
Nunavut Tunngavik Incorporated (NTI)

The Cost of Not Successfully Implementing Article 23: Representative Employment for Inuit within the Government

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1. Executive Summary

Article 23 of the Nunavut Agreement stipulates that Inuit should be represented in employment in the Nunavut government to the same level that they are represented in the population of Nunavut. Currently 84% of the Nunavut population is Inuit, but Inuit hold only 51% of filled jobs in the territorial and federal governments in Nunavut.

This report estimates the loss to the Inuit, and to the Nunavut and Canadian governments that is incurred due to not fulfilling Article 23. We do this by projecting a “baseline scenario,” where the status quo continues, and an “alternative scenario,” where Article 23 is fulfilled. The difference between these two scenarios represents the cost of not fulfilling Article 23.

In calculating our estimates, we took a number of factors into consideration, including:

- Inuit will earn more income in the alternative scenario than in the baseline scenario, because they will occupy relatively high-paying government jobs instead of working in the private sector or being unemployed;
- In the alternative scenario, the government will experience significant savings from a number of sources;
- Due to the higher incomes that will be earned by Inuit, income tax revenues will be higher; and
- Employment Insurance, Income Assistance and Social Housing payments will be lower in the alternative scenario than in the baseline scenario.

The table below itemizes our estimated costs of not fulfilling Article 23 for the years 2017-2023. The total loss to the Inuit over this time is \$1,283,922,116, and the cost to the governments is approximately 40% of that.

Table 1: Estimates Losses from Not Fulfilling Article 23, 2017-2023

Types of Losses	Estimated Total (2017-2023)
Lost Wages to the Nunavut Inuit Population	\$1,283,922,116
Foregone Housing Costs	\$277,579,485
Foregone Employment Insurance Spending	\$24,674,693
Savings on Income Assistance	\$68,362,199
Increases in Tax Revenue	\$148,868,593
Total Losses to the Government	\$519,484,971

It is important to note that under the alternative scenario there will be a number of benefits that will be enjoyed by Inuit that we do not quantify in this report including:

- Greater control over policy decisions;
- Improved health outcomes; and
- Higher quality public services.

2. Introduction

In May of 1993 the Nunavut Agreement (“Agreement”) was signed between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada.¹ The Agreement is the document responsible for creating the territory of Nunavut, and stipulates Inuit rights on a wide array of issues including land and other resources, jobs, and wildlife. The Agreement is the largest indigenous land claim in history, and as such sets an important precedent for other indigenous people. Article 23 of the Agreement places certain responsibilities on the governments of Nunavut and Canada, Designated Inuit Organizations (“DIOs”), and the Inuit.²

We were asked by Nunavut Tunngavik Incorporated (“NTI”) to conduct a study that analyses the economic loss to the Inuit, and to the governments of Nunavut and Canada, of continued failure to meet the commitments outlined in Article 23.

Unless otherwise stated, all dollar figures in this report are reported in 2016 Canadian Dollars.

2.1. Overview of Article 23

As noted above, Article 23 refers to a provision in the Agreement. Article 23.2 of the Agreement states that “[t]he objective of this Article is to increase Inuit participation in government employment in the Nunavut Settlement Area to a representative level. It is recognized that the achievement of this objective will require initiatives by Inuit and by Government.” It is further recognized that “[i]n pursuit of this objective, Government and the DIO shall cooperate in the development and implementation of employment and training as set out in the Agreement.”

Thus, according to Article 23, Inuit should be represented in government employment at the same level as they are represented in the population. This requirement applies within all occupational groupings and grade levels.³ In 2015, Inuit represented 84% of the Nunavut population, therefore they must hold 84% of the government jobs. In this article, “government employment” refers to positions in the federal and territorial level governments. Figure 1 shows the representative levels of Inuit employment in the territorial government by staff level in 2016, as compared to the target representative level. As of 2016, the higher ranking positions are well below the target representation rate, and only the lowest ranking staff level (administrative support) is close to being represented.

Article 23 also stipulates a number of specific steps that governments must take in order to fulfil this commitment. Among others, these steps include on-the-job training programs, internships, and apprenticeships, as well as pre-employment training to help provide the skills necessary for government jobs.

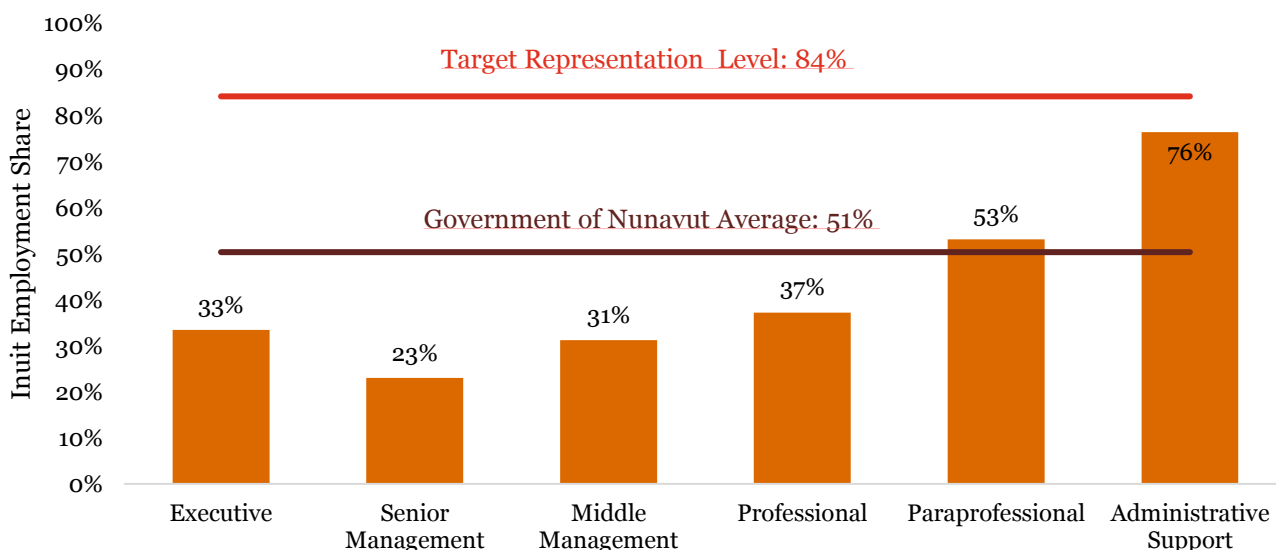
In 2016, the overall level of Inuit representation in the territorial government was 51%. However, as shown in Figure 1 below, representation was lower at higher staff levels. For example, staff at the administrative support level was 79% Inuit, representation among executives was just 33%. This is one reason why there is currently a significant wage gap between Inuit and non-Inuit employees within the territorial government. For the federal government, Inuit representation is not available by job level, but overall representation is lower than the territorial government at 41%.

¹ Indian and Northern Affairs Canada 2010

² Ibid, Section 23.2.1

³ Ibid, Section 23.1.1

Figure 1: 2016 Inuit Representation Levels in the Nunavut Government by Staff Level



2.2. General Approach

Our general approach for measuring the economic loss associated with the failure to meet the commitments made under Article 23 is based on comparing expected economic outcomes under a baseline scenario to the expected economic outcomes under a counterfactual scenario, where the commitments under Article 23 are fully met. To this end, we have developed a model that describes the counterfactual scenario. This model is based on simplified assumptions about the functioning of the labour market that will be elaborated later on. The difference in economic outcomes between these two scenarios is considered to be the economic loss of Article 23 not being fulfilled. Our study focuses on quantitative and quantifiable economic outcomes such as salaries and benefits, taxes, and social benefits. See Section 6 and Appendix A for limitations of this approach.

For the purpose of this report, economic outcomes under both situations are projected for the next six years up to and including 2023, the year of the next review of the Nunavut Agreement.

2.3. Scope of Review

This analysis was prepared using internal (i.e. PwC) and external data sources, contextual discussions with NTI's staff, and our own secondary research. A complete list of the documents and sources we have reviewed is presented in Appendix A.

2.4. Limitations

Data limitations: PwC has relied upon the completeness, accuracy, and fair presentation of all information and data obtained from the various sources set out in Appendix A, which were not audited or otherwise verified. The findings in this report are conditional upon such completeness, accuracy, and fair presentation, which have not been verified independently by PwC. Accordingly, we provide no opinion, attestation or other form of assurance with respect to the results of this study.

Where the information or data provided is not sufficient to conduct the analysis that has been requested, we have made assumptions, as set out throughout our report.

Receipt of new data or facts: Data for this report was collected between January and May 2017. PwC reserves the right, at its sole discretion, to withdraw or make revisions to this report should we receive additional data or be made aware of facts existing at the date of the report that were not known to us when we prepared this report. PwC is under no obligation to advise of such additional data to any person.

Use limitations: This Report has been prepared solely for the use and benefit of, and pursuant to a client relationship exclusively with NTI. We understand that NTI intends to make our report publicly available upon its submission. NTI can release this report only in its entirety and any commentary or interpretation in relation to this report that NTI intends to release to the public either requires PwC's written consent or has to be clearly identified as NTI's own interpretation of the report. PwC accepts no duty of care, obligation or liability, if any, suffered by NTI or any third party as a result of an interpretation made by NTI of this report.

Further, no other person or entity shall place any reliance upon the accuracy or completeness of the statements made herein. In no event shall PwC have any liability for damages, costs or losses suffered by reason of any reliance upon the contents of this Report by any person other than NTI.

This report and related analysis should be considered as a whole: Selecting only portions of the analysis or the factors considered by us, without considering all factors and analysis together, could create a misleading view of our findings. The preparation of our analysis is a complex process and is not necessarily susceptible to partial analysis or summary description. Any attempt to do so could lead to undue emphasis on any particular factor or analysis.

3. Descriptive Statistics

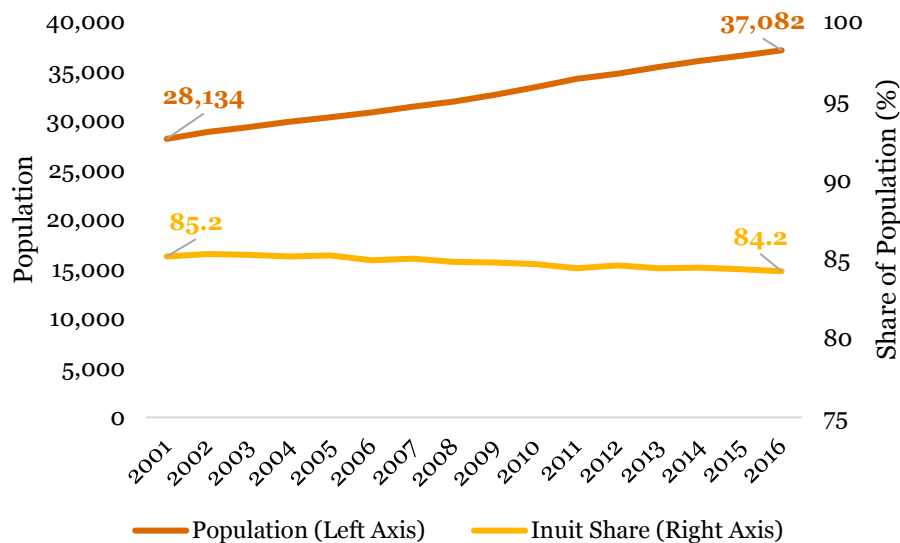
3.1. Census and Health Data

The territory and government of Nunavut, carved out of the Northwest Territories, came into existence in 1999, in conformity with the schedule legislated in the federal *Nunavut Act*, 1993. The following summary statistics trace social, demographic, and economic indicators as far back as possible in order to provide context for the employment model and projections.

Demographics

The population of Nunavut was 37,082 in 2016, and Inuit made up 84% of that population. Since 2001, the average population growth rate has been 1.9% and the population share of Inuit has declined slightly.

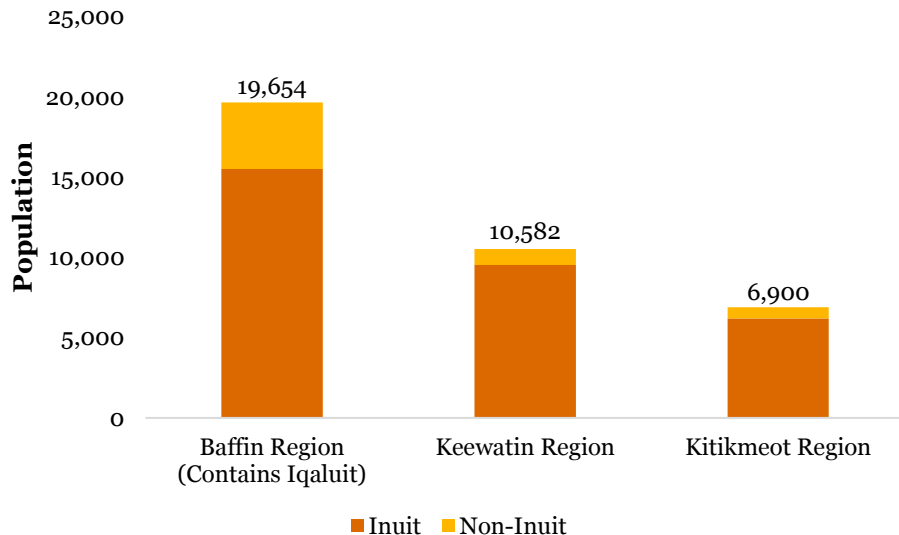
Figure 2: Population and Inuit Share of Nunavut⁴



Almost half of Nunavut’s population lives in the Qikiqtaaluk (Baffin) region, which includes the capital city Iqaluit. Inuit represent a higher share of the population outside larger centres, particularly Iqaluit, comprising around 90% of the population in the Kivalliq (Keewaitin) and Kitikmeot regions, compared to less than 80% in the Qikiqtaaluk region. Government employment is concentrated in Iqaluit, as it is the capital of the territory and a population and transportation hub.

⁴ Nunavut Bureau of Statistics “Nunavut Population Estimates by Inuit and Non-Inuit, Region and Community.”

Figure 3: Nunavut Population by Region, 2016⁵



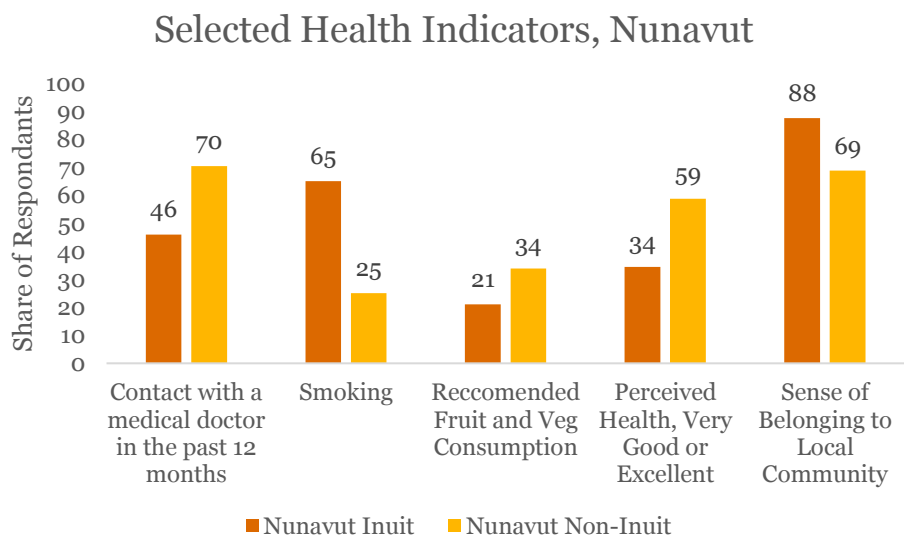
Health

It is widely accepted that economic marginalization can contribute to health problems. Indicators consistently show that Inuit in Nunavut experience worse health outcomes than non-Inuit in Nunavut. It is reasonable to conclude that these figures reflect, in part, the high degree of economic marginalization experienced by Inuit in Nunavut. For example, compared to non-Inuit⁶ people in Nunavut, Inuit in Nunavut are less likely to have a regular medical doctor or have seen a medical doctor in the past year, more likely to smoke, less likely to eat five or more servings of fruit and vegetables a day, and less likely to report good health. On the positive side, Inuit are more likely than non-Inuit to report a sense of belonging to local community.

⁵ Nunavut Bureau of Statistics “Nunavut Population Estimates by Inuit and Non-Inuit, Region and Community.”

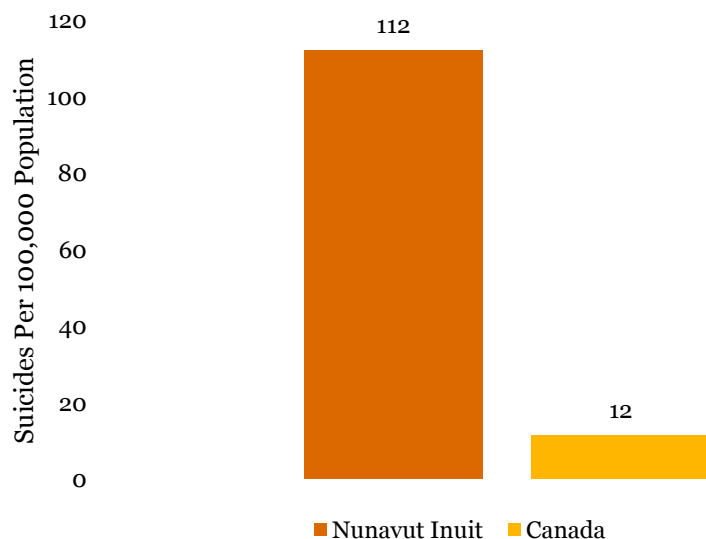
⁶ The Statistics Canada Community Health Survey reports results for Inuit and non-Indigenous people, but as the number of non-Inuit Indigenous people is very small, we can assume that the figures for non-Indigenous people represent the non-Inuit population as a whole.

Figure 4: Selected Health Indicators, 2011-2014⁷



In addition to relatively poor health, Inuit in Nunavut have a much higher suicide rate than Canadian average. In 2013, there were 112 suicides per 100,000 population, more than nine times the overall rate for Canada.

Figure 5: Suicide Rates in Canada and Nunavut, 2013⁸



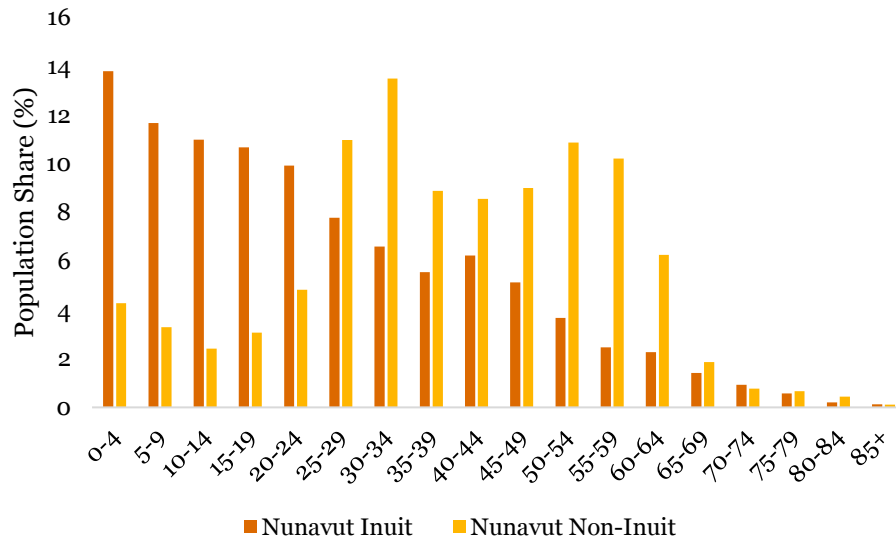
⁷ Statistics Canada, Canadian Community Health Survey (CCHS). The CANSIM table 105-0515 is an update of CANSIM table 105-0513. Estimates are from a survey conducted between 2011 and 2014, with the exception of “contact with a doctor,” which is from 2007-2010.

⁸ For Nunavut: Office of the Chief Coroner of Nunavut, 5 year rolling average. For Canada: Statistics Canada CANSIM Table 102-0552 Deaths and mortality rate, by selected grouped causes and sex, Canada, provinces and territories.

3.2. Demographics/Age Structure

The age structure of Inuit in Nunavut is substantially different than that of non-Inuit. As the chart below shows, the Inuit population is significantly younger and, given this structure, is expected to continue growing at a faster rate than the non-Inuit population. 36% of the Inuit population is under the age of 15, compared to just 10% of the non-Inuit population.

Figure 6: Age distribution by Ethnicity, Nunavut 2011⁹



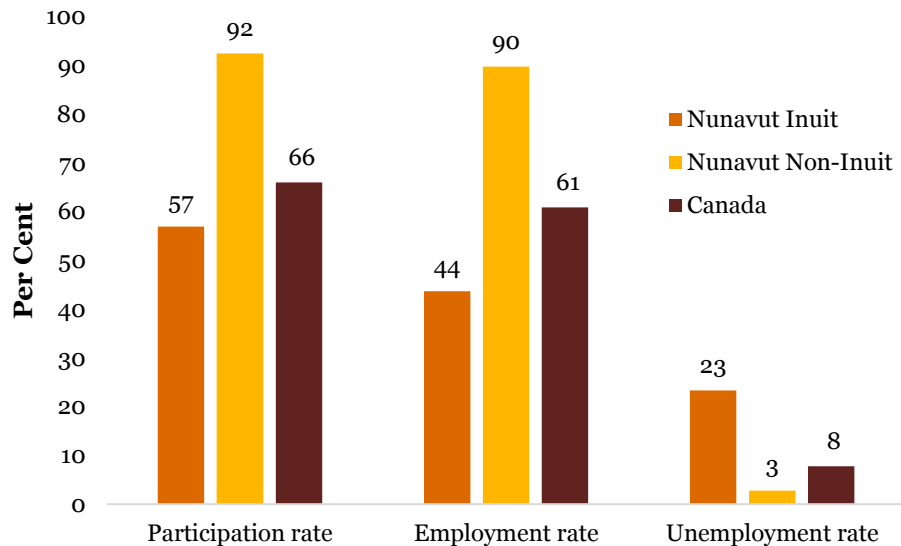
3.3. The Nunavut Labour Market

The following section summarizes conditions in the Nunavut labour market and highlights some challenges faced by Inuit. Overall, Inuit have lower participation rate in the formal¹⁰ labour force, higher unemployment as conventionally defined, and lower earnings than non-Inuit. In this regard, we note that according to numerous studies, many negative outcomes are associated with lack of employment. In addition to reduced income, those with low labour market attachment may suffer negative health and social outcomes.

⁹ National Household Survey 2011

¹⁰ These figures are based on the Statistics Canada Labour Force Survey. This survey asks about paid work and does not capture informal employment such as hunting and trapping.

Figure 7: Labour Market Outcomes, 2011¹¹



The low labour force participation and high unemployment of Inuit contribute to a relatively low employment rate of 44%, 17 percentage points below the Canadian average. Research suggests that this low employment rate is a key driver of negative outcomes in the areas of food security, housing, health conditions, and social interactions. Overall, labour market outcomes are significantly worse for Inuit in Nunavut compared to both non-Inuit in Nunavut and Canadians as a whole. The high participation rate and low unemployment rate of non-Inuit in Nunavut reflect the fact that many non-Inuit move to Nunavut for a specific job. This fact also helps to explain why in the age chart above, the non-Inuit population of Nunavut is concentrated in working ages (25-64).

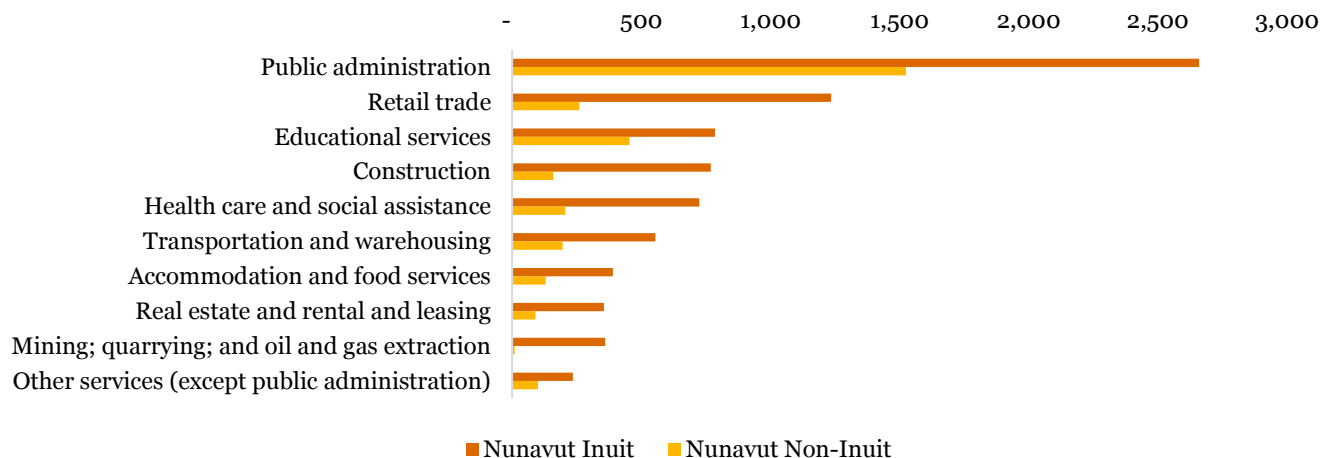
Industry

Public administration is the largest source of employment for both Inuit and non-Inuit in Nunavut. Overall, this sector represents 29% of Inuit employment and 43% of non-Inuit employment. Not only does public sector employment represent a significant source of jobs, on average these jobs pay significantly better than jobs in the private sector. According to the Survey of Employment, Payroll and Hours, the average salary in 2015 was \$75,312 in the public sector compared to \$58,322 in the private sector.¹²

¹¹ National Household Survey 2011

¹² Statistics Canada Survey of Employment, Payroll and Hours

Figure 8: Employees by Industry, Nunavut 2011¹³



Inuit are better-represented in the private sector than in the public sector. According to the National Household Survey (NHS), Inuit hold 77% of the jobs in the private sector compared to 64% of jobs in the public sector. We note that the NHS estimates of Inuit representation in the labour market are higher than what we observe in other datasets and may not match estimates used elsewhere in this report. Among the top ten industries by total employment, mining has the highest Inuit representation at 97% and educational services has the lowest representation at 63%. According to the NHS, Inuit made up 86% of the population and 72% of total employment in 2011.

Earnings

There are relatively few measures of Inuit income to compare with non-Inuit income. According to the 2011 NHS, the average after-tax income of an Inuit individual in Nunavut was \$29,489, compared to \$39,092 for a non-Inuit individual, a wage gap of 33%. On average, Inuit derive 19% of their income from government transfer payments, compared to 11% for non-Inuit. This includes income assistance, child benefits, and employment insurance.

According to the 2015/16 Government of Nunavut report, Inuit employees of the territorial government earned \$80,067 on average, compared to \$101,524 for non-Inuit employees, a wage gap of 27%. These figures show that jobs with the territorial government pay significantly better than the average, meaning that there are large potential gains for Inuit from increased employment in the public sector. This wage gap reflects, to a large extent, the fact that Inuit are more likely to be employed in lower-paying administrative or paraprofessional level positions in the government.

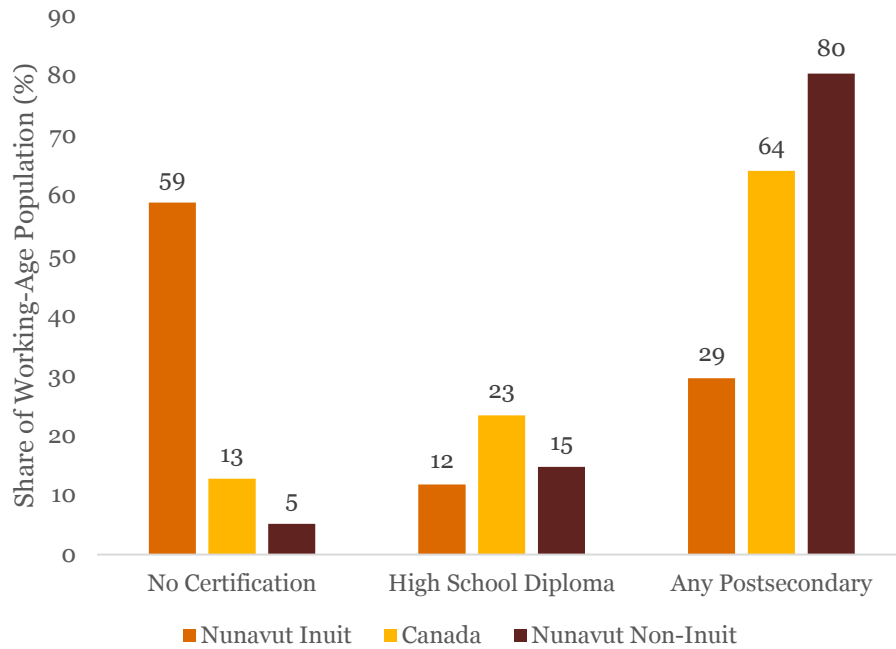
Education

Formal educational attainment remains a significant barrier to progress for Inuit in Nunavut. According to the 2011 NHS, 59% of adults aged 25-64 did not have a high school diploma. These figures have not changed significantly since the 2006 census, when 59% of Inuit adults did not have a high school diploma. This is significantly higher than the rate for Canadian adults (13%) and non-Inuit adults in Nunavut (5%). The majority of Inuit who finish high school go on to complete postsecondary complete a postsecondary credential (29%). However, only 3% of Inuit adults have a university degree.

¹³ National Household Survey 2011

As Figure 9 shows, educational attainment for the Canadian population as a whole and non-Inuit living in Nunavut is significantly higher than that of Inuit in Nunavut. As noted previously, the particularly high formal educational attainment of non-Inuit in Nunavut is explained by the fact that many non-Inuit go to Nunavut specifically to work in high-skills jobs.

Figure 9: Educational Attainment by Share of Working-Age (25-64) Population, 2011 ¹⁴



¹⁴ National Household Survey 2011

4. *Economic Impact Model*

As explained previously, our general approach for measuring the economic loss resulting from the failure to meet the requirements of Article 23 is based on comparing two projected scenarios for the territory of Nunavut. We refer to the first scenario as the “baseline,” which assumes that the current situation will continue into the future. The other scenario is referred to as the “alternative.” In this scenario, Article 23 has been achieved, and Inuit employment in the public sector is equal to its proportion in the population (the “representative level”). The alternative scenario represents a static counterfactual, and the model does not take into account transition dynamics to get from the baseline scenario to the alternative scenario. To estimate the baseline scenario, we assume that the trends from 2007-2016 will continue into 2023. Historical data were selected based on data availability. To estimate the parameters of the baseline and alternative scenarios, we make assumptions outlined below, combined with current data. It is important to note that limiting our projections to the years 2017 to 2023, does not suggest that economic losses will not continue after 2023, if the failure to meet Article 23 continues beyond that year. Rather, the decision to limit our projections to 2023 was done for simplicity and is in line with the timing of the next review of the ten-year planning cycle associated with the Nunavut Agreement. Furthermore, our costs estimation exclude any costs incurred prior to 2017.

It is important to note that:

- The economic costs presented in our report are part of a more comprehensive list.
- Our economic model for measuring the costs of not fulfilling Article 23 represents what we see as a reasonable scenario, but we note that fulfilling Article 23 is an obligation that the government has regardless of which path it takes to get there.

4.1. *Counterfactual Model Framework and Assumptions*

To assess the economic impact of not implementing Article 23, we constructed a labour market model with which we estimate the full costs of not having a representative Inuit labour force in the Nunavut Public Service (“NPS”) (includes the territorial and federal government branches based in Nunavut).

For the purposes of our labour market model, we define the representative level as:

$$\text{Representative Level in Year } X = \frac{\text{Nunavut Inuit Population in Year } X}{\text{Total Nunavut Population in Year } X}$$

According to the Nunavut Bureau of Statistics, in 2016, the total population in Nunavut was 37,082 and the Inuit population was 31,234.¹⁵ This means that the representative level target for the NPS, as stipulated by Article 23, was approximately 84.2%. For the projection years, 2017 to 2020, we assume that the representative level in each of those years is the average representative level in the years 2007 to 2016, which was 84.6%. For the purposes of our labour market model, we use this representative level as the target for how many Inuit would need to be employed by the NPS to fulfill Article 23 in each of the projection years.

In our labour model an Inuit person can have 1 of 3 possible employment statuses (note that the model does not include those who are out of the labour force):

- Employed in the Public Sector
- Employed in the Private Sector

¹⁵ Nunavut Bureau of Statistics, “Nunavut Population Estimates by Inuit and Non-Inuit, Region and Community.”

- Unemployed

The employed population is the sum of the people employed in the public and private sectors. To satisfy Article 23, our model of the counterfactual scenario is constructed to reflect a situation where the employed Inuit population in the NPS reaches the representative level. We categorize all public sector occupations into six levels in both the territorial and federal governments. The six levels of government, as categorized by the Government of Nunavut Public Service Annual Reports, are:

- Executive
- Senior Management
- Middle Management
- Professional
- Paraprofessional
- Administrative Support

It is important to note that Article 23 stipulates a representative level of Inuit employment in both the territorial and federal governments, as well as across each of the six job category levels. We were only able to gather detailed employment information for the territorial government and had to rely on high-level employment figures for the federal government. To estimate the breakdown of employment by job category at the federal level, we assumed that the existing breakdown by employment level within the territorial government (for which we had detailed information) was similar to the breakdown at the federal level. This estimation method is reflected in the equation below:

$$\begin{aligned} & \textit{Federal Government Executive Employment} \\ & = \textit{Federal Government Employment} \times \frac{\textit{Territorial Government Executive Employment}}{\textit{Territorial Government Employment}} \end{aligned}$$

To estimate Inuit-specific average salary data for the federal branch of government, we considered the salary gap between Inuit and non-Inuit employees at the territorial government level, such that the following equation expresses the average Inuit salary estimate at the federal government level:

$$\begin{aligned} & \textit{Average Inuit Federal Government Salary} \\ & = \textit{Average Federal Government Salary} \times \frac{\textit{Average Inuit Territorial Government Salary}}{\textit{Average Territorial Government Salary}} \end{aligned}$$

Using the Government of Nunavut's Public Service Annual Reports, we were able to identify at the territorial level, amongst other things, the number of available positions at each employment level (i.e. the sum of filled positions and vacant positions) and the number of Inuit employed at each level. From this information, we were able to determine the actual 2016 levels of Inuit representation in NPS employment and determine, based on our projections, the number of Inuit in each year that would have to be employed to reach the representative level.

Table 2: 2016 Employment Breakdown for Total NPS (Territorial and Federal), by Employment Level

Staff Level	Total Jobs (Filled + Vacant)	Filled Jobs	Jobs Filled by Inuit	Current Inuit Representation
Executive	42	39	13	33%
Senior Management	181	149	34	23%
Middle Management	505	384	120	31%
Professional	1,875	1,331	496	37%
Paraprofessional	1,101	774	411	53%
Administrative Support	1,442	1,049	802	76%
Total NPS	5,146	3,725	1,876	50%

Table 2 summarizes the 2016 employment breakdown for the entire NPS. Note that the Government of Nunavut calculates the share of Inuit employment as the jobs filled by Inuit as a percentage of total jobs filled. This does not take into account any job vacancies. For the purposes of our counterfactual model, we assume Article 23’s aim is to eliminate the barriers to entry that lead to jobs being left vacant. In this context, Inuit representation should consider jobs filled by Inuit as a percentage of total jobs. When we considered this way of measuring the representative level, we found that overall Inuit representation in the NPS falls from 50% to approximately 36%.¹⁶

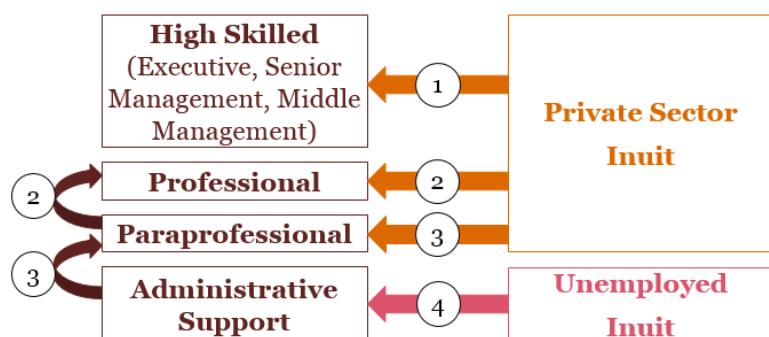
The labour market model that we designed to reach Inuit representative levels in each year from 2017 to 2020 works via the following steps:

1. **High Skilled Jobs:** The first step in the market mechanism was to reach representative levels in the Executive, Senior Management, and Middle Management levels (collectively referred to as “High Skilled Workers”). We assumed that these positions require high levels of training and were not able to be filled by any unemployed Inuit or Inuit employed in lower levels of the NPS. This meant that the entire gap of Inuit jobs to be filled had to be filled with Inuit from the private sector.
2. **Professional Jobs:** To reach the representative level among Professional Jobs, we assumed that Inuit from the Paraprofessional level could be promoted to fill these jobs. Once the promotions were exhausted, we assumed that the rest of the positions would be filled by qualified Inuit from the private sector.
3. **Paraprofessional Jobs:** Similar to the labour movement for the Professional job level, reaching the representative level for Paraprofessional jobs required promotions of Inuit from the Administrative Support level, as well as the hiring of Inuit from the private sector when the potential promotion pool was exhausted.
4. **Administrative Support Jobs:** Once steps 1 through 3 of the labour market model were completed, there were no Inuit left employed at the Administrative Support level, as they have all been promoted to the paraprofessional level. We assumed that unemployed Inuit would be able to fill these jobs after having benefited from pre-employment training provided for under Article 23. This was the one job level that did not require any hiring from the private sector.

¹⁶ 1,876/3,725 equals approximately 50% versus 1,876/5,146 which equals approximately 36%.

For a simple graphical illustration of the labour market mechanism, see Figure 10 below.

Figure 10: Labour Market Mechanism Chart



A key assumption of our model was that barriers for Inuit to moving into the NPS have been removed. The current low levels of Inuit representation and significant number of job vacancies at every level suggest that Inuit face employment barriers including not meeting the formal credential requirements of many jobs. However, provisions of Article 23 address the removal of some of these obstacles. As per Section 23.5.1 of the Article, the plan “will require special initiatives to provide some Inuit with skills to qualify for government employment.”¹⁷ We understand that the spirit of Article 23 also requires the government to ensure that Inuit have sufficient education to be able to reach the representative levels in the NPS, and that job postings reflect the value of knowledge of Inuit culture and language. Though this is not currently the case, we assumed in our counterfactual model that these provisions are met. These assumptions allow us to compare two distinct scenarios: the current labour situation and the counterfactual, where Article 23 is fully and successfully implemented.

In the case of promotions within the public sector, we assumed that the only difference in salaries observed between Inuit and non-Inuit employees were due to lower levels of Inuit representation in higher ranking positions. Therefore, for the purpose of our counterfactual model, we made the assumption that if an Inuit was promoted, their salary would increase from the Inuit average salary at their current level of government to the average salary for the level of government they are promoted to.

In order to properly estimate the counterfactual, we must also make assumptions about what happens to non-Inuit who are employed by the government in the baseline scenario but not in the alternative scenario. For simplicity, we assume that they would stay in Nunavut and move to private sector employment, earning the current average wage in the private sector. Under this scenario the Nunavut population figures stay at their projected levels. This outcome would require the creation of additional private sector jobs, which we assume is possible due to increased overall employment.

The other possible scenario is that instead of moving into the private sector, non-Inuit formerly employed by the public sector and their families would leave the territory. Under such a scenario, the population of Nunavut would decrease and the Inuit share of the population would increase. This situation would result in a lower number of private-sector positions and a higher representative share of Inuit public sector employees.

In reality, it is likely that some non-Inuit, along with their dependents, would leave Nunavut and some would stay. Analysing these scenarios (i.e. some or all non-Inuit leaving Nunavut) is beyond the scope of this report and in our view does not add significant insight into our analysis.

¹⁷ Section 23.5.1, Indian and Northern Affairs Canada 2010

It should also be noted that our model does not consider the possibility of Inuit moving from unemployment into private-sector jobs that were vacated by other Inuit who moved to the public sector. Considering this possibility would have increased the total economic costs to the Inuit in our projections.

4.2. Results

Based on the model and approach outlined in Section 4.1, we were able to estimate the number of Inuit that would be promoted, hired from the private sector, or hired directly from unemployment in the event that Article 23 was fulfilled. The figures shown in Table 3 depict the difference between the baseline scenario (i.e. the projected level of employment given current Inuit representation levels) and the alternative scenario (i.e. the estimated level of employment if Article 23 was fulfilled in each year). It is important to identify where Inuit would be working in both the baseline and alternative scenario in order to be able to compare the two results and measure the gains from fulfilling Article 23.

In total under the alternative scenario, over the course of the projection period (2017 to 2023), 5,406 Inuit would be promoted from within the NPS, 5,396 Inuit would be hired from the Nunavut private sector, and 5,303 Inuit would be hired directly from unemployment. This amounts to a total of 10,699 Inuit newly employed by the NPS from outside of the Territorial and Federal governments throughout the projection period.

Table 3: Total Number of Inuit Promoted, Hired from Private Sector, and Hired From Unemployment into the NPS, 2017-23

Year	Promoted	Hired from Private Sector	Hired from Unemployment	Newly Employed by NPS
2017	1,232	1,275	1,238	2,513
2018	1,250	1,294	1,257	2,551
2019	1,268	1,313	1,275	2,588
2020	1,287	1,332	1,294	2,626
2021	1,305	1,352	1,312	2,664
2022	1,324	1,370	1,331	2,701
2023	1,341	1,389	1,348	2,737
Total	9,007	9,326	9,055	18,381

Based on the Inuit employment figures discussed above, we were able to estimate the additional salaries to be gained by Inuit who would be promoted, hired from the private sector, or hired directly from unemployment in the event that Article 23 was fulfilled. Table 4 depicts the difference between the baseline scenario (i.e. the projected salaries given current Inuit representation levels) and the alternative scenario (i.e. the estimated salaries if Article 23 was fulfilled each year).

As a result of the differences in employment between the baseline and alternative scenarios, we estimate that over the projection period Inuit employees would receive salary/wage increases of \$108,875,444 by being promoted within the NPS, \$336,130,759 by being hired from the Nunavut private sector, and \$838,915,914 by being hired from unemployment.¹⁸ In total, the estimated cumulative difference to Inuit salaries between the baseline and alternative scenarios amounts to over \$1,283,922,116 over the years 2017 to 2023.

¹⁸ We assume that in the baseline scenario, unemployed people may receive Income Assistance and/or Employment Insurance. See sections 5.1 and 5.2 for our assumptions about these programs.

Table 4: Total Increase to Inuit Wages/Salaries as a Result of Fulfilling Article 23, 2017-23

Year	Promoted	Hired from Private Sector	Hired from Unemployment	Total
2017	\$13,568,107	\$43,416,838	\$103,589,524	\$160,574,469
2018	\$14,168,637	\$44,965,232	\$108,491,520	\$167,625,389
2019	\$14,821,352	\$46,325,149	\$113,831,702	\$174,978,204
2020	\$15,524,438	\$48,032,824	\$119,602,424	\$183,159,686
2021	\$16,219,720	\$49,583,452	\$125,304,596	\$191,107,768
2022	\$16,927,234	\$51,026,814	\$131,101,588	\$199,055,636
2023	\$17,645,955	\$52,780,449	\$136,994,559	\$207,420,963
Total	\$108,875,444	\$336,130,759	\$838,915,914	\$1,283,922,116

We note that in addition to increased wages/salaries, there will be an increase in associated employer benefits. Since we have no data on current benefits paid to Inuit coming for the above 3 pools, we are not able to quantify the increase in benefits.

5. Impacts on Government Revenue

5.1. Foregone Income Tax Revenue

Economic gains to the Inuit in terms of income will translate directly into higher income tax revenue for the governments of Nunavut and Canada. We calculated the income tax paid on the average salaries in our baseline and alternative scenarios, based on 2016 federal and territorial income tax rates. Using these numbers we found the increase in income tax contribution for each type of worker benefiting from Article 23 (promoted, hired from the private sector or hired from unemployment). We then multiplied these increases by the total number of each type of worker to get the aggregate increase in income tax revenue.

We note that 26% of government jobs are vacant in the baseline scenario (based on 2016 levels). Each job occupied by an Inuit in the alternative scenario that is vacant in the baseline represents creates net new income tax revenue to Nunavut and Canada.

Another source of net new tax revenue is those who are unemployed in the baseline and employed in the public sector in the alternative scenario. We assume that these individuals pay no income tax in the baseline.

As outlined in Section 3.3, we assume that non-Inuit working in the NPS under the baseline scenario would be employed in the Nunavut private sector in the alternative scenario. In the alternative scenario, these people earn the average private-sector salary and pay territorial and federal taxes. This represents a decrease in income tax revenue for each of these individuals compared to the baseline where they earn public-sector salaries.

Based on the above, we calculated that the total tax revenue increase in the years 2016 to 2023¹⁹ and summarized them in Table 5 below.

Table 5: Projected Increases in Tax Revenue, 2017-2023

Increase in Tax Revenue	Territorial Government	Federal Government
2017	\$3,791,203	\$13,402,945
2018	\$4,079,870	\$14,288,318
2019	\$4,413,664	\$15,305,941
2020	\$4,764,839	\$16,375,410
2021	\$5,119,157	\$17,464,789
2022	\$5,487,162	\$18,669,988
2023	\$5,848,193	\$19,857,117
Total	\$33,504,087	\$115,364,507

¹⁹ Tax is calculated on income estimates based on 2016 Federal and Nunavut rates.

5.2. Foregone Employment Insurance Payments

Our employment model includes people moving from unemployment into government employment, so fulfillment of Article 23 will reduce the number of people who receive Employment Insurance. Not all unemployed people are eligible for EI. To be eligible, an employee must have been employed in insurable employment and have worked a certain number of hours in the past year.²⁰ An employee must have lost their job through no fault of their own, be available for work, and be actively looking for work. These criteria exclude those who are unemployed on a long-term basis, or who participate in part-time or casual work. In Nunavut, on average 19% of unemployed people receive EI.²¹ This is low compared to the national average, suggesting that unemployed people in Nunavut have relatively lower labour force attachment than those elsewhere in Canada. The maximum number of weeks per year that an individual can receive EI depends on insurable hours and the regional unemployment rate.²² Given the 2016 unemployment rate in Nunavut of 14.6%²³, the minimum number of weeks of EI an eligible worker would receive is 28. Given the low labour market attachment of people unemployed in Nunavut, we assume that workers receive 28 weeks per year of EI. This can be considered a lower bound for EI savings.

Therefore, we calculate foregone EI payments in each year as:

$$\text{Foregone EI spending per year} = \text{unemployed people hired} \times \text{share of unemployed receiving EI} \times \text{avg weekly EI payment} \times \text{weeks of EI in one year}$$

These calculations assume that the percentage of unemployed receiving unemployment benefits among those moving from unemployment to work is identical to the share among the total population of unemployed in Nunavut, and that each worker takes the maximum number of weeks of EI available to them. The unemployment figures used for these calculations are for Nunavut as a whole, not only for Inuit, but as there are very few unemployed non-Inuit in Nunavut, the numbers are likely a good proxy. The chart below calculates the forgone EI spending by the government per year.

Table 6: Projected Savings from Foregone EI Payments, 2017-2023

Year	2017	2018	2019	2020	2021	2022	2023
Unemployed People Hired	1,238	1,257	1,275	1,294	1,312	1,331	1,348
Average Weekly Payment	\$475	\$487	\$500	\$513	\$527	\$540	\$554
Share of Unemployed Receiving EI	19%	19%	19%	19%	19%	19%	19%
Weeks of EI	28	28	28	28	28	28	28
Foregone EI Spending	\$3,114,423	\$3,243,468	\$3,377,080	\$3,515,703	\$3,658,934	\$3,806,572	\$3,958,513

²⁰ Government of Canada Justice Laws Website 2017

²¹ CANSIM Table 276-0018 Employment Insurance program (EI), regular income benefit characteristics by province, seasonally adjusted monthly (dollars unless otherwise noted) and CANSIM Table 282-0100 CANSIM Labour force survey estimates (LFS), by territories, sex and age group, 3-month moving average, seasonally adjusted and unadjusted.

²² Government of Canada 2016

²³ CANSIM Table 282-0123 Labour force survey estimates (LFS), by provinces, territories and economic regions. These figures are based on the assumption that an unemployed person would receive 28 weeks of EI for each year that they were in unemployment instead of employment. Employees must work a minimum of 420 hours or 10.5 40-hour weeks to be eligible for 28 weeks of EI.

These figures are based on our estimate of the number of people who would move from unemployment in the baseline scenario to employment in the alternative scenario, as well as the assumptions outlined above in the baseline scenario. In the alternative scenario where Article 23 is fulfilled, the government would pay over three million dollars per year less in EI benefits than in the baseline, and this represents a lower bound.²⁴

5.3. Income assistance

In our employment model, more Inuit are employed in the alternative scenario than in the baseline scenario due to some unemployed people entering the public service. Given that many unemployed people in Nunavut receive Income assistance (“IA”), also known as welfare, the government is likely to experience savings when these people become employed by the government.

The Nunavut Bureau of Statistics provides the following description of Income assistance: “[t]he Income Assistance Program is a program of last resort intended to help Nunavut families and individuals meet their basic needs when for various reasons, including disability, illness, low-income or periods of unemployment, when they are unable to provide for themselves.”²⁵ However, while it is described as a program of last resort, receiving IA is quite common in Nunavut. In 2013, 41% of people in Nunavut received income assistance, amounting to almost 38 million dollars in government spending.²⁶

It is important to keep in mind that people do not automatically become ineligible for IA when they become employed. Benefits are reduced at a rate of 15% of income past earnings of either \$200 or \$400 per month depending on disability and family structure.²⁷ Therefore, an unemployed person who begins working does not automatically lose their SA, rather their original entitlement is phased out gradually. The amount received while unemployed depends on earnings, family structure, and disability. People may also receive IA for part of the year and work for other parts of the year. This helps to explain why the average amount of IA spending per recipient was only \$2,603²⁸ in 2013 while maximum entitlement amounts ranged from \$6,003 to \$20,699.²⁹

²⁴ Workers with a higher number of insurable hours would receive more weeks of EI. For example, workers with 1,540 or more insurable hours in the past year would receive 45 weeks of EI. If all unemployed workers moving to employment were eligible for this level of EI, the government savings per year would be over five million dollars per year.

²⁵ Government of Nunavut Department of Family Services 2017

²⁶ Nunavut Bureau of Statistics, “Nunavut Social Assistance Recipients, 2005 to 2013.”

²⁷ Tweddle et al 2016

²⁸ Nunavut Bureau of Statistics, “Nunavut Social Assistance Recipients, 2005 to 2013” and Nunavut Bureau of Statistics “Nunavut Social Assistance Expenditures, 2004-2005 to 2013-2014.”

²⁹ Tweddle et al 2014

Table 7: Income Assistance Entitlements and Average Receipt, 2015

Family Structure	Single Employable Person	Single Parent with One Child	Couple with Two Children
Basic IA Entitlement by Family Structure, 2015³⁰	\$5,672	\$7,320	\$12,141
Share of Inuit with Above Family Structure, 2011³¹	26%	23%	50%
Average Unemployed Person Not on EI	\$9,321		
Average Unemployed Person on EI	\$7,743		

The basic income assistance entitlement takes into account the clawbacks due to National Child Benefits and Nunavut Child Benefits. Based on a weighted average of these numbers, the average unemployed person would receive \$9,320 per year in income assistance. However, if an unemployed person earned EI, their IA would be somewhat reduced.³² If a person is receiving EI, they may also work for part of the year. Income earned reduces the amount of IA received, so we assume for the purpose of our assessment that these people receive no IA. Since they would be likely to still receive some assistance, we can view this assumption as establishing a lower bound.

Table 8: Projected Government Savings on Income assistance Expenditure

Year	Unemployed People Hired	Total IA Savings
2017	1,238	\$9,347,329
2018	1,257	\$9,487,272
2019	1,275	\$9,627,089
2020	1,294	\$9,767,598
2021	1,312	\$9,907,226
2022	1,331	\$10,045,083
2023	1,348	\$10,180,602
Total	9,055	\$68,362,199

5.4. Housing Expenditures

Housing is known to be prohibitively expensive in Nunavut, and housing conditions are poor for many Inuit.³³ It is typical that government employees receive either staff housing or a housing allowance as part of their compensation.³⁴ According to a Government of Nunavut report, the total cost of staff housing for territorial government employees was \$4,151,000 in 2015/16. The government also subsidizes housing for 50% of the

³⁰ Tweddle et al 2016

³¹ These figures are based on the 2011 National Household Survey. Couples were measured as the sum of married couples and couples in common law relationships divided by two because only one partner would be eligible for SI. The average single parent has 1.8 children, so the entitlement for 1 child is a lower bound. The average couple has 2.1 children, so two children is a reasonable estimation.

³² Single employable people are entitled to a \$200 per month exemption and parents are entitled to a \$400 exemption. After this, benefits are clawed back at a rate of 15%.

³³ Battle and Torjman 2013

³⁴ Government of Nunavut 2016

Nunavut population and 95% of IA recipients, a benefit which is valued at approximately \$27,000 per year per person.³⁵

For the purposes of this report, we assume that all government employees live in staff housing, regardless of province or territory of origin.³⁶ The government will save money if Inuit who live in subsidized housing in the baseline scenario are able to move into staff housing when they get a government job in the alternative scenario. This is because the government no longer pays the housing subsidy, only the cost of the staff housing that they were already providing to a non-Inuit person in the baseline scenario. To estimate the value of housing expenditures saved by the government, we assume that government employees hired from the private sector have an 18% chance of receiving a housing subsidy in the baseline, and that government employees hired from unemployment have a 95% chance of receiving a housing subsidy in the baseline.³⁷

We note that subsidized housing currently provided by the government to non-public sector Inuit employees is of lower quality than the staff housing provided to government employees. As a result, moving Inuit into better housing creates additional benefits that were not quantified by us.

Finally, we assume that non-Inuit employees who formerly lived in staff housing will move into newly created private dwellings, having no effect on government costs.

Table 8 summarizes the amount of government spending on housing that is saved over the projection period in the alternative scenario compared to the baseline scenario.

Table 8: Total Government Housing Expenditure Savings, 2017-2023³⁸

Employee Type	New Inuit Jobs	% Receiving Housing Subsidy	Total Savings
Hired from Private Sector	9,326	18%	\$45,323,171
Hired from Unemployment	9,055	95%	\$232,256,315

³⁵ Battle and Torjman 2013

³⁶ Currently many Inuit employed in the NPS are not provided staff housing.

³⁷ These numbers are consistent with the fact that 50% of all Inuit receive subsidized housing.

³⁸ Note that this calculation assumes that 100% of unemployed Inuit are income assistance recipients, which we feel is reasonable.

6. Additional Benefits

The following section outlines additional economic benefits resulting from fulfilling Article 23 that we did not quantify as part of our assessment.

6.1. Lower Cost of Hiring Locally

When a non-Inuit person is hired to work for the government, significant costs are incurred that would not be paid otherwise. For example, the government covers the cost of relocation and for contracts over one year, the purchase of furniture.

According to the current Collective Bargaining Agreement for the Government of Nunavut, the employer will reimburse costs associated with relocation to Nunavut and costs to relocate from Nunavut on termination of employment. The costs eligible for reimbursement depend on where the employee resides in Nunavut, whether their dwelling is furnished or unfurnished and whether they have dependents. Costs to relocate to Nunavut are paid by the government employer, and costs to relocate away from Nunavut are partially reimbursed based on years of service. The eligible costs in Iqaluit, range from \$4,626 to \$10,284.³⁹

For illustration purposes, an employee in Iqaluit with dependents who had rented an unfurnished apartment and who had worked for the government for at least six years would be entitled to be reimbursed \$10,284 to relocate out of Nunavut. An employee in Cambridge Bay renting a furnished apartment who had no dependents and worked for the government for three years would be eligible for \$3,139 in moving expenses. If we assume that 100 non-Inuit are eligible to receive moving assistance in Iqaluit each year, half of which fall on the high end of the range and half on the low end, then the government would save \$745,500 annually⁴⁰ by hiring Inuit candidates and foregoing these relocation costs.

As illustrated above, government expenditure on relocation costs to and from Nunavut could amount to many thousands of dollars per non-Inuit employee. However, as outlined above the actual amount paid depends on many factors not observed by us, thus we were not able to quantify the exact amount.

6.2. Local Spending

As outlined above, fulfillment of Article 23 would represent significant gains in terms of income for Inuit. This increased income would likely lead to increased spending in the local economy, which would in turn lead to more job creation that would also benefit Inuit.

6.3. Improved Health Outcomes

Increased incomes and better housing for Inuit may also improve their health outcomes, given the well-established association between income and health. Socio-economic status has been shown to be connected to self-reported health, incidence of major health events, and life expectancy.⁴¹ This increase in income would represent significant benefits, given the relatively poor health outcomes described in Section 3.1. Additionally, greater Inuit representation in health care would enable increased delivery of health services in Inuktituk, which would make health care more accessible to Inuit.

³⁹ Table A-4, Government of Nunavut Ministry of Finance, 2014.

⁴⁰ $(50 \times \$4,626) + (50 \times \$10,284) = \$745,500$

⁴¹ James 2004

6.4. Higher Quality Education

Better Inuit representation among school teachers would support better education of the Inuktitut language and Inuit culture. It may also increase a sense of belonging among students and provide more positive role models, helping to boost graduation rates. These factors would provide tangible economic benefits as well as an increased sense of culture and belonging. Support for the Inuktitut language through education would have a number of other benefits to the Inuit.

6.5. Greater Participation in Traditional Activities

The 2001 Nunavut Household Survey showed that employed Inuit were more likely to participate in hunting, fishing, gathering, and harvesting than those unemployed or not in the labour force.⁴² It therefore appears that employment complements traditional activities rather than replacing them.

6.6. Improvement in Government Services Due to Hiring at Full Capacity

Currently the government has demand for employees that is not being met, with vacancy rates in the territorial government at 26% in 2016, and vacancy rates in the federal government at 21% in 2017. If Article 23 was fulfilled and governments were able to hire to capacity, the quality of public services would likely increase, benefitting all residents of Nunavut. Moreover, more services would be available in Inuktituk, which would make them more accessible, and therefore more effective.

6.7. Control over Policy Decisions

Greater Inuit participation in government would provide more control over decision-making, and more Inuit cultural understanding that could improve policy decisions. This factor could potentially have an incremental positive influence on all other benefits mentioned in this section.

⁴² Nunavummit Kiglisiniartiit (Nunavut Bureau of Statistics) 2001 Nunavut Household Survey.

7. Conclusion: The Cost of Not Implementing Article 23

This report has assessed some of the costs of not implementing Article 23 of the Nunavut Agreement. Compared to the baseline scenario, the alternative scenario where Article 23 is fulfilled provides benefits both to the Inuit living in Nunavut and to the territorial and federal governments. The following estimates represent benefits of the alternative scenario relative to the baseline scenario.

For the Inuit, fulfilment of Article 23 will mean that some government employees will be promoted. Some employees in the private sector will find better paying jobs in the government. Finally, some unemployed Inuit will benefit from internships and pre-employment training in order to find work with the government. All of these groups will see significant boosts to their incomes.

Thanks to these increases in incomes, the Nunavut and federal governments will receive higher revenues from income taxes. As unemployed people enter employment, spending on Employment Insurance and Income Assistance payments will decrease.

There are also many additional benefits that are not quantified in this report such as improved public services, increased Inuit influence in policymaking and improvements to Inuit health outcomes.

Table 9 shows the total costs to the Inuit and the governments from not fulfilling Article 23 in each year. We note that the large majority of the total cost is borne by Inuit rather than by governments. These projections are intended as illustrations of costs for these years. If Article 23 is not fulfilled by 2023, costs to the Inuit and the government will continue.

Table 9: Costs of not Fulfilling Article 23

Total Losses	Losses to Inuit	Losses to Governments
2017	\$160,574,469	\$67,610,013
2018	\$167,625,389	\$69,621,269
2019	\$174,978,204	\$71,813,833
2020	\$183,159,686	\$74,084,137
2021	\$191,107,768	\$76,377,639
2022	\$199,055,636	\$78,796,098
2023	\$207,420,963	\$81,181,982
Total	\$1,283,922,116	\$519,484,971

Appendix A: Scope of Review

To prepare this Assessment, we have reviewed and, where appropriate, relied upon various documents and sources of information.

By general classification, these sources include:

- Employment data published by the federal and territorial governments
- 2011 National Household Survey
- Nunavut Bureau of Statistics
- Statistics Canada Labour Force Survey
- Statistics Canada Canadian Community Health Survey
- Government publications on the regulations of various government programs
- Canada Revenue Agency

A list of sources and articles used for the purpose of this Assessment is available in Appendix B.

We note that PwC relied upon the completeness, accuracy, and fair presentation of all information, data, advice, opinions or representations obtained from various sources, which were not audited or otherwise verified by us.

Appendix B: References

- Battle, Ken and Sherri Torjman. "Poverty and Prosperity in Nunavut." *Caledon Institute of Social Policy* (2013).
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