcomes relative to the other three Inuit Nunangat regions.

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#### v. Child Care

Theoretically, the availability and cost of child care impacts female labour force participation. In 1997, Québec introduced a policy that provided child care to children aged 5 years and over for only \$5 a day. This policy was expanded to include children aged 0 to 4 years in 2000. Empirically, the impact of Québec's low-fee child care policy on female labour force participation rates in Québec has been tested by a number of academics. Based on a review of existing studies, Fortin et al. (2012:26) "calculated that the low-fee childcare program was responsible for about 70,000 additional Québec mothers being at work in 2008." Since Nunavik is a part of Québec, the female Inuit population of Nunavik also responded to the opportunity to return to work. This response was encouraged further by the nearly simultaneous introduction of the First Nations and Inuit Child Care Initiative in 1995.

This program "was designed to support labour market development in Aboriginal communities through licensed child care. The main goal of the FNICCI was to establish child care services for Inuit and First Nations children under the age of six that matched the accessibility of services in the rest of Canada. The FNICCI aimed to create 6,000 quality child care spaces in Inuit and First Nations communities within a three-year transitional phase (between 1995 and 1998) by improving the quality of existing spaces, creating new spaces, and supporting the operation of these spaces. Of these 6,000 spaces, 625 were slated to be opened in Inuit communities. The initiative provided 72 million dollars for the three-year transitional phase, and 36 million per year afterwards" (ITK, 2014).

Since the labour supply of mothers is very sensitive to variations in the cost of day care (Baker, Gruber, and Milligan, 2008), it can be argued that both the availability and the low cost of child care in Nunavik greatly increased the employment rate and labour force participation rate of mothers relative to that of the other three Inuit Nunangat regions. The evidence for this argument is presented below.

Table 39 shows that the share of children between the ages of 0 and 5 years in child care was much higher in Nunavik (50 per cent) than in Nunavut (29 per cent) and the Inuvialuit region (38 per cent). Nunatsiavut is the only other Inuit Nunangat region with a share (46 per cent) that is similar to that of Nunavik. This shows that mothers in Nunavik put their children into child care more frequently than mothers in Nunavut and the Inuvialuit region.

<sup>26</sup> The lower bound and upper bound estimates also show that these differences are statistically significant.

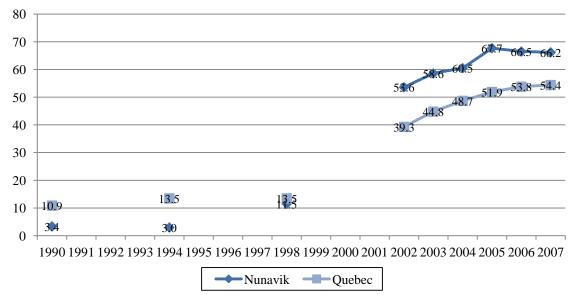
Table 39: Inuit Children Under Six Years Old Currently Receiving Regular Child Care, Canada and Inuit Nunangat, 2006

	Nunavik	Nunavik Nunatsiavut		Inuvialuit Region
Total	570	60	770	90
Per Cent	50	46	29	38
Lower Bound*	46.6	41.1	25.8	32.4
Upper Bound*	53.4	51.2	32.5	45.2

<sup>\*</sup> The lower bounds and upper bounds are based on 95 per cent confidence intervals. Note: Currently receiving regular child care refers to the care of a child by someone other than a parent, including day care, nursery or preschool, Head Start, before or after school programs and care by a relative or other caregiver. These refer to regular arrangements that are consistently used, rather than sporadically (e.g. babysitting). Source: Statistics Canada, Aboriginal Children's Survey, 2006.

Chart 17 shows how the rate of available child care places for children under five years of age in Nunavik has increased from a paltry 3.4 places per 100 children in 1990 to a massive 67.7 places per 100 children in 2005. Nunavik's rate of available child care places for children under five years of age was actually higher than the rate in the rest of Québec by 2002. This chart shows that the supply of child care spaces in Nunavik greatly increased after the implementation of the FNICCI in 1995 and Québec's family policy in 1997.

Chart 17: Available Child Care Places for Children Under Five Years of Age, Rate Per 100 Children Aged 0-4 Years, Nunavik and Québec, 1990-2005



Source: Duhaime (2008) and Duhaime, Levesque and Caron (2015).

Table 40 and Chart 18 show how the rate of available child care places for children under five years of age in Nunavik compares to that in the other three Inuit Nunangat regions. In both 2007 and 2014, the number of available child care places per 100 children between the ages of 0

and 4 years in Nunavik was much higher than in Nunavut, Nunatsiavut and in the Inuvialuit region. In addition, Table 40 shows that child care in Nunavik is less expensive than child care in Nunavut and the Inuvialuit region. Nunatsiavut had comparably low child care fees in 2007, but by 2014 they were higher than those in Nunavik. Hence, this table shows that the supply of child care spaces in Nunavik greatly exceeds that of the other three Inuit Nunangat regions, while the cost of child care is lower in Nunavik than in all three Inuit Nunangat regions and much lower than in two of the three Inuit Nunangat regions.

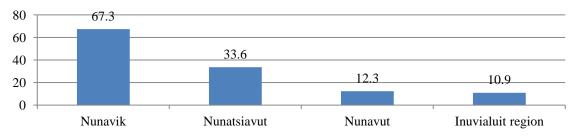
Table 40: Number of Licensed Child Care Places and Rate Per 100 Children Aged 0-4 Years, 2007 and 2014

		2007	2014
	Number of Licensed Places	815	1,009
Nunavik	Number of Children Aged 0-4 Years	1,325	1,500
INUIIAVIK	Rate of Places Per 100 Children Aged 0-4 Years	61.5	67.3
	Fee Per Day	\$7	\$7
	Number of Licensed Places	50	79
Numataiarmt	Number of Children Aged 0-4 Years	180	235
Nunatsiavut	Rate of Places Per 100 Children Aged 0-4 Years	27.8	33.6
	Fee Per Day	\$5	\$10
	Number of Licensed Places	960	489
Nunavut	Number of Children Aged 0-4 Years	3,420	3,985
Nullavut	Rate of Places Per 100 Children Aged 0-4 Years	28.1	12.3
	Fee Per Day	\$20-\$40	\$15-\$50
	Number of Licensed Places	184	62
Inuvialuit	Number of Children Aged 0-4 Years	485	570
region	Rate of Places Per 100 Children Aged 0-4 Years	37.9	10.9
	Fee Per Day	\$0-\$30	\$0-\$70**

Note: the number of children aged 0-4 years in the 2007 column is actually from the 2006 Census and the number of children aged 0-4 years in the 2014 column is actually from the 2011 NHS.

\*\* The \$70 upper bound is based on the highest fee at the Children First Child Development Centre. This is a privately-run child care centre. The \$0 lower bound is based on the cost of attending one of three child development centres managed by the Inuvialuit Regional Corporation and funded through FNICCI, the GNWT, and other sources. Source: 2006 Census, 2011 NHS, Tagataga Inc. (2007) and ITK (2014).

Chart 18: Rate of Places Per 100 Children Aged 0-4 Years, 2014



Source: Table 40.

Table 41 presents data on the employment rate of males and females in Inuit Nunangat by region between 1996 and 2011. Prior to the full implementation of the FNICCI and the Québec

family policy, Nunavik's female Inuit employment rate was 48.2 per cent. By 2011, this employment rate had increased nearly 8 percentage points to 56.0 per cent. Nunavut, one region with higher costs of child care and a lower supply than Nunavik, saw relatively stable employment rates over the period. Female Inuit employment rates in the Inuvialuit region, another region with higher child care costs and fewer available places, actually declined from 47.8 per cent in 1996 to 44.9 per cent in 2011. Nunatsiavut, the only region with comparable child care costs despite a much lower supply of available spaces, actually saw an increase in female employment rates, but not by the same magnitude as the increase in Nunavik.<sup>27</sup>

Table 41: Employment Rate by Gender, Inuit Nunangat by Region, Inuit Population (15+), Per Cent, 1996-2011

	Nunavik		Nuna	ıtsiavut	vut Nunavut		Inuvialuit Region		Inuit Nunangat	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1996	53.1	48.2	34.0	39.3	48.3	43.5	44.3	47.8	47.9	44.8
2001	50.9	52.0	28.9	43.5	48.0	46.8	50.8	48.5	47.5	48.0
2006	50.0	53.0	28.8	40.9	46.4	47.3	47.0	46.1	46.1	48.1
2011	52.1	56.0	33.9	44.0	42.3	44.2	41.7	44.9	44.1	47.1
Δ 1996-2011	-1.0	7.8	-0.1	4.7	-6.0	0.7	-2.6	-2.9	-3.8	2.3

Source: Special order of data from Statistics Canada based on the 2011 NHS.

Table 42: Relative Employment Rates by Gender, Inuit Nunangat by Region, Inuit Population (15+), Per Cent, Inuit Nunangat=100, 1996-2011

	Nun	avik	Nunat	tsiavut	Nur	avut	Inuvialuit region		Inuit N	unangat	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
1996	110.9	107.6	71.0	87.7	100.8	97.1	92.5	106.7	100.0	100.0	
2001	107.2	108.3	60.8	90.6	101.1	97.5	106.9	101.0	100.0	100.0	
2006	108.5	110.2	62.5	85.0	100.7	98.3	102.0	95.8	100.0	100.0	
2011	118.1	118.9	76.9	93.4	95.9	93.8	94.6	95.3	100.0	100.0	

Source: CSLS calculations based on Table 41.

Table 43 shows the Inuit labour force participation rate by gender for Inuit Nunangat. This table tells exactly the same story as Table 41.

Table 43: Labour Force Participation Rate by Gender, Inuit Nunangat by Region, Inuit Population (15+), Per Cent, 1996-2011

	Nunavik		Nuna	Nunatsiavut Nunavut		navut	Inuvialu	it Region	Inuit Nunangat	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1996	64.5	57.4	54.2	52.5	62.3	54.4	61.6	58.1	62.1	55.3
2001	63.2	60.2	56.0	55.8	64.1	59.0	65.5	59.2	63.5	59.1
2006	65.5	64.7	54.4	51.9	61.1	56.6	65.6	59.4	62.0	58.4

<sup>27</sup> It is also interesting to note that the male participation rate also increased in Nunatsiavut during this time period, but since the employment rate did not increase during this time period, this increase was entirely driven by increases in the unemployment rate.

2011	64.9	64.8	60.7	58.3	58.4	54.9	59.6	54.3	60.1	57.5
Δ 1996-2011	0.4	7.4	6.5	5.8	-3.9	0.5	-2.0	-3.8	-2.0	2.2

Source: Special order of data from Statistics Canada based on the 2011 NHS.

Table 44: Relative Labour Force Participation Rates by Gender, Inuit Nunangat by Region, Inuit Population (15+), Per Cent, Inuit Nunangat=100, 1996-2011

	Nunavik		Nunat	tsiavut	Nun	avut	Inuvialu	it region	Inuit Nunangat		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
1996	103.8	103.8	87.3	94.9	100.9	98.4	99.2	105.1	100.0	100.0	
2001	99.5	101.9	88.2	94.4	100.9	99.8	103.1	100.2	100.0	100.0	
2006	105.6	110.8	87.7	88.9	98.5	96.9	105.8	101.7	100.0	100.0	
2011	108.0	112.7	101.0	101.4	97.2	95.5	99.2	94.4	100.0	100.0	

Source: CSLS calculations based on Table 43.

The numbers presented above can be put in the form of a simple natural experiment, comparing how the male-female labour force participation rate and the male-female employment rate differential changed in Nunavik compared to the other three Inuit Nunangat regions between 1996 (pre-treatment) and 2011 (post-treatment). The idea is to take advantage of the fact that the child care program targeted women's participation specifically, while other factors at work affected both men's and women's participation rates to a similar extent.

The results for this natural experiment are presented in Table 45, which shows that the labour force participation rate gap between men and women was reduced by 7.0 percentage points in Nunavik and 4.4 percentage points in Nunavut, while it increased by 0.7 percentage points in Nunatsiavut and 1.8 percentage points in the Inuvialuit region. This implies that the male-female differential in labour force participation in Nunavik was reduced by 7.7 percentage points more in Nunavik than in Nunavik than in Nunavik than in Nunavik than in the Inuvialuit region. Similar conclusions can be made concerning the employment rate. These differences in differences in differences might partly be explain by low-fee child care and child care availability.

Table 45: Differences in Differences Calculations, Employment Rate and Labour Force Participation Rate, Inuit Nunangat, 1996-2011

		Labour Force Participation Rate							
Nunavik	1996	2011	Δ	DDD	1996	2011	Δ	DDD	
Men	53.1	52.1	-1.0		64.5	64.9	0.4		
Women	48.2	56.0	7.8		57.4	64.8	7.4		
$\Delta$	-4.9	3.9	8.8		-7.1	-0.1	7.0		
Nunatsiavut	1996	2011	Δ	DDD	1996	2011	Δ	DDD	
Men	34.0	33.9	-0.1		54.2	60.7	6.5		
Women	39.3	44.0	4.7		52.5	58.3	5.8		
$\Delta$	5.3	10.1	4.8	4.0	-1.7	-2.4	-0.7	7.7	
Nunavut	1996	2011	Δ	DDD	1996	2011	Δ	DDD	
Men	48.3	42.3	-6.0		62.3	58.4	-3.9		
Women	43.5	44.2	0.7		54.4	54.9	0.5		
$\Delta$	-4.8	1.9	6.7	2.1	-7.9	-3.5	4.4	2.6	

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Inuvialuit region	1996	2011	Δ	DDD	1996	2011	Δ	DDD
Men	44.3	41.7	-2.6		61.6	59.6	-2.0	
Women	47.8	44.9	-2.9		58.1	54.3	-3.8	
$\Delta$	3.5	3.2	-0.3	9.1	-3.5	-5.3	-1.8	8.8

Source: CSLS calculations.

It can be shown that changes in the employment rate come from changes in the unemployment rate and changes in the labour force participation rate. Over time, it is possible to calculate the contribution of the change in the unemployment rate and the contribution of the change in the labour force participation rate to the overall change in the employment rate. In performing these calculations for Inuit Nunangat, it can be shown that 102 per cent of the change in the employment rate in Nunavik was the result of changes in the labour force participation rate (Table 46). Nunatsiavut and the Inuvialuit region also saw extremely large contributions from the labour force participation rate.

Table 46: Decomposition of Growth in the Employment Rate, Inuit Nunangat, 1996-2011

	Contribution of the unemployment rate	Contribution of the labour force participate rate	Contribution from the interaction term	Sum of all contributions
Inuit Nunangat	106.62	-6.74	0.12	100.00
Nunatsiavut	-94.24	205.42	-11.18	100.00
Nunavik	-1.93	102.06	-0.12	100.00
Nunavut	51.63	49.87	-1.50	100.00
Inuvialuit Region	-5.79	105.47	0.32	100.00
Inuit Nunangat excluding Nunavik	58.17	43.04	-1.21	100.00

Source: CSLS calculations.

It is also possible to calculate how much of the change in the labour force participation rate over the 1996-2011 period is the result of changes in the female labour force participation rate and the male labour force participation rate. It is important to point out that the results will not be exactly additive due to the fact that the contributions from males and females are calculated using their respective shares of the labour force in 2011 as weights. Since we are interested in contributions to the change over the 1996-2011 period, there will be error introduced through the use of a static share as a weight. 28 Table 47 shows that 98 per cent of the change in the labour force participation rate in Nunavik is the result of changes in the female labour force participation rate. No other region saw such a large contribution from female labour force participation.

<sup>&</sup>lt;sup>28</sup> The results have also been calculated using labour force shares from 1996 and average labour force shares from 1996 and 2011. These are available upon request. The conclusions are not substantially different for the regions independently, but the results for Inuit Nunangat as a whole are quite sensitive to the use of different labour force shares as weights.

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Table 47: Decomposition of Growth in the Labour Force Participation Rate by Gender, Inuit Nunangat, 1996-2011

	Male (%)	Female (%)	Sum
Inuit Nunangat	-1526.77	1568.68	41.91
Nunatsiavut	51.67	49.25	100.93
Nunavik	3.65	97.85	101.49
Nunavut	120.66	-13.35	107.31
Inuvialuit Region	32.27	65.02	97.28
Inuit Nunangat excluding Nunavik	119.28	-14.63	104.65

Source: CSLS calculations.

With these two results, it is possible to show that 98 per cent of the change in the employment rate in Nunavik between 1996 and 2011 was the result of changes in the female labour force participation rate. If we make certain assumptions about the contributions of child care to increases in female labour force participation, we can provide estimates of the importance of child care to the observed changes in the employment rate in Nunavik over the 1996-2011 period. For example, suppose child care availability and cost accounted for 50 per cent of the rise in female labour force participation. This would imply that approximately 49 per cent of the increase in the employment rate in Nunavik over the 1996-2011 period was the result of child care availability and cost. By using this same logic for the other regions, which did not have similar child care availability and cost structures, we could provide an estimate for the importance of child care in explaining differences between Nunavik and any of the other three Inuit Nunangat regions in terms of employment rate growth over the 1996-2011 period. Since providing these estimates would require assumptions for which we do not have reasonable priors, we do not perform them in this report. It would be interesting to undertake further quantitative research in this area.

It is also possible to crudely estimate how much Nunavik's female labour force participation rate is responsible for Nunavik's relatively strong overall labour force participation rate. In particular, if we assume that Nunavik has the weighted average female labour force participation rate of Inuit Nunangat excluding Nunavik and their actual male labour force participation rate, then the labour force participation rate of the overall population would be 60.1 per cent, compared to its actual rate of 64.8 per cent. Using a simple exercise, we find that Nunavik's superior female labour force participation rate explains 60.2 per cent of Nunavik's superior labour force performance in 2011.

In addition to the crude estimate shown above, we can also estimate the impact of Quebec's low fee child care program on the employment of mothers by replicating the results from previous research. For example, Fortin, Godbout and St-Cerny (2012) show that Quebec's low fee child care program allowed 69,700 more mothers to hold jobs in 2008, subsequently raising total female employment by 3.79 per cent and total Quebec employment by 1.78 per cent. Using the same methodology, it can be shown that approximately 88 more mothers in Nunavik could work in 2006, increasing female employment by 3.98 per cent and overall employment in Nunavik by 1.93 per cent.<sup>29</sup>

<sup>&</sup>lt;sup>29</sup> The methodology is as follows: in 2006, there were 565 mothers in Nunavik whose youngest child was 0-5 years, while there were 290 mothers in Nunavik whose youngest child was 6 to 14 years. According to Lefebvre, Merrigan and Roy-Desrosiers (2011), there was a 12.0 per cent increase in the employment rate of Quebec mothers with

In summary, the evidence presented above shows that Quebec's low-fee child care policies and the increased availability of child care were important contributors to Nunavik's strong labour market outcomes. By our estimates, 98 per cent of the change in the employment rate in Nunavik between 1996 and 2011 was the result of changes in the female labour force participation rate. Furthermore, in 2006, we estimate that female employment increased by 3.98 per cent in Nunavik as a result of this child care policy and increased child care space.

Clearly, child care policies in Québec have significantly contributed to lowering the barrier to employment for female Inuit in Nunavik. In contrast, child care availability and costs may still be acting as a barrier to female labour force participation in Nunavut and the Inuvialuit region, and to a lesser degree in Nunatsiavut.<sup>30</sup>

### V. Conclusion

Nunavik's employment rate and labour force participation rate exceed those of the other three Inuit Nunangat regions, even though Nunavik has the weakest educational attainment levels. This paradox was first identified by Palesch (2016) and this report showed that this paradox has been a characteristic of Inuit Nunangat since 1996.

Unearthing the explanations for this paradox may provide clear policy prescriptions for the rest of the Inuit Nunangat regions and other Aboriginal groups with low educational attainment, helping them boost their labour market outcomes to match those seen in Nunavik.

The first challenge was determining whether Nunavik's educational attainment-labour market outcomes paradox was purely a statistical anomaly caused either by poor data quality or different underlying demographic structures. The first issue was addressed by examining global non-response rates for Inuit Nunangat. This report shows that the global non-response rates for a significant majority of the Inuit Nunangat regions are lower than the global non-response rate for Canada, which suggests that the risk of inaccuracy caused by data quality is actually lower in Inuit Nunangat than in Canada. The second issue was addressed by generating age and educational attainment standardized employment, unemployment and labour force participation rates across Inuit Nunangat. These hypothetical rates showed that after controlling for age, the labour market performance of the other three Inuit Nunangat regions remained unchanged. After

children aged 0 to 5 years as a result of the low-fee child care program over the 2006-2007 period. Furthermore, according to Lefebvre, Merrigan and Verstraete (2009), there was a 7.0 per cent increase in the employment rate of Quebec mothers with children aged 6 to 11 years as a result of the low-fee child care program in 2004. Following Fortin, Godbout and St-Cerny (2012), we apply these estimates to the total number of mothers in Nunavik with children aged 0 to 5 years and 6 to 14 years in 2006. This assumes that these estimates are valid for 2006, and that the estimates for mothers with children aged 6 to 11 years are also applicable to mothers with children aged 6 to 14 years because we could only obtain data for 2006, and we could not obtain estimates for mothers with children aged 6 to 11 years in Nunavik. To determine the number of mothers in Nunavik in 2006 by age group of child, we used Statistics Canada 2006 Census Series 97-553-XCB2006023.

<sup>&</sup>lt;sup>30</sup> It is important to note that despite the potential positive side effects for women from Quebec's low-fee child care policy, there may also be potential negative consequences for long-run labour supply. In particular, a recent paper by Gruber, Mulligan and Baker (2015) showed that Quebec's low-cost child care system causes harm to children's noncognitive skills.

controlling for educational attainment, the labour market performance of the Inuvialuit region and Nunavut also remained unchanged, while the labour market performance of Nunatsiavut declined. Hence, the demographic structure of the four regions cannot explain the strong labour market performance in Nunavik relative to Nunatsiavut, Nunavut and the Inuvialuit region.

Since data quality and the underlying demographic structure of the populations of the Inuit Nunangat regions are not explanations, this report also provides evidence regarding other potential factors behind Nunavik's paradoxical labour market outcomes.

One major area of investigation was funding. If Nunavik receives a level of per capita funding above and beyond that received by the other three regions, it could be argued that this explains some of Nunavik's strong labour market performance despite poor educational attainment. Data from the Aboriginal Skills and Employment Training Strategy (ASETS) and the Skills and Partnership Fund (SPF) does suggest that agreement holders in Nunavik receive funding (on a per Inuit person basis) above and beyond the funding received by agreement holders in the Inuvialuit region and Nunavut. However, Nunatsiavut receives a higher level of funding per Inuit person than Nunavik. Hence, funding may explain part of Nunavik's strong labour market performance relative to two of the Inuit Nunangat regions, but it cannot explain its strong performance relative to Nunatsiavut.

Nevertheless, data from other types of social programs, such as health care and education, suggest that Nunavik does receive funding over and above the funding received by the other three Inuit Nunangat regions on a per capita basis, which provides some evidence for the argument that higher levels of funding for social programs have boosted the labour market performance of Nunavik relative to the other three regions. It is important to note, however, that the link between these programs, especially health care, and labour market performance, is much weaker than the link between employment training funding and labour market performance. Therefore, it is unlikely that funding for these programs alone can explain the entirety of Nunavik's strong performance.

The second major area of interest was the employment structure of the four areas of Inuit Nunangat. If Nunavik has a substantially different employment structure than the other three regions, it could be possible that the job opportunities in Nunavik more closely match the educational attainment of the Inuit in Nunavik. Using data from the 2011 National Household Survey, this report showed that Nunavik has a much higher share of the experienced labour force in public administration, health care and social assistance and educational services (66.6 per cent) than Inuit Nunangat as a whole (53.5 per cent) or any of the other three Inuit Nunangat regions. Since these industries are not characteristically populated by individuals with low educational attainment, it is not immediately clear how this fact might explain Nunavik's strong labour market performance. However, we believe that the Governments of Nunavik, Quebec and Canada are providing more jobs for the Inuit in Nunavik than the other governments and regional corporations are providing for the Inuit in their respective regions. This is definitely an area worth investigating in the future.

It was also shown that there is a higher share of Inuit in the experienced labour force for all twenty two-digit NAICS industries in Nunavik than in Inuit Nunangat as a whole. This

suggests that employers in Nunavik may simply be more willing to hire Inuit employees than employers in other Inuit Nunangat regions. This could be the result of (1) stronger Impact and Benefit Agreements (IBAs), (2) the James Bay Agreement, (3) more awareness of equity issues, or (4) population compositions.

This report also discusses whether barriers to employment in Nunavik are lower than in the other three Inuit Nunangat regions. The five barriers to employment that we focused on were housing, costs of living, infrastructure, mental and physical health, and child care.

Poor quality housing and limited availability can negatively impact labour force participation by creating situations that lead to anxiety and stress, violence and crime, and mental and physical health concerns. These are all known to limit an individual's ability to participate in the labour market. Thus, if Nunavik has a higher quality of housing or more housing available per person, this could explain Nunavik's strong labour market performance, despite poor educational attainment. However, using data from the 2011 National Household Survey and the 2006 Census, this report showed that housing conditions in Nunavik are actually worse than housing conditions in the other three Inuit Nunangat regions, so this does not explain Nunavik's paradox. It actually presents a new paradox.

Social housing costs are another component of housing conditions, especially since the rent scales associated with social housing often increase as income increases, creating disincentives to employment. However, Nunavik's rent scale is structured slightly differently than the rent scales of the other three regions. In particular, Nunavik's rent scale has a maximum above which an individual's monthly rent cannot rise, no matter how much their annual income increases. Thus, it is possible that Nunavik's labour market performance is slightly stronger than the other three regions in Inuit Nunangat because Nunavik has much lower disincentives to employment due to public housing rent scales than Nunatsiavut, Nunavut and the Inuvialuit region. In addition, Nunavik has lower shares of the population in subsidized housing than the other three Inuit Nunangat regions.

Exorbitant costs of living have an ambiguous impact on labour force participation. For example, by negatively impacting an individual's mental and physical health, high costs of living can draw down on the available labour force, but by encouraging young adults to forego additional education and enter the labour market early, high costs of living can boost the available labour force. However, the available data show that Nunavik has average costs of living relative to Nunavut, Nunatsiavut and the Inuvialuit region. Hence, unless Nunavik responds to the high costs of living differently than the rest of the Inuit Nunangat regions, this factor cannot explain the educational attainment-labour market outcomes paradox in Nunavik.

Limited and low quality infrastructure can inhibit labour force participation through a number of different channels. There are a number of different types of infrastructure, including housing, transportation, telecommunications, health, and social infrastructure, but unfortunately, child care centre infrastructure needs were the only data that were available for all four regions. According to the available data, Nunavik's social infrastructure needs were not any less or more severe than the rest of the Inuit Nunangat regions, so it is unlikely that infrastructure quality and availability can explain Nunavik's strong labour market performance despite its poor educational

attainment. However, given the lack of available data on the other types of infrastructure, this is still an area that requires additional investigation.

Poor mental and physical health can prevent labour force participation. If Nunavik has better mental and physical health outcomes than the rest of the Inuit Nunangat regions, this could potentially explain the paradoxical labour market outcomes observed in Nunavik. Data on mental and physical health, however, did not show that Nunavik had a better health profile than the other three regions. In fact, many of the health indicators showed that Nunavik had a similar or worse health profile in 2012 than Nunavut, Nunatsiavut and the Inuvialuit region. Hence, mental and physical health is not a factor that can explain Nunavik's relatively strong labour market performance. Physical and mental health may actually present another paradox.

This report also reviews the role of child care. In the late-1990s, two important child care policies were passed. The First Nations and Inuit Child Care Initiative provided funding to increase the number of available child care spaces for Aboriginal Canadians across Canada. In addition, the Québec Government passed its low-fee child care policy, which provided child care for \$5 a day. If these child care policies made child care more accessible or more affordable in Nunavik than in the rest of Inuit Nunangat, then it may have caused Nunavik's female labour force participation to increase above and beyond the levels seen in the other regions.

Using data on the availability and cost of child care and female labour force participation, it was shown that as child care costs fell, the number of available child care spaces in Nunavik rose. It was also shown that the number of child care spaces in Nunavik far outnumbered the number of available spaces in the Inuvialuit region, Nunavut, and Nunatsiavut, while child care costs were much lower than in the Inuvialuit region and Nunavut. Finally, it was shown that female labour force participation in Nunavik increased significantly between 1996 (prior to the full implementation of both policies) and 2011. During this time period, male labour force participation rates stagnated in Nunavik, female labour force participation rates in the Inuvialuit region fell, and female labour force participation rates were unchanged in Nunavut. The only other region to show an increase in female labour force participation during this period was Nunatsiavut, which also had relatively low daily child care fees.

These results indicate that increasing the availability and lowering the cost of child care can have significant impacts on female labour force participation. Hence, Nunavik's strong labour market performance, despite poor educational attainment, is clearly driven in part by the child care policies that were implemented in the late-1990s that led to both lower costs and increased availability relative to the rest of Inuit Nunangat.

## VI. Future Research Areas

A number of future research areas have been suggested throughout this report. These suggestions are listed below, along with a number of other ideas that arose during the research process:

• Given the high share of the experienced labour force in Nunavik in public administration, health care and social assistance, and educational services, it would be interesting to

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obtain data on occupations to ascertain which occupations are responsible for the highest share of Nunavik's large public sector. Is it daycare employment? These data would help us determine if there is an overabundance of low-level positions and subsequently if Nunavik's regional government is simply creating jobs for its population. It would also help us make the connection between the two factors that we deem the most important explanations for the paradox. Moreover, future research should focus on investigating if there are normative expectations or even explicit agreements within Nunavik (or the other three Inuit Nunangat regions) committing to the provision of jobs for the population.

- Given the importance of funding for the provision of social programs, it would be interesting to obtain a detailed breakdown of the revenues and expenditures of the four Inuit Nunangat regions. This would help us determine if Nunavik and Nunatsiavut are actually privy to additional funding above and beyond the two regions that are located within territories.
- Given the importance of discretion in the use of funding, it would be interesting to examine how much freedom the four Inuit Nunangat regions are given in the implementation of their social programs. In particular, is funding that Nunavik receives conditional on the delivery of certain social programs or is Nunavik given discretion over the use of its funding? Do the other three regions have similar arrangements or are they under more conditional agreements? It would also be interesting to investigate whether programs and services are better organized and more easily accessible in Nunavik relative to the other three Inuit Nunangat regions.
- Since the rights and responsibilities of the various regions are vastly different, future research should focus on detailing the similarities and differences in the self-government structures that exist in the four Inuit Nunangat regions. Are all four regions responsible for the delivery of health care services? Educational services? Public transportation? Which regions are given more rights and responsibilities by their respective provincial and/or federal governments?
- Given the massive increase in female labour force participation and the stagnation or decline of male labour force participation, it would be interesting to investigate if there was perhaps a substitution between men and women in the workforce. Are women crowding men out of the labour force?
- Given the suggestion that Nunavik's social housing rental scale does not carry the same disincentives to employment as the rent scales in the other three Inuit Nunangat regions, it would be interesting to know how many families are paying the maximum rent in Nunavik and subsequently not subject to rent increases and income increases. Furthermore, it would be interesting to quantify the marginal effective tax rates that arise from the implicit increases in monthly rent as income increases in the other three regions. It would also be interesting to examine if poor quality housing in Nunavik generates the same labour market response as poor quality housing in the other three Inuit Nunangat regions.
- Given the lack of data on infrastructure needs, it would be interesting to collect measures, either subjective or objective, about the quality and availability of infrastructure in the four Inuit Nunangat regions.
- It was shown in this report that there is a large gap between the educational attainment and labour market outcomes of the Inuit in Nunavik and the on-reserve First Nations population. It would be interesting to investigate the factors driving these results. It is

important to point out, however, that these are very distinct social groups who have faced many different historical obstacles and inhabit very different geographical locations in Canada. These factors, which are impossible to quantify, could potentially explain the majority of this gap.

- It was shown that approximately 98 per cent of the increase in the employment rate in Nunavik over the 1996-2011 period was the result of increases in the female labour force participation rate during this time period. It would be worthwhile to determine to what extent child care has contributed to this increase in female labour force participation and to what extent other factors, like the availability of jobs and the crowding out of males, have led to this increase.
- Since labour supply depends on the real wage, not only on the price level, it would be
  interesting to add information on nominal wages to determine how these differ across the
  four Inuit Nunangat regions.
- It was suggested that there is lower productivity in Nunavik than in the other three Inuit Nunangat regions. It would be helpful to understand the factors behind this difference.
- In discussions with key informants, it was also suggested that crime statistics could be useful in illuminating potential differences between Nunavik and the rest of the Inuit Nunangat.
- In the future, it will be necessary to also check whether there could be confounding factors that would exaggerate the impact of low-fee child care.

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# VIII. Appendix Tables

Appendix Table 1: Experienced Labour Force (15+) by Industry, Inuit Population, Inuit Nunangat, 2001, 2006 and 2011

	Nunavik			Nunatsiavut			Nunavut			Inuvialuit Region			Inuit Nunangat		
	2001	2006	2011	2001	2006	2011	2001	2006	2011	2001	2006	2011	2001	2006	2011
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture, forestry, fishing and hunting	1.4	0.7	0.2	4.3	4.8	3.6	1.5	1.3	0.8	2.1	1.6	2.0	1.7	1.4	0.9
Forestry and logging	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Fishing, hunting and trapping	1.2	0.7	0.2	4.3	4.2	3.1	1.5	1.2	0.8	1.3	1.2	1.6	1.6	1.3	0.8
Support activities for mining and oil and gas extraction	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Other agriculture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Mining, quarrying, and oil and gas	3.6	2.7	3.0	0.0	10.3	4.1	2.0	2.4	4.0	5.1	3.1	1.2	2.6	2.9	3.5
Oil and gas extraction	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.1	0.0	2.1	1.2	0.0	0.2	0.2	0.0
Mining and quarrying	3.6	2.2	2.9	1.2	7.9	1.5	1.5	1.8	3.1	0.9	0.0	0.0	1.9	2.1	2.8
Support activities for mining and oil and gas extraction	0.0	0.4	0.0	1.2	1.2	2.1	0.5	0.5	0.8	2.1	2.3	0.8	0.5	0.7	0.7
Utilities	2.9	1.7	2.3	2.5	1.8	2.1	2.7	2.4	1.9	1.7	1.2	2.0	2.6	2.1	2.1
Construction	2.9	2.1	1.8	8.0	7.3	8.2	6.8	6.5	8.4	14.5	9.3	12.2	6.6	5.7	6.9
Manufacturing	0.3	0.4	0.6	6.1	7.3	2.6	2.3	1.5	1.1	1.7	0.8	0.0	2.0	1.5	1.0
Wholesale trade	0.7	0.6	0.7	1.2	1.2	0.0	0.6	0.7	0.8	1.7	2.7	1.6	0.8	0.8	0.9
Retail trade	11.9	10.8	9.8	8.6	8.5	9.7	14.1	13.6	13.5	8.1	9.7	9.8	12.6	12.2	12.0
Transportation and warehousing	5.9	6.6	5.5	3.1	3.0	3.6	5.3	5.3	6.0	6.0	7.8	8.3	5.3	5.7	5.9
Information and cultural industries	1.7	1.5	1.4	0.0	1.8	1.0	2.2	2.0	1.4	0.9	0.8	0.8	1.8	1.7	1.3
Finance and insurance	0.8	0.3	0.2	0.0	0.0	0.0	0.3	0.5	0.4	0.9	0.0	0.8	0.4	0.3	0.3
Real estate and rental and leasing	1.4	1.3	1.9	0.0	0.0	1.0	3.6	3.4	3.9	2.1	5.4	3.1	2.7	2.9	3.1
Professional, scientific and technical services	0.5	0.6	0.6	1.8	3.0	1.5	1.4	1.5	1.1	2.6	3.1	2.0	1.2	1.4	1.1
Management of companies and enterprises	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.8	0.1	0.1	0.1
Administrative and support, waste management and remediation services	1.2	3.1	1.4	1.2	0.0	1.0	2.3	2.7	2.5	3.8	3.9	3.5	2.1	2.9	2.2
Educational services	15.4	14.5	13.9	8.6	6.7	7.7	12.1	11.5	8.4	6.8	5.4	5.9	12.2	11.4	9.6
Health care and social assistance	20.7	25.3	24.8	19.0	14.5	11.8	9.5	9.0	7.9	12.8	10.5	11.0	13.1	13.6	13.0
Arts, entertainment and recreation	1.4	1.4	2.3	1.2	1.2	1.0	3.9	3.1	2.2	1.3	3.5	2.8	2.9	2.6	2.2
Accommodation and food services	3.1	2.1	2.9	4.9	6.1	5.6	3.6	4.0	4.3	4.7	5.8	2.8	3.7	3.8	3.9
Other services (except public administration)	1.5	2.1	1.9	13.5	3.6	3.1	3.1	3.3	2.6	4.3	4.3	3.9	3.5	3.0	2.6
Public administration	22.6	22.6	24.7	16.6	20.0	31.3	22.9	25.4	28.4	19.2	21.0	25.6	22.0	24.0	27.4
Federal government public administration	0.7	0.7	0.5	3.7	3.0	3.1	1.8	2.1	2.3	2.6	2.3	2.8	1.8	1.8	1.9
Provincial and territorial public administration	0.5	0.7	0.4	1.2	3.6	5.6	6.4	12.5	12.5	5.1	6.2	7.9	4.5	8.5	8.4
Local, municipal and regional public administration	20.9	7.7	17.2	11.0	7.9	9.7	14.5	10.9	9.8	9.8	1.6	8.3	15.3	9.1	11.6

Note: the breakdown of public administration is not additive due to small sample sizes.

Source: Special order of data from Statistics Canada based on the 2001 Census, the 2006 Census and the 2011 NHS.

Appendix Table 2: Inuit Share of Total Experienced Labour Force (15+) by Industry, Inuit Nunangat, 2001, 2006 and 2011

	Nunavik			Nunatsiavut			Nunavut			Inuvialuit Region			Inuit Nunangat		
	2001	2006	2011	2001	2006	2011	2001	2006	2011	2001	2006	2011	2001	2006	2011
Total	80.4	82.2	80.0	70.9	82.1	83.3	71.0	70.5	70.7	46.4	43.9	44.6	69.4	69.7	70.2
Agriculture, forestry, fishing and hunting	114.3 <sup>1</sup>	83.3	100.0	87.5	88.9	87.5	95.8	100.0	93.3	83.3	80.0	100.0	93.5	92.9	90.0
Forestry and logging															
Fishing, hunting and trapping	87.5	100.0	100.0	87.5	77.8	$120.0^{2}$	100.0	95.2	93.3	75.0	75.0	100.0	95.2	94.9	92.3
Support activities for mining and oil							100.0			0.0	0.0		100.0	0.0	0.0
and gas extraction								••	••	0.0	0.0	••			
Other agriculture							0.0						100.0	100.0	100.0
Mining, quarrying, and oil and gas	95.5	95.0	96.2	0.0	94.4	88.9	76.9	95.2	97.3	66.7	72.7	60.0	82.3	91.2	95.6
Oil and gas extraction					100.0					62.5	75.0		62.5	83.3	
Mining and quarrying	100.0	94.1	100.0		86.7	75.0	74.2	96.8	96.6	66.7	0.0	0.0	82.5	95.2	96.6
Support activities for mining and oil		100.0			100.0	100.0	100.0	90.0	93.8	83.3	100.0	100.0	85.7	86.4	87.5
and gas extraction															
Utilities	89.5	92.3	90.5	100.0	100.0	$133.3^{3}$	82.0	75.9	74.5	44.4	30.0	55.6	79.3	74.7	79.0
Construction	85.0	83.3	83.3	92.9	85.7	88.9	72.3	77.5	81.7	61.8	44.4	44.3	71.3	70.2	73.8
Manufacturing	66.7	100.0	100.0	100.0	92.3	71.4	91.9	83.9	83.3	100.0	66.7		90.7	85.7	91.2
Wholesale trade	80.0	100.0	85.7		100.0	0.0	60.0	63.2	71.4	36.4	46.7	40.0	61.3	61.5	71.8
Retail trade	86.4	89.5	88.0	70.0	82.4	79.2	81.2	82.1	81.6	46.3	51.0	46.3	77.5	79.9	79.0
Transportation and warehousing	83.3	87.0	90.2	71.4	83.3	87.5	65.0	65.4	72.7	40.0	46.5	55.3	64.9	67.8	74.1
Information and cultural industries	83.3	84.6	85.7		100.0	66.7	71.7	71.7	65.8	20.0	18.2	33.3	66.7	68.1	69.5
Finance and insurance	83.3	100.0	100.0		0.0		33.3	42.1	42.1	33.3	0.0	50.0	44.0	39.1	41.7
Real estate and rental and leasing	88.9	75.0	88.9			100.0	81.8	77.0	78.9	38.5	53.8	50.0	75.6	71.7	76.6
Professional, scientific and technical	75.0	80.0	55.6	42.9	$125.0^{4}$	75.0	52.5	50.0	47.6	37.5	47.1	35.7	47.0	51.9	50.7
services	75.0	00.0	33.0	12.7	125.0	75.0					17.1				
Management of companies and enterprises		••				••	100.0	100.0	0.0	0.0	••	100.0	75.0	66.7	66.7
Administrative and support, waste	87.5	95.7	92.3	100.0		50.0	75.6	73.0	75.4	60.0	55.6	75.0	74.3	76.4	76.7
management and remediation services															
Educational services	65.5	68.0	66.5	40.0	45.8	51.7	63.4	63.4	61.3	33.3	28.6	26.8	59.7	60.6	58.7
Health care and social assistance	76.3	82.6	78.3	73.8	88.9	79.3	68.8	69.1	76.9	43.5	39.7	41.2	68.3	71.8	73.4
Arts, entertainment and recreation	80.0	90.9	100.0	66.7	100.0	100.0	88.1	86.7	83.0	60.0	69.2	63.6	85.7	86.0	82.7
Accommodation and food services	78.3	75.0	82.8	80.0	90.9	100.0	66.7	71.6	74.0	47.8	44.1	28.0	66.9	66.5	70.4
Other services (except public	75.0	78.9	72.7	88.0	85.7	75.0	72.3	68.8	71.2	41.7	44.0	45.5	69.8	66.2	66.9
administration)												45.5			
Public administration	86.9	85.7	80.7	75.0	84.6	91.0	67.2	65.3	61.2	47.4	41.2	45.5	69.1	66.7	65.0
Federal government public administration	66.7	100.0	80.0	60.0	62.5	66.7	42.9	42.7	37.5	31.6	33.3	25.9	45.4	45.1	38.6
Provincial and territorial public administration	75.0	55.6	23.1	100.0	85.7	100.0	49.7	59.2	51.7	33.3	30.8	38.5	47.5	56.0	50.4
Local, municipal and regional public administration	88.5	79.7	86.7	94.7	86.7	95.0	87.2	83.6	84.7	74.2	36.4	70.0	87.0	81.8	84.7

<sup>&</sup>lt;sup>1</sup> This results from estimates of 35 people in total but 40 Inuit in this industry. There are no persons of other identities in this industry. <sup>2</sup> This results from estimates of 25 people in total but 30 Inuit in this industry. There are no persons of other identities in this industry. <sup>3</sup> This results from estimates of 15 people in total but 20 Inuit in this industry. There are no persons of other identities in this industry.

<sup>&</sup>lt;sup>4</sup> This results from estimates of 20 people in total but 25 Inuit in this industry. There are no persons of other identities in this industry. Source: Special order of data from Statistics Canada based on the 2001 Census, the 2006 Census and the 2011 NHS.