

Employment in Nunavik

Profile and Trends

Sébastien Lévesque

Under the direction of Gérard Duhaime



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Executive summary

Using the Canadian census as our main source of data, this report analyzes the employment situation in Nunavik, describes the main trends in employment over the last 20 years, and explores the relationship between employment levels and various factors that may help to account for the differences observed among the different Aboriginal communities in Québec.

- Comparative analyses reveal significant differences between the province of Québec and Nunavik for certain indicators; in particular, unemployment is considerably higher in Nunavik than in the rest of Québec, while the rate of high school graduation is lower.
- A slightly higher proportion of women are employed in Nunavik compared to men; as well, fewer women are unemployed. Men are over-represented in jobs related to public administration, while women are more numerous in jobs related to health and education.
- The young, particularly those in the 15-24 and 25-34 age groups, are less well integrated in the labour market, with lower employment rates and higher unemployment rates.
- Significant contrasts persist between the Aboriginal and non-Aboriginal populations in Nunavik. Almost all non-Aboriginals are employed and most are highly educated.
- Employment and education levels tend to be higher in the communities in the Ungava region than in the Hudson region; and Kuujuaq is among the communities where the employment situation is most favourable. Communities with smaller labour pools are characterized by less diversified economic activity, with the workforce concentrated in areas related to public administration, health and education.
- Over the past two decades, progress has been achieved according to certain indicators, e.g. employment rates and full-time work have increased, whereas the proportion of the population without a diploma has declined. The

proportion of Aboriginals among all Nunavik workers has also increased in certain occupations and industries, particularly those related to health and education.

- Using the available data, we have analyzed the effect of various factors on the employment levels in Aboriginal communities in Nunavik and Quebec. Older populations as well as larger household sizes appear to be linked to lower employment rates in the Aboriginal communities. The proportion of people in a community with a post-secondary education, as well as the proportion of women, the proportion of non-Aboriginals and the proportion of workers using an Aboriginal language, all appear to be associated with higher levels of employment. The type of Aboriginal community also appears to be linked to the level of employment; on average, northern villages and Cree communities seem to have higher employment rates than reserves.

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1 Introduction

Federal and provincial government departments and statistical agencies periodically produce indicators designed to track employment trends on various geographic scales. However, while the Institut de la statistique du Québec regularly publishes employment statistics for all the administrative regions of Québec, for Nunavik – a region whose social and economic characteristics differ considerably from those of the administrative unit to which it belongs – the statistical coverage of employment is largely limited to data from the Canadian census. Studies have been conducted in the past to provide a more detailed statistical portrait of employment in Nunavik; the most recent was published in 2011^[1]. The present statistical analysis of employment in Nunavik was undertaken at the request of the Kativik Regional Government, using the data currently available in order to update our knowledge on the subject.

over the last two decades. Section 6 presents the results of a regression model designed to measure the relationships between employment levels and different variables observed in all the Aboriginal communities in Québec. Section 7 summarizes the principal findings of our analyses and provides some concluding remarks. The appendices contain the basic data used for the analyses presented in sections 3 and 4, the methodological details of the model presented in section 6, and a supplementary analysis that includes demographic projections for the population of Nunavik.

1.1 Objectives

This report aims to:

- Present an overall picture of employment in Nunavik using a comparative approach;
- Put into perspective the principal characteristics of the 14 northern villages within the region;
- Outline general employment trends in Nunavik over the last two decades;
- Explore the relationship between the level of employment and certain variables associated with it in order to identify the factors that may allow us to gain a better understanding of the differences and similarities in employment observed among Québec's various Aboriginal communities.

1.2 Organization of the report

The report is organized as follows: section 2 presents the main data sources and the principal approaches employed, along with their limitations. On the basis of the most recent data available, sections 3 and 4 analyze the employment situation in Nunavik and its 14 communities using a comparative approach. Section 5 outlines the main employment trends observed in Nunavik

2 Methodology

2.1 Data sources

The majority of the demographic and employment statistics presented in this study come from Canadian census data from 1996 to 2016. The statistics have been compiled from data available online, but also from the various personalized profiles produced for Nunivaat over the years.

High school graduation rates come from the reports published by the Quebec Ministry of Education and Higher Education entitled *Diplomation et qualification au secondaire*. Data from mining companies in Nunavik compiled by the Kativik Regional Government were also used in some analyses. All other sources are cited in the text.

2.2 A comparative approach

The analyses presented in this report attempt to highlight the specificities of workers and of employment in Nunavik. Where possible and relevant for the analyses, the indicators presented are broken down by gender and ethnicity. Inuit make up the majority of the population of Nunavik, but a non-Aboriginal minority also lives in the region. These two populations differ significantly, both in terms of their demographic and their socio-economic characteristics. To account for these differences, some indicators are broken down by identity, Aboriginal and non-Aboriginal.

For the purposes of this report, and in order to facilitate the comparability of data sources, the Aboriginal population is defined in accordance with Statistics Canada's concept of Aboriginal identity^[2]. Although this encompasses Aboriginal identities other than Inuit, in Nunavik, individuals who have declared an Aboriginal identity other than Inuit represent less than 2% of the Aboriginal population. In the interest of accuracy, the term "Aboriginal population" is therefore employed.

Lastly, in an effort to highlight the specificities of Nunavik, and more specifically the Inuit population living there, a number of indicators are compared with those indicators for the province of Quebec as a whole.

2.3 Exploratory modelling

The last analysis aims to explore the relationships between the level of employment in Nunavik and in Quebec's other Aboriginal communities and certain factors that may explain the observed differences in employment from one community to the next. To this end, a regression model was developed using census data from 1996 to 2016 for Quebec's Aboriginal communities.

Seeing that this data set was collected over several distinct periods for each of the communities, a mixed linear model was employed, since this method allows us to take into account the dependence of the observations and thereby obtain more precise results^[3]. This model is presented in more detail in Section 6.

2.4 Limitations

The census is the main source of data on employment for Nunavik. Although this is a rich data source, the census is only administered every five years, which means that the most recent data available at the time of writing this report date back to 2016, and the absence of data in the intercensal periods does not allow for a precise idea of the trends between these periods. Concepts or subgroups for which data are available (e.g. age groups) may sometimes vary from one census cycle to another, or vary according to geographic level.

In some cases, the data have been aggregated to allow for comparisons; in others, analyses had to be limited to the available data. Despite our efforts to compile as much data as possible on Quebec's Aboriginal communities, the available data limit the possibilities of regression analyses, both in terms of the available explanatory variables and the possibility of creating more precise models which would require a larger number of observations.

Statistics Canada's privacy policies may also reduce the accuracy of the data in some analyses where the number of observations is low, since the agency randomly rounds off observations to a multiple of 5 or 10^[4]. For example, estimates of the number of Aboriginal people in the smallest communities, as well as the number of employees in certain job categories or industries could be

biased by this practice.

The census data universe also has certain limitations when it comes to establishing the number workers in Nunavik. The census underestimates the number of workers in certain branches of economic activity in Nunavik, since respondents are surveyed at the address of their principal residence. For example, many workers from outside Nunavik are employed on short-to medium-term contracts or on an alternating work/extended leave basis (fly-in, fly-out) and they are not included in the data for the region. Although it is not possible to quantify this phenomenon from census data, many workers from outside Nunavik are not counted in these statistics, and this undercoverage is particularly pronounced in the primary and secondary sectors and in all branches of activity involving workers from outside Nunavik.

On the basis of data compiled by the Kativik Regional Government, analyses have been carried out in an effort to estimate more precisely the number of employees working in the region's mining companies. However, these data and those of the census cover different universes, and although corrections have been made to try to limit these biases^[5], the estimates we present may nevertheless overestimate or underestimate the number of mining sector workers. Analyses based on cross-referenced data are identified in the text.

3 A Profile of Employment in Nunavik in 2016

This section aims to provide a portrait of employment in Nunavik by presenting indicators related to its various facets, including employment and unemployment rates, as well as the distribution of workers among different occupational and industrial categories. But the section also addresses other dimensions associated with employment, such as demography and education. To better illustrate the specificity of Nunavik, these indicators are compared to the situation in the province as a whole, and the data are also broken down so as to present the main variations by gender and identity. The numbers on which the statistics given here are based can be found in the appendix.

3.1 Demographic Structure

Nunavik has a population of 13,115 inhabitants, including 11,985 persons whose identity is Aboriginal. Demographically, Nunavik is characterized by a very young population: the median age of the region's Aboriginal inhabitants is 21.6, compared to 41.7 for Quebec as a whole. When we look at the distribution of the population by age groups, we find that more than a third of Nunavik's Aboriginal population is under the age of 15, and that the working-age population, i.e. those aged 15-64, accounts for 60.6% of the inhabitants, a proportion that is 6 percentage points lower than that of Quebec as a whole (table 3.1). The demographic dependency ratio^[6] for the Aboriginal population of Nunavik is 65%, 15 percentage points higher than that of Quebec. This means that for every 100 people of working age among Nunavik's Aboriginal population, there are 65 people who qualify as "dependants", i.e. who are either not or no longer of working age.

In Nunavik, the majority of this dependent population is composed of children, whereas in Quebec, the dependent population is composed of an equal proportion of children and seniors. Nunavik's Aboriginal working-age population is also very young, with 59% of them under the age of 35, compared with 36.4% in Quebec. Nunavik's non-Aboriginal population totals 1,130 inhabitants, and its demographic profile differs markedly not only from the region's Aboriginal population, but also from the demographic structure of the

province as a whole: 85% of this population is of working age, and its dependency ratio is 17.6%.

3.2 Education

Formal education is an important factor that affects people's integration into the labour market. According to data from the last cohort monitored over a seven-year period, the high school graduation rate is 4.5 times lower in Nunavik than in Quebec as a whole. As in Quebec, the graduation rate is higher for females than for males (table 3.2). For both genders, the difference with the province is almost the same, i.e. about 63 percentage points.

The distribution of the population by level of education reveals that more than half of the 25-64 year-olds have no diploma, a proportion 4.4 times higher than in Quebec as a whole. The gap with the province is greatest for CEGEP and university graduates. As in Quebec, there are proportionally more women with a high school diploma as their highest diploma in Nunavik than men; and the same is true at the CEGEP and university levels (table 3.3). On the other hand, men are proportionally more likely to hold apprenticeship or trade school certificates as their highest diploma.

In terms of education, the profile of Nunavik's non-Aboriginal population is clearly different from both the rest of the population of Nunavik and from that of Quebec as a whole: three quarters of this population have a CEGEP diploma or higher, and only a minority have no diploma at all (table 3.4).

3.3 Participation rate, employment rate, unemployment rate and work schedule

Statistics Canada generally reports participation, employment and unemployment rates for the population aged 15 and over. However, the demographic structure of Nunavik differs substantially from that of Quebec: the young are proportionally more numerous, while the elderly constitute a smaller part of the population than in Quebec as a whole. In order to facilitate comparison of the rates of participation, employment and unemployment, the figures presented here are those for the population aged 25 to 64.

Table 3.1
Population distribution by age and identity, Nunavik and Quebec, 2016 (%)

Age	Nunavik			Quebec
	Total	Aboriginal	Non- Aboriginal	Total
	%			%
0-14	33.6	35.9	9.7	16.7
15-24	19.4	20.8	4.0	11.6
25-34	16.2	15.0	29.1	12.6
35-44	11.1	10.6	16.7	13.2
45-54	9.5	8.8	16.3	14.2
55-64	6.6	5.4	18.9	14.9
65+	3.6	3.5	5.3	16.8

Table 3.2
High school graduation rate, 2011 cohort
followed over seven years, 2017-2018, Nunavik
and Quebec (%)

Gender	Nunavik	Quebec
	%	
Total	18.1	81.8
Male	14.4	77.6
Female	21.9	86.1

Of the 4,770 Aboriginal persons in Nunavik aged 25 to 64, 3,050 are employed and 570 are unemployed. The participation rate^[7] for this group is slightly lower than for the same age group in the province as a whole. However, the gap is substantially larger for the employment rate^[8], with a difference of almost 12 percentage points (table 3.5). Similarly, Nunavummiut worked an average of 40 weeks in the year preceding the census, about 4.5 weeks less than the provincial average. Unlike the situation in the province as a whole, there is little difference in the participation rates of women and men, and women have a higher employment rate than men. The unemployment rate^[9] is 2.5 times higher among Nunavik's Aboriginal population than in Quebec as a whole. On the other hand, almost all of Nunavik's non-Aboriginal population is employed, and the unemployment rate among this population is almost three times lower than the provincial level (table 3.6).

In Nunavik, as in Quebec as a whole, younger

people are less likely to be employed and more likely to be unemployed. Although the levels of employment and unemployment are generally less favourable in Nunavik, it is among the 25–34 year-olds that the gap is the greatest: in Quebec, this age group is among the best integrated in the labour market, whereas the unemployment rate for the same group in Nunavik is three times higher than in the province as a whole (table 3.7). Conversely, the elderly are proportionally more likely to be employed in Nunavik than in Quebec.

Proportionally speaking, Aboriginal workers in Nunavik holding a full-time job^[10] are slightly fewer in number than workers in Quebec, seeing that men in Nunavik are more likely to be employed part-time than men in the province as a whole (table 3.8). There is no difference between women in Nunavik and women in Quebec as a whole in terms of work schedule. Among non-Aboriginal workers in Nunavik, on the other hand, part-time work is marginal: almost everyone in this workforce is employed full-time (table 3.9).

3.4 Industries

Table 3.10 presents the distribution of workers by gender in each branch of economic activity; for example, the percentage presented for women in public administration is calculated as the number of women in that branch over the total number of employed women. The distribution of Nunavik's workforce by industry differs considerably from that of Quebec. The proportion of employees in

Table 3.3

Highest diploma obtained by gender, Aboriginal population of Nunavik and total population of Quebec aged 25 to 64, 2016 (%)

Educational attainment	Nunavik			Quebec		
	Total	Female	Male	Total	Female	Male
	%			%		
Age, 15 and over						
No degree	65.4	65.1	65.4	19.9	19.2	20.7
High school	16.4	18.3	14.5	21.5	22.3	20.7
Apprenticeship or trades	12.6	8.4	16.9	16.9	13.0	20.9
College or university	5.5	8.2	3.1	41.7	45.5	37.7
Age, 25-64						
No degree	58.6	59.1	58.0	13.3	11.6	14.9
High school	16.2	18.0	14.7	18.5	18.7	18.3
Apprenticeship or trades	17.3	11.7	22.7	19.8	16.0	23.7
College or university	7.9	11.1	4.6	48.4	53.6	43.1

the primary sector, particularly in agriculture, forestry, fishing and mining, is slightly different from that in the province as a whole; but proportionally, the secondary sector employs considerably fewer people in Nunavik than it does in Quebec. However, the number of employees in these sectors in Nunavik may be underestimated owing to how the census operates (see section 2.4 and table 11).

In the tertiary sector, the most salient differences with Quebec are found in the proportion of employees in the health and social services sector, in public administration and, to a lesser extent, in education (table 3.10). These three branches of economic activity combined represent nearly two thirds of Nunavik's Aboriginal workforce, whereas they correspond to a little more than one third of the jobs held by Quebecers.

It is also in these three branches that gender differences are most pronounced in Nunavik. One third of Nunavik men are employed in public administration, which is twice as high as the proportion of women (table 3.10). On the other hand, nearly 40% of employed women work in health care, which is three times higher than the proportion of men. The proportion of women employed in education is also 2.5 times higher than that of men.

These variations by gender are also quite different from the situation in the province. In Quebec,

there is no gender difference in the number of employees in public administration. Although a larger proportion of the female workforce is employed in the areas of health and education in Quebec, the gender gap is far greater in Nunavik.

The estimates presented in Table 3.11 include secondary data in order to better account for the workforce on Nunavik mining sites (see section 2.4). By including the workers on Nunavik's mining sites, the relative proportion of employees in the region's mining sector increases from about 3% of the total workforce to 20%. In Nunavik, this branch of economic activity employs a much higher proportion of workers than it does in Quebec as a whole. By taking into account the workers on Nunavik's mining sites, we also observe a slight increase in the relative proportion of workers in the construction sector, and the proportion of workers in the health, public administration and education sectors is less different from the levels observed in Quebec.

Table 3.12 shows the composition by identity of each branch of economic activity; for example, the percentages given for public administration represent the proportion of Aboriginal and non-Aboriginal people in that branch of activity. While the Aboriginal population represent the majority of the resident population, it is not equally represented in all industries. As for the non-Aboriginal population, it is over-represented

Table 3.4

Highest diploma obtained by age and identity, population of Nunavik and Quebec, 2016 (%)

Educational attainment	Nunavik			Quebec
	Total	Aboriginal	Non- Aboriginal	Total
	%			%
Age, 15 and over				
No degree	58.2	65.4	4.4	19.9
High school	15.6	16.4	10.2	21.5
Apprenticeship or trades	12.5	12.6	10.7	16.9
College or university	13.7	5.5	74.6	41.7
Age, 25-64				
No degree	49.6	58.7	3.2	13.3
High school	15.1	16.3	9.7	18.5
Apprenticeship or trades	16.3	17.2	11.4	19.8
College or university	18.9	7.8	75.7	48.4

Table 3.5

Participation, employment and unemployment rates by gender, Aboriginal population of Nunavik and total population of Quebec aged 25 to 64, 2016 (%)

Indicators	Nunavik			Quebec		
	Total	Female	Male	Total	Female	Male
	%			%		
Participation	75.9	75.5	76.3	80.4	76.8	84.1
Employment	63.9	65.9	62.0	75.5	72.7	78.3
Unemployment	15.7	12.7	18.7	6.2	5.3	6.9

in finance and insurance, as well as in professional, scientific and technical services, although these branches only account for a small proportion of Nunavik's total employment. Similarly, non-Aboriginal workers account for a significant proportion of workers in education and, to a lesser extent, health care. Conversely, with the exception of construction, the Aboriginal population makes up the vast majority of workers in the primary and secondary sectors; although, as explained above (see section 2.4), the proportion of non-Aboriginal workers in the primary sector is underestimated.

The estimates presented in Table 3.13 include secondary data in order to better account for the workforce on Nunavik mining sites (see Section 2.4). In the mining sector, as well as in

the construction sector, the composition of these branches according to identity changes considerably when the labour force on the mining sites is included: non-Aboriginal workers then become the majority in these sectors. Furthermore, although non-Aboriginals represent less than a tenth of the residents of Nunavik, when we supplement the census data with the data from the Nunavik mining sites, it turns out that over 30% of the employees in Nunavik are non-Aboriginal.

3.5 Occupations

Table 3.14 presents the distribution of workers by gender in each occupational category; for example, the percentage presented for women in sales and services is calculated as the number of women in that category over the total number

Table 3.6

Participation, employment and unemployment rates by age and identity, population of Nunavik and Quebec aged 25 to 64, 2016 (%)

Indicators	Nunavik			Quebec
	Total	Aboriginal	Non-Aboriginal	Total
	%			%
Participation	79.3	75.9	96.7	80.4
Employment	68.9	63.9	94.6	75.5
Unemployment	13.1	15.7	2.2	6.2

Table 3.7

Participation, employment and unemployment rates by age, Aboriginal population of Nunavik and total population of Quebec aged 15 and over, 2016 (%)

Age	Nunavik			Quebec		
	Participa- tion	Employ- ment	Unemploy- ment	Participa- tion	Employ- ment	Unemploy- ment
	%			%		
Total	67.7	55.7	17.8	64.1	59.5	7.2
15-24	59.3	45.3	23.6	62.6	54.8	12.5
25-34	74.1	59.1	20.3	86.9	81.0	6.8
35-44	79.1	66.8	15.5	88.7	83.8	5.6
45-54	78.4	68.5	12.6	86.8	82.0	5.5
55-64	69.2	63.1	10.0	61.5	57.2	7.1
65+	24.1	24.1	10.0	12.0	10.7	10.9

of employed women. Compared to Quebec, occupations related to education and government services account for a greater proportion of Aboriginal workers in Nunavik, with a difference of 7 percentage points; and as in Quebec, these occupational categories include a significantly greater proportion of women than men. Similarly, sales and services account for a larger proportion of employees in Nunavik, but unlike Quebec, these occupations employ almost as many men as women.

Several occupational categories have proportionally fewer Aboriginal employees in Nunavik. In certain occupational categories, Aboriginal workers in Nunavik are proportionally less numerous than workers in Quebec as a whole, particularly in business, finance and administration, but also in manufacturing, science and health care.

Table 3.15 shows the composition by identity

of each occupational category; for example, the percentages given for sales and service represent the proportion of Aboriginal and non-Aboriginal persons in that occupational category. Non-Aboriginal workers are over-represented in several occupations: while they represent only 13.6% of Nunavik workers, they account for almost half of science workers and 40% of health workers. They are also twice as numerous as their proportion in Nunavik's labour force in the areas of management, financial affairs, education and government services. Aboriginal workers are over-represented in a number of occupations, including the arts, transport and trades, as well as in retail sales and service. No non-Aboriginal workers were identified in occupations related to the exploitation of natural resources and manufacturing, underestimation due to the way the census operates (see section 2.4).

Table 3.8

Workers by work schedule and gender, Aboriginal population of Nunavik and total population of Quebec aged 15 and over, 2016 (%)

Work schedule	Nunavik			Quebec		
	Total	Female	Male	Total	Female	Male
	%			%		
Full-time	73.0	71.4	74.7	77.3	71.4	82.8
Part-time	27.0	28.6	25.3	22.7	28.6	17.2

Table 3.9

Workers by work schedule and identity, population of Nunavik and Quebec aged 15 and over, 2016 (%)

Work schedule	Nunavik			Quebec
	Total	Aboriginal	Non-Aboriginal	Total
	%			%
Full-time	76.4	73.0	95.9	77.3
Part-time	23.6	27.0	4.1	22.7

3.6 Synthesis

This section's comparative profile has highlighted several contrasts between Nunavik and Quebec as whole. Demographically, the proportion of young people in Nunavik is much higher than in the overall population of Quebec, which means that there is a larger dependent population in Nunavik and a larger number of workers who are on average younger in age. In terms of education, the differences between Quebec and Nunavik are stark: the rate of high school graduation in Nunavik is significantly lower than the provincial level, and more than one person in two has no diploma at all. Nevertheless, the participation rate is comparable to that of the province, although other employment indicators indicate a more precarious integration into the labour force of some Nunavik workers; in particular, the unemployment rates are higher than in Quebec. The distribution of Nunavik workers among the different branches of economic activity also displays characteristics that distinguish it from that of Quebec; most notably, a greater proportion of people work in the areas of public administration, health and education.

In terms of gender, women in Nunavik seem to

be better integrated into the labour market than men; among other things, women have slightly higher employment rates and lower unemployment rates. Contrary to the provincial picture of parity in public administration, women in Nunavik are less likely than men to be employed in this area. As in Quebec, however, Nunavik women are more numerous than men in jobs related to health and education.

This comparative profile also highlights the presence in Nunavik of a non-Aboriginal population whose profile differs significantly from that of the Aboriginal population; in particular, their education and employment rates are higher than in the province generally. This non-Aboriginal population is also over-represented in certain occupations and economic activities. While the size of the population from outside Nunavik is difficult to pin down from census data alone (see section 2.4), it nonetheless represents the majority of the workforce employed on mining sites in the region.

Table 3.10

Workers by branch of economic activity and gender, Aboriginal population of Nunavik and total population of Quebec aged 15 and over, 2016 (%)

Branch	Nunavik			Quebec		
	Total	Female	Male	Total	Female	Male
	%			%		
Agriculture, forestry, fishing, hunting	1.0	0.0	1.9	3.2	1.4	4.9
Mining, quarrying, oil, gas extraction	2.9	1.8	4.1	1.5	0.5	2.4
Utilities	1.6	0.0	3.1	1.1	0.4	1.7
Construction	1.5	0.6	2.5	8.1	1.5	14.2
Manufacturing	0.3	0.4	0.6	7.5	3.8	10.9
Wholesale trade	0.7	0.4	1.0	2.2	1.5	2.9
Retail trade	9.8	9.6	10.1	10.8	12.1	9.6
Transportation, warehousing	5.0	3.0	7.0	4.6	2.3	6.8
Information, cultural industries	1.0	1.0	0.8	1.6	1.5	1.8
Finance, insurance	0.2	0.4	0.4	1.8	2.5	1.3
Real estate, rental, leasing	3.2	2.2	3.9	1.3	1.0	1.6
Professional, scientific, technical services	0.6	0.4	1.0	3.5	3.6	3.3
Management of companies, enterprises	0.2	0.0	0.4	0.1	0.1	0.0
Administrative, support, waste mgmt	1.1	0.8	1.4	4.3	3.4	5.2
Educational services	12.7	18.0	7.2	7.1	10.7	3.9
Health care, social assistance	26.5	39.8	12.8	15.0	25.3	5.5
Arts, entertainment, recreation	1.9	1.4	2.5	2.3	2.3	2.3
Accommodation, food services	2.6	3.8	1.4	6.8	9.1	4.7
Other services	3.2	2.2	4.1	4.6	5.0	4.3
Public administration	23.9	14.2	33.6	12.5	12.2	12.7

Table 3.11

Workers by branch of economic activity, total population of Nunavik, including non-resident mining workers, and total population of Quebec aged 15 and over, 2016 (%)

Branch	Nunavik	Quebec
	%	
Agriculture, forestry, fishing, hunting	0.7	3.2
Mining, quarrying, oil, gas extraction	20.1	1.5
Utilities	1.1	1.1
Construction	2.8	8.1
Manufacturing	0.2	7.5
Wholesale trade	0.5	2.2
Retail trade	7.3	10.8
Transportation, warehousing	3.7	4.6
Information, cultural industries	0.8	1.6
Finance, insurance	0.3	1.8
Real estate, rental, leasing	2.5	1.3
Professional, scientific, technical services	0.6	3.5
Management of companies, enterprises	0.1	0.1
Administrative, support, waste mgmt	0.9	4.3
Educational services	11.7	7.1
Health care, social assistance	22.3	15.0
Arts, entertainment, recreation	1.4	2.3
Accommodation, food services	2.1	6.8
Other services	2.5	4.6
Public administration	18.4	12.5

Table 3.12

Composition of branch of economic activity by identity, population of Nunavik aged 15 and over, 2016 (%)

Branch	Nunavik	
	Aboriginal	Non- Aboriginal
	%	
Agriculture, forestry, fishing, hunting	100.0	0.0
Mining, quarrying, oil, gas extraction	93.5	6.5
Utilities	100.0	0.0
Construction	83.3	16.7
Manufacturing	100.0	0.0
Wholesale trade	100.0	0.0
Retail trade	89.7	10.3
Transportation, warehousing	90.7	9.3
Information, cultural industries	83.3	16.7
Finance, insurance	50.0	50.0
Real estate, rental, leasing	86.1	13.9
Professional, scientific, technical services	66.7	33.3
Management of companies, enterprises	100.0	0.0
Administrative, support, waste mgmt	84.6	15.4
Educational services	72.7	27.3
Health care, social assistance	80.1	19.9
Arts, entertainment, recreation	90.5	9.5
Accommodation, food services	83.9	16.1
Other services	86.1	13.9
Public administration	87.0	13.0

Table 3.13

Composition of branch of economic activity by identity, population of Nunavik aged 15 and over, including non-resident mining sector workers 2016 (%)

Branch	Nunavik	
	Aboriginal	Non-Aboriginal
	%	
Agriculture, forestry, fishing, hunting	100.0	0.0
Mining, quarrying, oil, gas extraction	15.9	84.1
Utilities	100.0	0.0
Construction	37.1	62.9
Manufacturing	100.0	0.0
Wholesale trade	100.0	0.0
Retail trade	89.7	10.3
Transportation, warehousing	90.7	9.3
Information, cultural industries	83.3	16.7
Finance, insurance	50.0	50.0
Real estate, rental, leasing	86.1	13.9
Professional, scientific, technical services	66.7	33.3
Management of companies, enterprises	100.0	0.0
Administrative, support, waste mgmt	84.6	15.4
Educational services	72.7	27.3
Health care, social assistance	80.1	19.9
Arts, entertainment, recreation	90.5	9.5
Accommodation, food services	83.9	16.1
Other services	86.1	13.9
Public administration	87.0	13.0

Table 3.14

Workers by occupation and gender, Aboriginal population of Nunavik and total population of Quebec aged 15 and over, 2016 (%)

Occupations	Nunavik			Quebec		
	Total	Female	Male	Total	Female	Male
	%			%		
Management	6.6	6.0	7.2	8.2	7.1	9.3
Business, finance, administration	10.9	17.1	4.6	14.5	22.1	7.5
Natural, applied sciences	1.0	0.4	1.7	3.9	1.9	5.6
Health	3.3	5.2	1.4	5.9	10.2	1.9
Education, law, social, gov.	20.7	32.3	8.9	13.5	20.3	7.2
Art, culture, recreation, sport	6.0	6.2	5.6	3.1	3.7	2.5
Sales, service	29.0	30.3	27.5	25.0	29.2	21.1
Trades, transport, eqpt operators	19.3	1.6	37.3	18.2	2.3	33.0
Natural resources, agriculture	1.8	0.4	3.5	3.3	1.0	5.4
Manufacturing, utilities	1.4	0.4	2.3	4.3	2.1	6.4

Table 3.15

Composition of occupational categories by identity, population of Nunavik aged 15 and over, 2016
(%)

Occupations	Nunavik	
	Aboriginal	Non- Aboriginal
	%	
Management	72.2	27.8
Business, finance, administration	78.1	21.9
Natural, applied sciences	52.6	47.4
Health	59.3	40.7
Education, law, social, gov.	74.6	25.4
Art, culture, recreation, sport	96.7	3.3
Sales, service	92.5	7.5
Trades, transport, equipment operators	93.6	6.4
Natural resources, agriculture	100.0	0.0
Manufacturing, utilities	100.0	0.0

4 A Profile of Employment by Community

The aim of this section is to present the main differences and similarities among the 14 communities in Nunavik in terms of employment, demography and education. When patterns emerge from the analysis, we will highlight sets that allow the communities to be grouped together according to common characteristics, such as geographical location or the size of their labour pool. Our analysis pays particular attention to the divisions between the Aboriginal and non-Aboriginal populations.

4.1 Demographic profile

As table 4.1 shows, there are certain demographic variations that exist among the 14 communities in Nunavik. The range in the number of inhabitants per village (regardless of identity) is significant, with 205 inhabitants for Aupaluk and 2,720 inhabitants for Kuujjuaq. The demographic structure of Kuujjuaq displays characteristics that strongly distinguish it from other communities. In addition to being the most populous community, more than 70% of its population is of working age, and more than 60% of Nunavik's non-Aboriginal population resides there. Indeed, more than a quarter of Kuujjuaq's population is non-Aboriginal, while the proportion of non-Aboriginals in other communities ranges from about 3 to 8 %^[11].

As illustrated in section 3.1 on the demographics of Nunavik, Aboriginal and non-Aboriginal populations differ significantly in many respects. Although this is not the only factor involved, the ethnic composition of a village may affect its demographic structure. In particular, the proportion of the working-age population tends to be higher in communities where a higher percentage of the population is non-Aboriginal. In addition to Kuujjuaq, this is the case for Kuujjuarapik, Kangirsuk and Kangiqsujaq, where the proportion of non-Aboriginal inhabitants ranges from 6 to 8%, and where the proportion of the working-age population varies from 63 to 65%, which is higher than the Nunavik average.

Notwithstanding their specific demographic characteristics, each community has a population that is considerably younger than the provincial average. In Kuujjuaq, the community with the

highest average age, those under fifteen are nevertheless twice as numerous as in Quebec as a whole; in Akulivik and Puvirnituq, the proportion of this age group is almost 40%. Hence, with the exception of Kuujjuaq, the ratio between the dependent population and the working-age population in all other communities is higher than that of Quebec.

Although this statistic should be interpreted with caution for villages with a smaller population, the proportion of women in a majority of communities is below 50%, with the exception of a few communities, notably Kuujjuaq and Puvirnituq (table 4.2). While the average number of persons per household in Kuujjuaq is close to the provincial average of 2.4, there are some communities, such as Kangiqsualujjuaq and Ivujivik, which have considerably larger households.

4.2 Education

The population distribution according to the highest level of education attained varies greatly from one community to the next, and the differences observed between the communities do not display a very clear geographical pattern. For the population aged 25 to 54, the communities of the Ungava region tend to have the lowest proportion of people without a diploma and the highest proportion of people with a post-secondary education (table 4.3). Conversely, the communities that are furthest north in the Hudson Bay region have the lowest levels of education; Kangiqsualujjuaq, in particular, has a much lower level of education than other communities in the Ungava region. Communities with the highest average household size also tend to have a higher proportion of inhabitants without a degree, although the reason for this association is not obvious.

4.3 Participation rate, employment rate, unemployment rate and work schedule

There are significant variations between communities in terms of the levels of employment and unemployment. The community of Kuujjuaq has the highest employment rate in Nunavik; and with the exception of Kangiqsualujjuaq, communities in the Ungava region tend to have higher

Table 4.1

Population distribution by age group by community, total population of Nunavik, 2016 (N, %)

Community	Total	Population by age group						
		0-14	15-24	25-34	35-44	45-54	55-64	65+
	<i>N</i>	<i>%</i>						
Akulivik	630	39.1	20.3	11.7	10.9	7.0	7.8	3.1
Aupaluk	205	33.3	19.0	19.0	9.5	9.5	4.8	4.8
Inukjuak	1,755	37.0	17.1	16.2	11.4	9.4	5.1	3.7
Ivujivik	415	33.7	22.9	14.5	9.6	10.8	6.0	2.4
Kangiqsualujjuaq	945	33.9	20.1	15.9	10.1	11.1	5.3	3.7
Kangiqsujaq	745	32.2	20.8	16.1	13.4	8.7	6.0	2.7
Kangirsuk	570	30.7	22.8	14.0	12.3	8.8	5.3	6.1
Kuujjuaq	2,720	27.0	16.9	19.3	12.5	11.4	9.0	4.0
Kuujjuarapik	685	31.2	17.4	18.8	10.9	10.9	7.2	3.6
Puvirnituaq	1,750	38.2	19.1	14.0	10.0	8.8	6.6	3.4
Quaqtaq	405	33.8	20.0	20.0	8.8	7.5	7.5	2.5
Salluit	1,475	35.6	20.3	15.6	10.8	8.1	5.8	3.7
Tasiujaq	365	31.9	26.4	16.7	9.7	8.3	4.2	2.8
Umiujaq	445	37.9	23.0	12.6	10.3	10.3	3.4	2.3

employment rates than those in the Hudson region (table 4.4). Furthermore, unemployment is much lower in Kuujjuaq, and the neighbouring communities also have levels of unemployment that are among the lowest in Nunavik. Among the communities in the Hudson region, Puvirnituaq stands out in having a level of unemployment comparable to Kuujjuaq. It should also be noted that these are two communities where the proportion of women is higher. There is, however, a notable rift in terms of the participation rate: communities in the Ungava region tend to have a higher participation rate than those in the Hudson region. Although we cannot postulate a clear linear relationship, communities with higher participation rates are often those with a smaller number of persons per household.

In almost all villages where non-Aboriginal residents have been identified, nearly all of this population is actively employed, although distortions may have been introduced by random rounding in communities with few such residents^[12].

Umiujaq, Kuujjuaq and Ivujivik stand out in terms of work schedule, as proportionally more Aboriginal workers in these communities are employed full-time than in Nunavik as a whole, and these proportions are comparable to, or even

higher than, those observed in the province generally (table 4.5). For the other communities, the variations are rather small, with the exception of Kangiqsualujjuaq where the proportion of part-time workers is more than 30%. Almost all non-Aboriginal employees in Nunavik's communities work full-time.

4.4 Industries

Tables 4.6 to 4.10 present the distribution of Nunavik's Aboriginal and non-Aboriginal workers by branch of economic activity; the communities are presented in ascending order of the size of their employed population. The distribution of workers by branch of economic activity tends to be more diversified in communities with a larger labour pool than in those with a smaller labour pool. In particular, in communities with fewer workers, there are no Aboriginal employees in certain industries; this is the case in several communities for construction, wholesale trade, rental and real estate. Public administration tends to employ a slightly higher proportion of Aboriginal workers in these communities. In communities with more workers, a greater proportion of Aboriginal workers are employed in health care. In all villages, the great majority of Aboriginal workers

Table 4.2

Distribution by identity, gender and household size by community, total population of Nunavik, 2016 (% , n)

Community	Non- Aboriginal	Female	Average household size
	%	%	<i>n</i>
Akulivik	0.0	46.8	4.1
Aupaluk	0.0	45.2	3.4
Inukjuak	2.6	49.0	4.0
Ivujivik	3.6	49.4	4.4
Kangiqsualujuaq	4.8	47.1	4.7
Kangiqsujuaq	6.0	49.3	3.5
Kangirsuk	6.1	46.5	3.5
Kuujjuaq	25.6	51.0	2.8
Kuujjuarapik	8.0	46.7	3.0
Puvirnituk	5.7	51.4	3.9
Quaqtaq	4.9	50.0	3.1
Salluit	2.7	48.6	4.5
Tasiujaq	4.1	49.3	4.1
Umiujaq	3.4	51.1	4.2

are employed in retail trade, education, health and public administration.

There is also a relationship between the distribution of non-Aboriginal workers by industry and the size of the employed population within communities. In communities with fewer workers, non-Aboriginal workers are concentrated in jobs related to education and health. In communities with a larger labour pool, these branches also employ a significant proportion of non-Aboriginal people; however, the distribution of these workers in other branches is somewhat more diverse, including a non-negligible proportion of non-Aboriginals in areas related to public administration. With the exception of Kuujjuaq, however, non-Aboriginal workers are usually highly concentrated in a few branches of economic activity.

4.5 Occupations

Tables 4.11 to 4.15 present the distribution of Nunavik's Aboriginal and non-Aboriginal workers by occupations; the communities are presented in ascending order of the size of their employed population. Among the employed Aboriginal population, the distribution of workers by job category does not vary significantly from one community to

another. Generally speaking, in communities with a smaller employed population, Aboriginal workers are proportionally more numerous in trades and transport, as well as in management. In communities with a larger employed population, there are more employees in occupations related to health, as well as occupations related to education and government services.

Among the employed non-Aboriginal population, the relationship between the number of workers in a community and the proportion of employees in the different occupational categories is more pronounced. In communities with a smaller labour pool, non-Aboriginal workers are highly concentrated in jobs related to education and government services, while in communities with a larger pool, there are proportionately more non-Aboriginal employees in business and administration, management, and sales and services.

4.6 Synthesis

The profile of the communities presented in this section reveals considerable contrasts among the 14 northern villages of Nunavik in terms of their demographic structure as well as in terms of the main employment indicators. While it is

Table 4.3

Highest diploma obtained by community, Aboriginal population of Nunavik aged 25 to 54, 2016 (%)

Community	No degree	High school	Trades	College or university
	%			
Akulivik	77.5	12.5	5.0	5.0
Aupaluk	50.0	11.1	16.7	22.2
Inukjuak	50.0	19.8	23.0	7.1
Ivujivik	65.5	13.8	13.8	6.9
Kangiqsualujuaq	72.6	14.5	9.7	3.2
Kangiqsujaq	58.0	8.0	26.0	8.0
Kangirsuk	44.4	13.9	30.6	11.1
Kuujuaq	46.6	24.0	16.4	13.0
Kuujuarapik	48.0	24.0	20.0	8.0
Puvirnituq	71.2	19.2	6.7	2.9
Quaqtaq	46.2	11.5	42.3	0.0
Salluit	72.6	14.7	9.5	3.2
Tasiujaq	52.2	8.7	21.7	17.4
Umiujaq	48.1	18.5	25.9	7.4

not possible to identify clear patterns that would allow us to establish different groupings of the communities, some general observations can be pointed out on the basis of the employment indicators that we have analyzed. According to the indicators, certain divergences exist between the Ungava region and the Hudson region that are more or less pronounced. In particular, employment and education levels tend to be higher in the communities in the Ungava region than in the Hudson region. According to all the indicators, Kuujuaq is consistently among the communities where the situation is most favourable.

Other contrasts between communities can be observed between communities that depend on the size of their labour pool. Economic activity tends to be less diversified in smaller communities than in larger ones, with workers more concentrated in activities related to public sector services, such as public administration, health and education.

Despite the fact that certain communities tend to combine multiple disadvantages – such as lower levels of education and employment, or larger household size – while others exhibit generally more favourable conditions, it is difficult to reduce the employment situation in each community to

general rules based on a few indicators. For example, while Puvirnituq has one of the lowest levels of education in Nunavik, it nonetheless has one of the highest levels of employment and unemployment. For this reason, other factors need to be considered if we are to obtain a better understanding of the employment differences observed among Nunavik's communities.

Table 4.4

Participation, employment and unemployment rates by identity and community, population of Nunavik aged 25 to 54, 2016 (%)

Community	Aboriginal			Non-Aboriginal		
	Part.	Empl.	Unempl.	Part.	Empl.	Unempl.
	%			%		
Akulivik	68.4	57.9	11.5	0.0	0.0	0.0
Aupaluk	86.7	66.7	15.4	0.0	0.0	0.0
Inukjuak	68.0	53.6	21.2	66.7	83.3	0.0
Ivujivik	77.8	59.3	23.8	100.0	100.0	0.0
Kangiqsualujjuaq	76.2	60.3	20.8	100.0	100.0	0.0
Kangiqsujaq	86.3	64.7	25.0	100.0	100.0	0.0
Kangirsuk	80.0	62.9	17.9	100.0	80.0	40.0
Kuujujaq	86.9	77.9	10.3	97.8	95.5	2.3
Kuujuarapik	68.0	54.0	20.6	100.0	100.0	33.3
Puvirnituq	75.0	67.3	10.3	100.0	90.9	0.0
Quaqtaq	85.2	66.7	26.1	100.0	100.0	0.0
Salluit	71.9	60.4	15.9	83.3	83.3	0.0
Tasiujaq	81.8	72.7	16.7	100.0	100.0	100.0
Umiujaq	74.1	59.3	15.0	100.0	100.0	0.0

Table 4.5

Workers by work schedule by identity and community, population of Nunavik aged 15 and over, 2016 (%)

Community	Aboriginal		Non-Aboriginal	
	Full-time	Part-time	Full-time	Part-time
	%		%	
Akulivik	72.7	27.3	0.0	0.0
Aupaluk	73.7	26.3	0.0	0.0
Inukjuak	70.2	29.8	100.0	0.0
Ivujivik	77.1	22.9	100.0	0.0
Kangiqsualujjuaq	69.4	30.6	100.0	0.0
Kangiqsujaq	73.0	27.0	77.8	22.2
Kangirsuk	67.3	32.7	100.0	0.0
Kuujujaq	79.0	21.0	96.8	3.2
Kuujuarapik	73.2	26.8	100.0	0.0
Puvirnituq	70.4	29.6	100.0	0.0
Quaqtaq	70.0	30.0	100.0	0.0
Salluit	71.2	28.8	100.0	0.0
Tasiujaq	71.4	28.6	100.0	0.0
Umiujaq	79.4	20.6	100.0	0.0

Table 4.6

Workers by branch of economic activity, identity and community, population aged 15 and over,
Aupaluk, Umiujaq and Ivujivik, 2016 (%)

Industries	Aupaluk		Umiujaq		Ivujivik	
	A.	N.	A.	N.	A.	N.
	%		%		%	
Agriculture, forest. fish. hunt.	0.0	0.0	0.0	0.0	6.1	0.0
Mining, quarrying, oil, gas	0.0	0.0	5.7	0.0	0.0	0.0
Utilities	0.0	0.0	5.7	0.0	0.0	0.0
Construction	0.0	0.0	0.0	0.0	0.0	0.0
Manufacturing	0.0	0.0	0.0	0.0	0.0	0.0
Wholesale trade	0.0	0.0	0.0	0.0	0.0	0.0
Retail trade	11.8	0.0	8.6	0.0	12.1	0.0
Transportation, warehousing	11.8	0.0	5.7	0.0	6.1	0.0
Information, cultural industries	0.0	0.0	5.7	0.0	0.0	0.0
Finance, insurance	0.0	0.0	0.0	0.0	0.0	0.0
Real estate, rental, leasing	0.0	0.0	0.0	0.0	0.0	0.0
Professional, sci., tech. services	0.0	0.0	0.0	0.0	0.0	0.0
Management of companies	0.0	0.0	0.0	0.0	0.0	0.0
Administrative, waste mgmt	0.0	0.0	0.0	0.0	0.0	0.0
Educational services	17.6	0.0	17.1	100.0	15.2	100.0
Health care, social assistance	17.6	0.0	14.3	0.0	21.2	0.0
Arts, entertainment, recreation	0.0	0.0	5.7	0.0	0.0	0.0
Accommodation, food services	0.0	0.0	0.0	0.0	6.1	0.0
Other services	0.0	0.0	5.7	0.0	6.1	0.0
Public administration	41.2	0.0	25.7	0.0	27.3	0.0

A: Aboriginal; N: Non-Aboriginal

Table 4.7

Workers by branch of economic activity, identity and community, population aged 15 and over,
Tasiujaq, Quaqtaq and Akulivik, 2016 (%)

Industries	Tasiujaq		Quaqtaq		Akulivik	
	A.	N.	A.	N.	A.	N.
	%		%		%	
Agriculture, forest. fish. hunt.	6.5	0.0	0.0	0.0	4.5	0.0
Mining, quarrying, oil, gas	0.0	0.0	0.0	0.0	4.5	0.0
Utilities	0.0	0.0	5.9	0.0	0.0	0.0
Construction	0.0	0.0	0.0	0.0	4.5	0.0
Manufacturing	0.0	0.0	0.0	0.0	0.0	0.0
Wholesale trade	0.0	0.0	0.0	0.0	0.0	0.0
Retail trade	12.9	0.0	17.6	0.0	13.6	0.0
Transportation, warehousing	6.5	0.0	8.8	0.0	6.8	0.0
Information, cultural industries	0.0	0.0	0.0	0.0	0.0	0.0
Finance, insurance	0.0	0.0	0.0	0.0	0.0	0.0
Real estate, rental, leasing	0.0	0.0	0.0	0.0	4.5	0.0
Professional, sci., tech. services	0.0	0.0	0.0	0.0	0.0	0.0
Management of companies	0.0	0.0	0.0	0.0	0.0	0.0
Administrative, waste mgmt	0.0	0.0	0.0	0.0	0.0	0.0
Educational services	16.1	50.0	11.8	100.0	18.2	100.0
Health care, social assistance	19.4	50.0	20.6	0.0	20.5	0.0
Arts, entertainment, recreation	0.0	0.0	0.0	0.0	0.0	0.0
Accommodation, food services	0.0	0.0	0.0	0.0	4.5	0.0
Other services	6.5	0.0	5.9	0.0	0.0	0.0
Public administration	32.3	0.0	29.4	0.0	18.2	0.0

A: Aboriginal; N: Non-Aboriginal

Table 4.8

Workers by branch of economic activity, identity and community, population aged 15 and over,
Kangirsuk, Kuujjuarapik and Kangiqsujuaq, 2016 (%)

Industries	Kangirsuk		Kuujjuarapik		Kangiqsujuaq	
	A.	N.	A.	N.	A.	N.
	%		%		%	
Agriculture, forest. fish. hunt.	0.0	0.0	0.0	0.0	2.9	0.0
Mining, quarrying, oil, gas	4.5	0.0	6.3	0.0	4.3	0.0
Utilities	4.5	0.0	0.0	0.0	2.9	0.0
Construction	0.0	0.0	4.2	33.3	0.0	0.0
Manufacturing	0.0	0.0	0.0	0.0	0.0	0.0
Wholesale trade	0.0	0.0	4.2	0.0	2.9	0.0
Retail trade	13.6	33.3	8.3	0.0	8.6	0.0
Transportation, warehousing	4.5	0.0	4.2	0.0	5.7	0.0
Information, cultural industries	0.0	0.0	4.2	0.0	0.0	0.0
Finance, insurance	0.0	0.0	0.0	0.0	0.0	0.0
Real estate, rental, leasing	0.0	0.0	4.2	0.0	0.0	0.0
Professional, sci., tech. services	4.5	0.0	0.0	0.0	2.9	0.0
Management of companies	0.0	0.0	0.0	0.0	0.0	0.0
Administrative, waste mgmt	0.0	0.0	0.0	0.0	2.9	0.0
Educational services	11.4	33.3	18.8	0.0	15.7	50.0
Health care, social assistance	22.7	33.3	14.6	33.3	17.1	25.0
Arts, entertainment, recreation	0.0	0.0	6.3	0.0	2.9	0.0
Accommodation, food services	4.5	0.0	8.3	0.0	2.9	0.0
Other services	0.0	0.0	0.0	0.0	4.3	0.0
Public administration	29.5	0.0	16.7	33.3	24.3	25.0

A: Aboriginal; N: Non-Aboriginal

Table 4.9
Workers by branch of economic activity, identity and community, population aged 15 and over,
Kangiqsualujjuaq, Inukjuak and Salluit, 2016 (%)

Industries	Kangiqsualu.		Inukjuak		Salluit	
	A.	N.	A.	N.	A.	N.
	%		%		%	
Agriculture, forest. fish. hunt.	2.7	0.0	1.7	0.0	0.0	0.0
Mining, quarrying, oil, gas	5.3	0.0	3.4	0.0	3.7	22.2
Utilities	2.7	0.0	0.0	0.0	1.8	0.0
Construction	0.0	0.0	1.7	0.0	0.0	0.0
Manufacturing	0.0	0.0	0.0	0.0	0.0	0.0
Wholesale trade	0.0	0.0	1.7	0.0	0.0	0.0
Retail trade	13.3	0.0	9.5	0.0	8.3	22.2
Transportation, warehousing	2.7	0.0	4.3	0.0	1.8	22.2
Information, cultural industries	0.0	0.0	1.7	0.0	1.8	0.0
Finance, insurance	0.0	0.0	1.7	0.0	0.0	0.0
Real estate, rental, leasing	2.7	0.0	3.4	18.2	6.4	0.0
Professional, sci., tech. services	0.0	0.0	0.0	18.2	0.0	0.0
Management of companies	0.0	0.0	0.0	0.0	0.0	0.0
Administrative, waste mgmt	0.0	0.0	1.7	0.0	0.0	0.0
Educational services	13.3	60.0	16.4	27.3	9.2	33.3
Health care, social assistance	25.3	40.0	28.4	18.2	33.9	0.0
Arts, entertainment, recreation	4.0	0.0	1.7	0.0	1.8	0.0
Accommodation, food services	2.7	0.0	0.0	0.0	2.8	0.0
Other services	2.7	0.0	5.2	0.0	2.8	0.0
Public administration	22.7	0.0	17.2	18.2	25.7	0.0

A: Aboriginal; N: Non-Aboriginal

Table 4.10

Workers by branch of economic activity, identity and community, population aged 15 and over, Puvirnituk and Kuujuaq, 2016 (%)

Industries	Puvirnituk		Kuujuaq	
	A.	N.	A.	N.
	%		%	
Agriculture, forest. fish. hunt.	1.6	0.0	1.0	1.7
Mining, quarrying, oil, gas	0.0	0.0	2.5	0.0
Utilities	1.6	0.0	1.0	0.0
Construction	1.6	0.0	3.5	0.0
Manufacturing	0.0	0.0	0.0	0.0
Wholesale trade	1.6	0.0	1.0	1.7
Retail trade	5.6	0.0	8.5	5.0
Transportation, warehousing	6.4	0.0	4.0	3.3
Information, cultural industries	1.6	0.0	1.0	1.7
Finance, insurance	0.0	0.0	1.0	0.0
Real estate, rental, leasing	2.4	0.0	3.5	2.5
Professional, sci., tech. services	0.0	0.0	1.0	2.5
Management of companies	0.0	0.0	0.0	0.0
Administrative, waste mgmt	1.6	0.0	1.5	1.7
Educational services	9.6	16.7	9.5	15.7
Health care, social assistance	45.6	61.1	24.0	35.5
Arts, entertainment, recreation	0.0	0.0	1.5	0.0
Accommodation, food services	2.4	0.0	2.5	2.5
Other services	3.2	11.1	3.5	3.3
Public administration	15.2	11.1	29.5	23.1

A: Aboriginal; N: Non-Aboriginal

Table 4.11

Workers by occupation, identity and community, population aged 15 and over, Aupaluk, Umiujaq and Ivujivik, 2016 (%)

Occupations	Aupaluk		Umiujaq		Ivujivik	
	A.	N.	A.	N.	A.	N.
	%		%		%	
Management	15.0	0.0	10.7	0.0	9.7	0.0
Business, finance, administration	15.0	0.0	7.1	0.0	9.7	0.0
Natural, applied sciences	0.0	0.0	0.0	0.0	0.0	0.0
Health	0.0	0.0	0.0	0.0	0.0	0.0
Education, law, social, gov.	15.0	0.0	21.4	0.0	22.6	100.0
Art, culture, recreation, sport	10.0	0.0	7.1	0.0	6.5	0.0
Sales, service	20.0	0.0	28.6	0.0	22.6	0.0
Trades, transport, equip. operators	25.0	0.0	25.0	0.0	29.0	0.0
Natural resources, agriculture	0.0	0.0	0.0	0.0	0.0	0.0
Manufacturing, utilities	0.0	0.0	0.0	0.0	0.0	0.0

A: Aboriginal; N: Non-Aboriginal

Table 4.12

Workers by occupation, identity and community, population aged 15 and over, Tasiujaq, Quaqtaq and Akulivik, 2016 (%)

Occupations	Tasiujaq		Quaqtaq		Akulivik	
	A.	N.	A.	N.	A.	N.
	%		%		%	
Management	5.9	0.0	5.6	0.0	9.1	0.0
Business, finance, administration	11.8	0.0	8.3	0.0	6.8	0.0
Natural, applied sciences	0.0	0.0	0.0	0.0	0.0	0.0
Health	0.0	0.0	0.0	0.0	0.0	0.0
Education, law, social, gov.	17.6	50.0	16.7	100.0	20.5	100.0
Art, culture, recreation, sport	5.9	0.0	11.1	0.0	9.1	0.0
Sales, service	32.4	50.0	36.1	0.0	29.5	0.0
Trades, transport, equip. operators	20.6	0.0	22.2	0.0	15.9	0.0
Natural resources, agriculture	5.9	0.0	0.0	0.0	4.5	0.0
Manufacturing, utilities	0.0	0.0	0.0	0.0	4.5	0.0

A: Aboriginal; N: Non-Aboriginal

Table 4.13

Workers by occupation, identity and community, population aged 15 and over, Kangirsuk, Kuujjuarapik and Kangiqsujaq, 2016 (%)

Occupations	Kangirsuk		Kuujjuarapik		Kangiqsujaq	
	A.	N.	A.	N.	A.	N.
	%		%		%	
Management	11.4	0.0	6.4	22.2	9.2	0.0
Business, finance, administration	9.1	0.0	8.5	0.0	7.7	0.0
Natural, applied sciences	0.0	0.0	0.0	0.0	3.1	0.0
Health	0.0	0.0	0.0	0.0	0.0	0.0
Education, law, social, gov.	25.0	100.0	23.4	33.3	23.1	66.7
Art, culture, recreation, sport	9.1	0.0	6.4	0.0	4.6	33.3
Sales, service	25.0	0.0	38.3	22.2	30.8	0.0
Trades, transport, equip. operators	20.5	0.0	17.0	22.2	18.5	0.0
Natural resources, agriculture	0.0	0.0	0.0	0.0	3.1	0.0
Manufacturing, utilities	0.0	0.0	0.0	0.0	0.0	0.0

A: Aboriginal; N: Non-Aboriginal

Table 4.14

Workers by occupation, identity and community, population aged 15 and over, Kangiqsualujjuaq, Inukjuak and Salluit, 2016 (%)

Occupations	Kangiqsualu.		Inukjuak		Salluit	
	A.	N.	A.	N.	A.	N.
	%		%		%	
Management	8.3	0.0	5.1	0.0	3.5	0.0
Business, finance, administration	8.3	22.2	10.3	28.6	8.0	20.0
Natural, applied sciences	0.0	0.0	1.7	0.0	1.8	0.0
Health	0.0	0.0	3.4	0.0	2.7	0.0
Education, law, social, gov.	23.6	55.6	24.8	42.9	26.5	40.0
Art, culture, recreation, sport	5.6	0.0	6.0	0.0	7.1	0.0
Sales, service	33.3	0.0	25.6	28.6	30.1	20.0
Trades, transport, equip. operators	18.1	22.2	19.7	0.0	15.9	20.0
Natural resources, agriculture	2.8	0.0	3.4	0.0	2.7	0.0
Manufacturing, utilities	0.0	0.0	0.0	0.0	1.8	0.0

A: Aboriginal; N: Non-Aboriginal

Table 4.15

Workers by occupation, identity and community, population aged 15 and over, Puvirnituq and Kuujjuaq, 2016 (%)

Occupations	Puvirnituq		Kuujjuaq	
	A.	N.	A.	N.
	%		%	
Management	3.2	11.8	7.9	14.8
Business, finance, administration	11.3	29.4	16.8	17.2
Natural, applied sciences	1.6	0.0	1.5	7.4
Health	10.5	11.8	3.5	13.1
Education, law, social, gov.	20.2	23.5	14.9	28.7
Art, culture, recreation, sport	4.8	0.0	4.5	0.0
Sales, service	29.8	11.8	26.7	12.3
Trades, transport, equip. operators	14.5	11.8	22.3	6.6
Natural resources, agriculture	1.6	0.0	1.0	0.0
Manufacturing, utilities	2.4	0.0	1.0	0.0

A: Aboriginal; N: Non-Aboriginal

5 Employment Trends in Nunavik

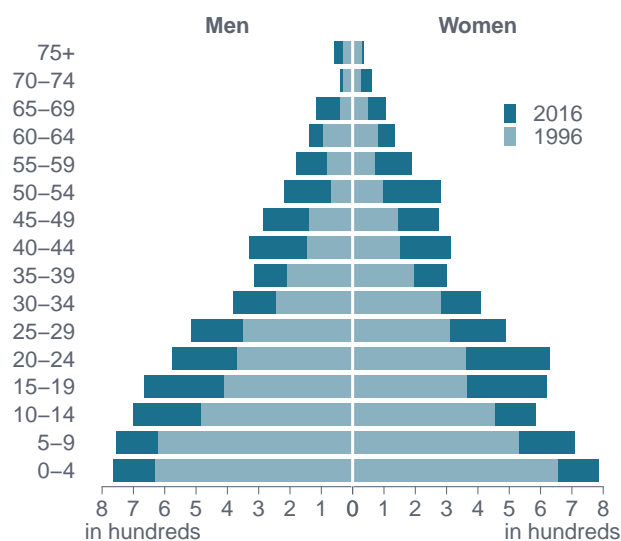
The aim of this section is to describe the principal employment trends in Nunavik by examining the changes in a selection of indicators over the last 20 years.

5.1 Changes in the working-age population

From 1996 to 2016, the Aboriginal working-age population increased from 4,180 to 7,265, an increase of 73.8%. While the 15 to 34 age group still represents the majority of the working-age population in 2016, this proportion nevertheless seems to be decreasing over time.

Figure 5.1

Population by five-year age groups, Aboriginal population of Nunavik, 1996 and 2016 (in hundreds)



Whereas it included 64.5% of the working-age population in 1996, the 15-34 year-olds represent 59.1% of this population in 2016 (figure 5.1-5.2). Hence, when calculated over this reference period, the annual growth rate of the working-age population is higher among older people than among those who are younger (table 5.1). Similarly, while Nunavik's population includes a much higher proportion of under 15-year-olds than the provincial average in 2016 (see section 1.1), the growth of this age group is slowing down, as evidenced by the change in the demographic dependency ratio, which went from 85.5% in 1996

Table 5.1

Composite annual growth rate of the Aboriginal working-age population by age group, 1996-2016 (%)

Age	Growth rate
	%
15-24	2.6
25-34	2.1
35-44	3.0
45-54	4.4
55-64	3.4

to 65% in 2016.

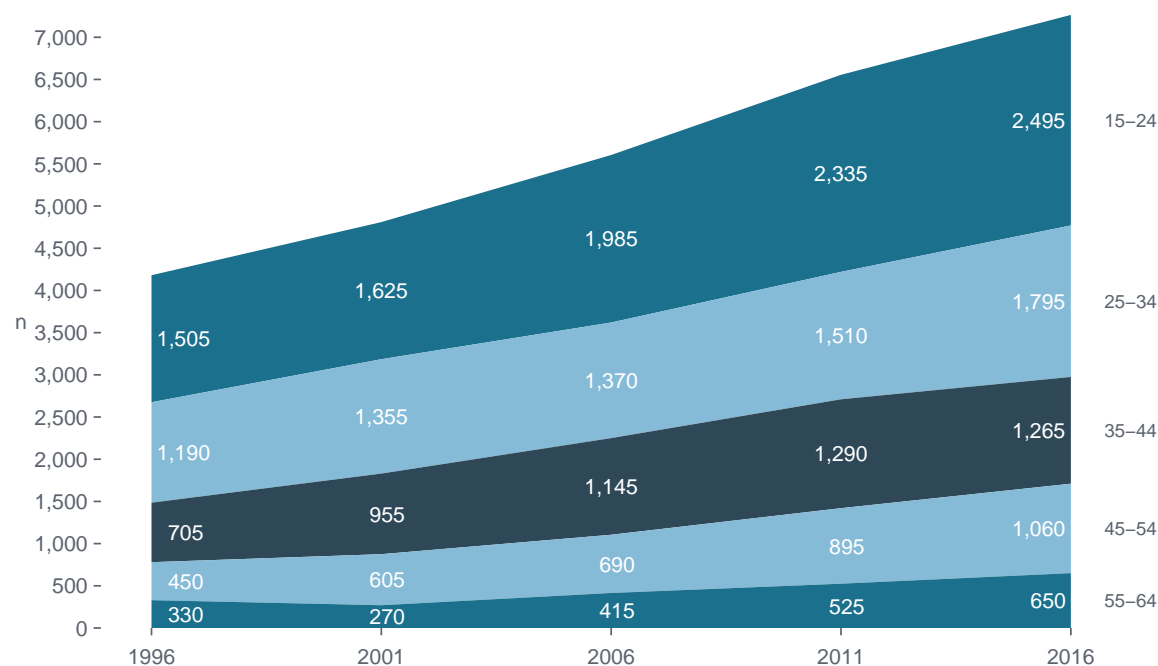
5.2 Changes in the level of education

Although the educational situation of Nunavik's Aboriginal population in 2016 differs significantly from the provincial situation, formal education has nevertheless progressed over the last 20 years, with a decrease of about 12 percentage points in the population without a diploma between 1996 and 2016 (figure 5.4). During this period, the proportion of people with a high school diploma almost doubled. As for post-secondary education, the number of people with a trade certificate increased slightly, but the proportion of people with a CEGEP degree or higher remained roughly the same.

The educational situation evolved quite differently according to gender. There was a greater increase in formal education among Aboriginal women than among men (figure 5.5-5.3). While the proportion of women without a diploma in 2016 is comparable to that of men, that proportion decreased between 1996 and 2016 by 15 percentage points for women, compared to 9 points for men. In 1996, a larger proportion of women than men held a diploma higher than high school men, and this gap appears to have widened slightly in the years that followed. The proportion of women with a CEGEP degree or higher also increased from 1996 to 2016, whereas the proportion of men with a CEGEP degree or higher decreased. On the other hand, the proportion of men with a trade school certificate as their highest diploma is generally greater than it is for women, and it too increased slightly during

Figure 5.2

Population by five-year age groups, Aboriginal population of Nunavik, 1996 and 2016 (in hundreds)



this period.

While high school graduation is generally increasing at the provincial level, in Nunavik the high school graduation rate varies considerably from year to year^[13] (figure 5.6). Consequently, there is no clear trend in annual graduation rates, since the small size of cohorts in Nunavik means that rates are strongly affected by just a few people graduating or dropping out. Nevertheless, the rolling average calculated over five years does suggest an increase in graduation rates. As for graduation according to gender, year after year the graduation rate is generally higher for women than for men, although the gap is not constant (figure 5.7). But again, the rolling average of graduation rates calculated over five years does suggest a clearer increase in graduation among women than among men.

5.3 Changes in the participation rate, employment rate, unemployment rate and work schedule

From 1996 to 2016, the participation rate of Nunavik's Aboriginal population steadily increased, reaching a level slightly higher than that of Quebec as a whole in 2016 (figure 5.8). The employment rate also increased during this period,

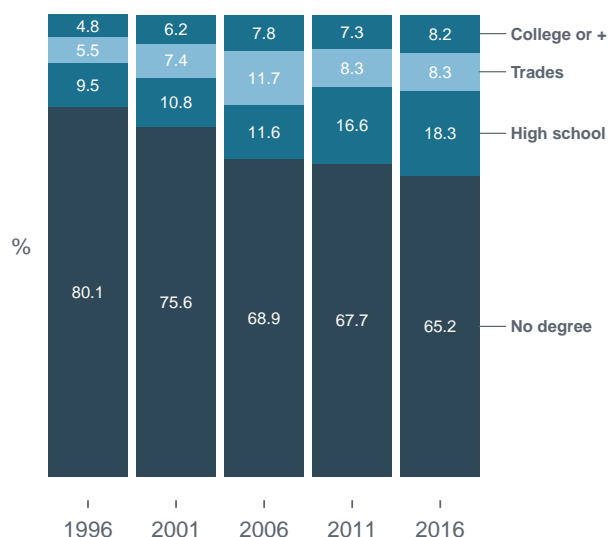
although it has always been below the provincial level. Over this 20-year period, unemployment in Nunavik does not seem to have followed the same trends as in the province. After dropping between 1996 and 2006, the unemployment rate in Quebec remained fairly stable in the subsequent two periods. In Nunavik, the unemployment rate peaked in 2006, and it has since tended to remain at a level comparable to 1996.

While the participation rate of men was slightly higher than that of women in 1996, the gap narrowed in subsequent years (figure 5.9). However, this convergence in the participation rate of men and women conceals divergent trajectories in terms of employment and unemployment. The level of unemployment remained higher for men than for women, and the peak of unemployment in 2006 was not only preceded by a gradual increase in unemployment for men, but also by a decrease in the employment rate during this period. In contrast, the employment rate of women increased from 1996 to 2016.

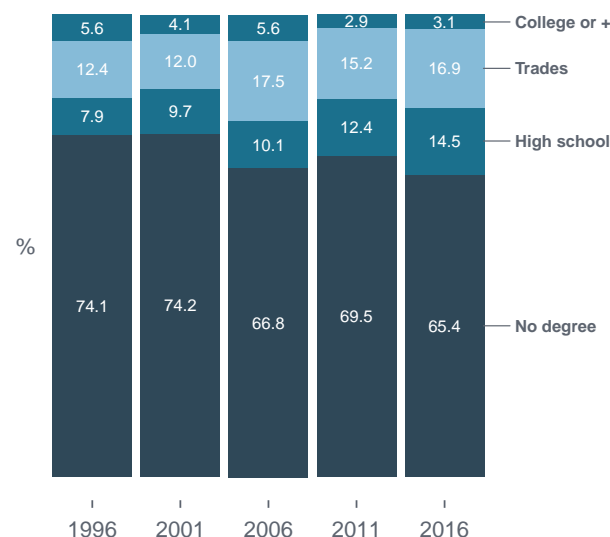
Participation and employment rates generally increased in Nunavik during the period under consideration, but this growth mainly occurred in the youngest and oldest age groups, i.e., the 15-24 and over-55 age groups (figure 5.10-5.11). In the

Figure 5.3

Highest diploma obtained, Aboriginal women of Nunavik aged 15 and over, 1996-2016 (%)

**Figure 5.4**

Highest diploma obtained, Aboriginal men of Nunavik aged 15 and over, 1996-2016 (%)



other age groups, participation rates remained fairly stable, and employment rates fluctuated slightly or even decreased slightly in certain age groups. All age groups experienced a peak in unemployment in 2006, but unlike other groups, 35–54 year-olds did not return in 2016 to levels comparable to those observed in 1996 (figure 5.12). Unemployment rates for those aged 65 and over vary widely, but this is partly due to the small size of the active population within this group.

Like the participation and employment rates, the proportion of Aboriginal workers in full-time, year-round employment^[14] increased between 1996 and 2016 (figure 5.13). In 2016, the proportion of Aboriginal workers in Nunavik who were employed full-time year-round was only four percentage points lower than that observed for all workers in Quebec as a whole.

The proportion of Aboriginals in Nunavik's total workforce increased from 76% in 1996 to 81.9% in 2016^[15] (figure 5.14).

5.4 Trends by industry

Between 2011 and 2020, the labour force employed on Nunavik's mining sites, including all categories of activity, increased by approximately 1,000 people (figure 5.15). During this period, although their numbers increased slightly, the proportion of Aboriginal workers in the labour force on these sites remained fairly stable at about

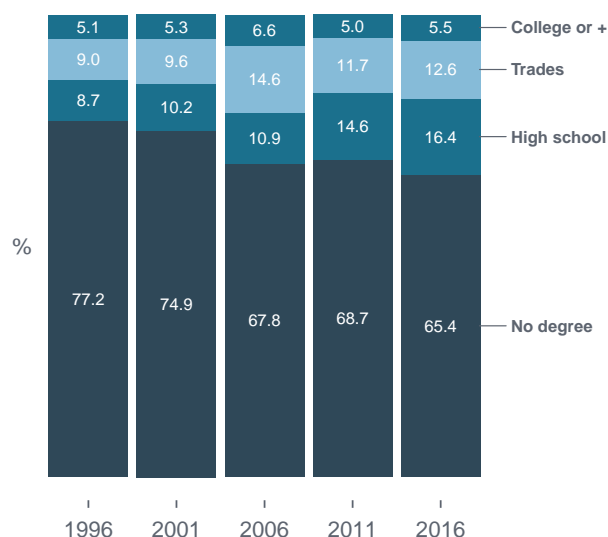
14% of the personnel. Some of the annual variation in the estimates of the number of employees may be due to the periods at which employees are counted, which differ from year to year and from company to company.

Figure 5.16 shows the changes in the distribution of Aboriginal workers in the various branches of economic activity from 2001 to 2016^[16]; an upward line corresponds to an increase in the proportion of workers in the corresponding branch. The distribution of Aboriginal workers by branch of economic activity remained fairly stable from 2001 to 2016. The most significant difference observed during this period is the growth in the proportion of Aboriginal workers employed in the health care and social assistance sector, a branch that became the largest employer as of 2016.

Figure 5.17 shows the changes from 2001 to 2016 in the proportion of Aboriginals within the total number of workers in a given industry^[17]; an upward line corresponds to a growth in the number of Aboriginal people over the total number of employees in the corresponding industry. The largest growth was in education; although the proportion of Aboriginal workers remains lower than their overall demographic weight in the region in 2016, they nevertheless seem to be occupying a growing share of positions in this branch. While less pronounced, there also appears to be growth in the proportion of Aboriginal workers in the

Figure 5.5

Highest diploma obtained, Aboriginal population of Nunavik aged 15 and over, 1996-2016 (%)



transportation and warehousing sector, as well as in health care and social assistance. In other job categories, such as the accommodation and food services sector, there is considerable variability from year to year, which may be due in part to the low number of workers in this industry.

5.5 Trends by occupation

Figure 5.18 shows the changes in the distribution of Aboriginal workers in the various occupational categories from 1996 to 2016; an upward line corresponds to an increase in the proportion of workers in the corresponding category. The distribution of workers by occupational category remained fairly stable from 1996 to 2016, although the proportion of workers in occupations related to education and government services increased significantly.

Figure 5.19 shows the changes in the distribution of Aboriginal workers in the various occupational categories from 1996 to 2016; an upward line corresponds to a growth in the number of Aboriginal people over the total number of employees in the corresponding category. Although Aboriginal workers remained under-represented in several occupational categories in 2016, there has been significant growth in their share of jobs in several categories, the largest growth being in education and government services, health care and management.

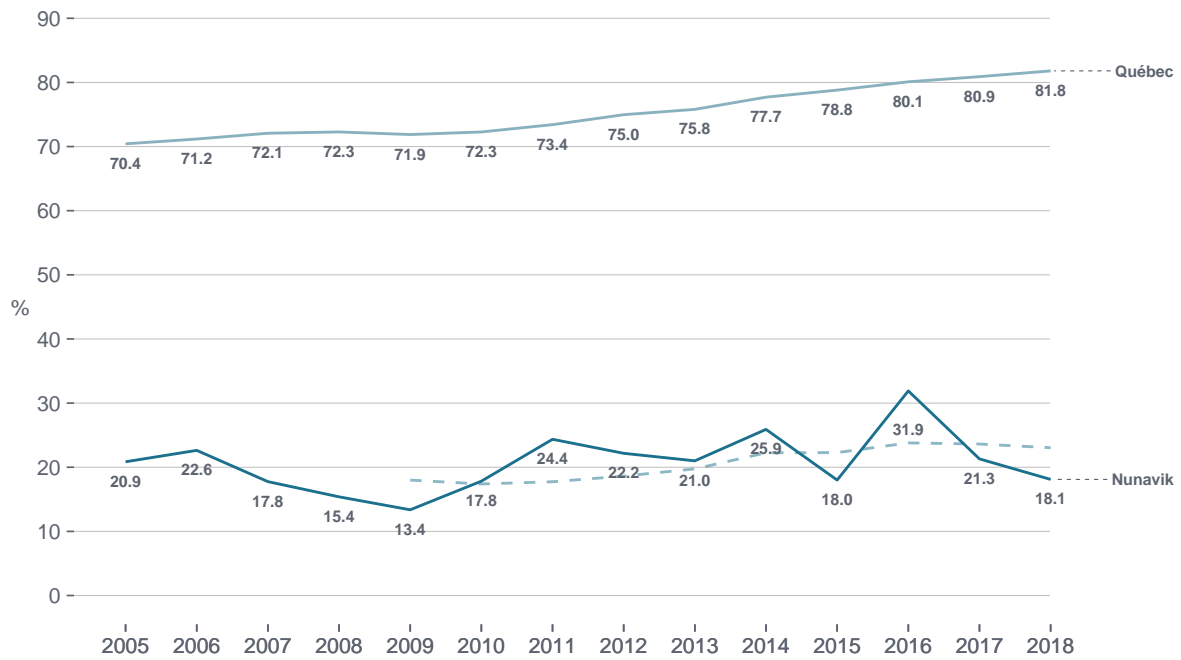
5.6 Synthesis

The various trends described in this section provide further insights into all the observations presented thus far. Demographically, although the population of Nunavik has experienced significant growth over the last two decades, there are signs suggesting that the rate of growth is slowing: most notably, a gradual decline in the region's birth rate, from about 29.8 births per 1,000 people in 1996 to 25 births in 2016^[18;19]. Thus, while the majority of Nunavik workers are still under the age of 35, the proportion of the young among the employed population in Nunavik is decreasing. The relative decrease in the proportion of children in the population has resulted in a substantial reduction in the demographic dependency ratio. Although we cannot establish a causal link between these phenomena, this reduction in the dependency ratio during the period under study was accompanied by a near-constant increase in the participation rate, the employment rate and the proportion of workers in full-time employment.

While high school graduation rates vary widely from year to year, there has been an increase in formal education over the last 20 years and a relative decline in the proportion of people without a diploma. These advances are accompanied by increases in the proportion of Aboriginal workers in certain occupational categories, particularly in education. But these trends also demonstrate that significant employment challenges remain in the region, with levels of unemployment consistently higher than those in the province as a whole and graduation rates significantly lower.

Figure 5.6

High school graduation rates by cohort over a period of 7 years, Kativik School Board and Quebec as a whole, cohorts 2006-2013 to 2011-2018 (%)



The dotted line represents the rolling average of graduation rates calculated over five years.

Figure 5.7

High school graduation rate by gender, Kativik School Board, 2006-2013 to 2011-2018 (%)



The dotted line represents the rolling average of graduation rates calculated over five years.

Figure 5.8

Participation, employment and unemployment rates, Aboriginal population of Nunavik and total population of Quebec aged 15 and over, 1996-2016 (%)

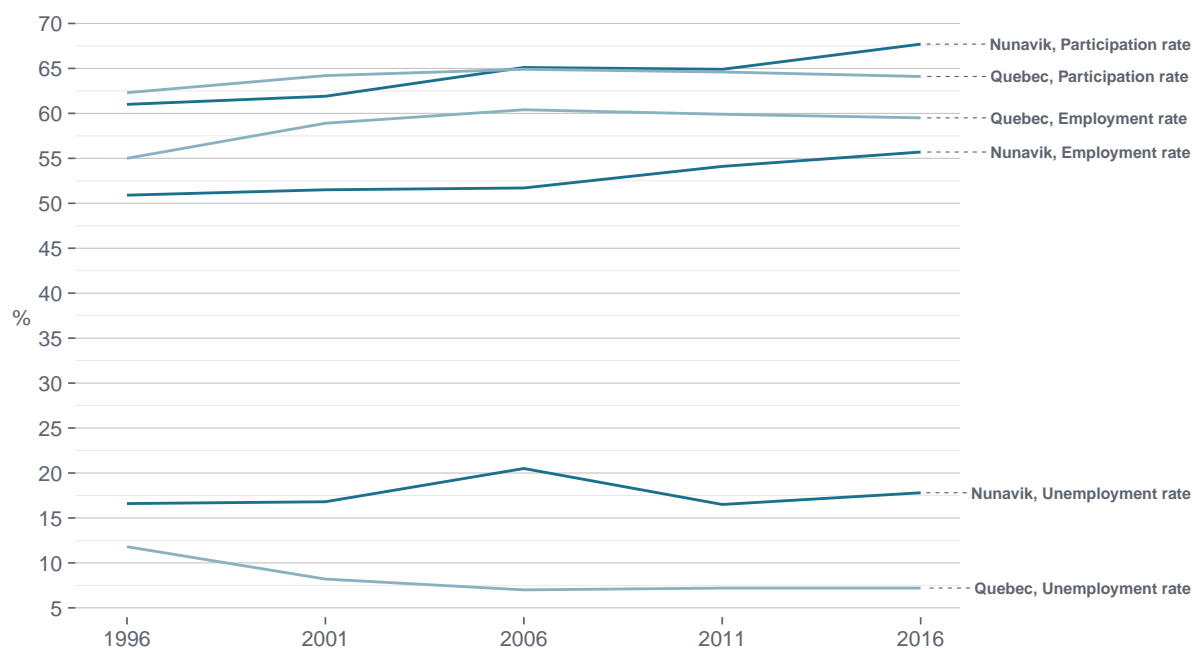


Figure 5.9

Participation, employment and unemployment rates by gender, Aboriginal population of Nunavik aged 15 and over, 1996-2016 (%)

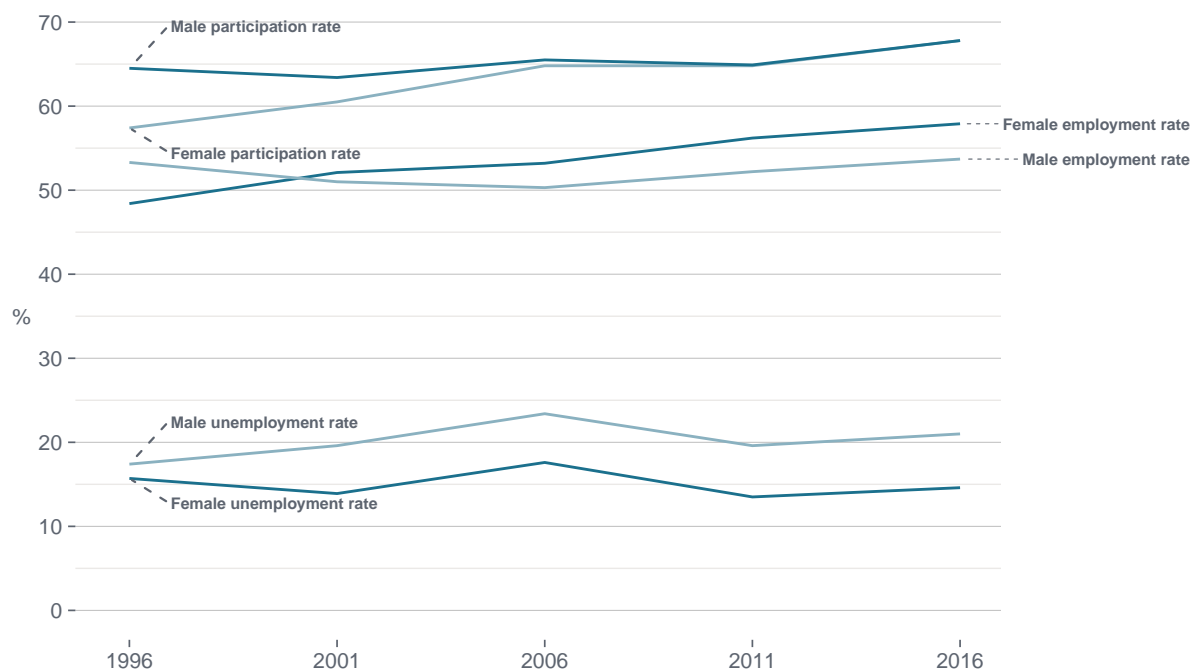


Figure 5.10

Participation rates by age, Aboriginal population of Nunavik aged 15 and over, 1996-2016 (%)

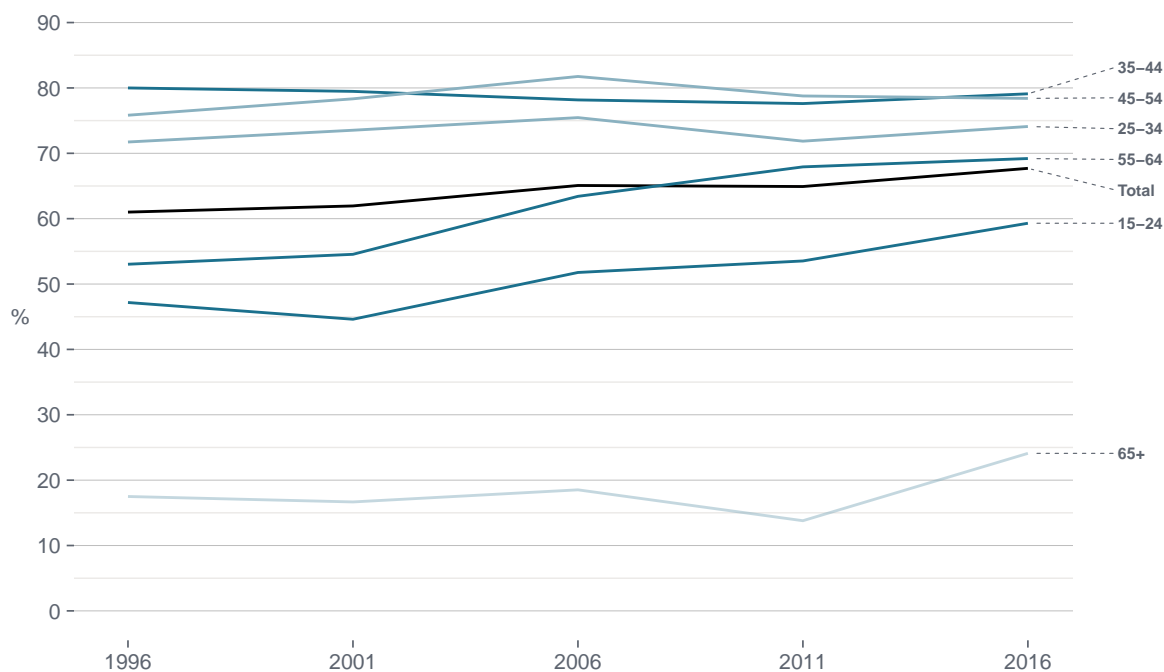


Figure 5.11

Employment rates by age, Aboriginal population of Nunavik aged 15 and over, 1996-2016 (%)

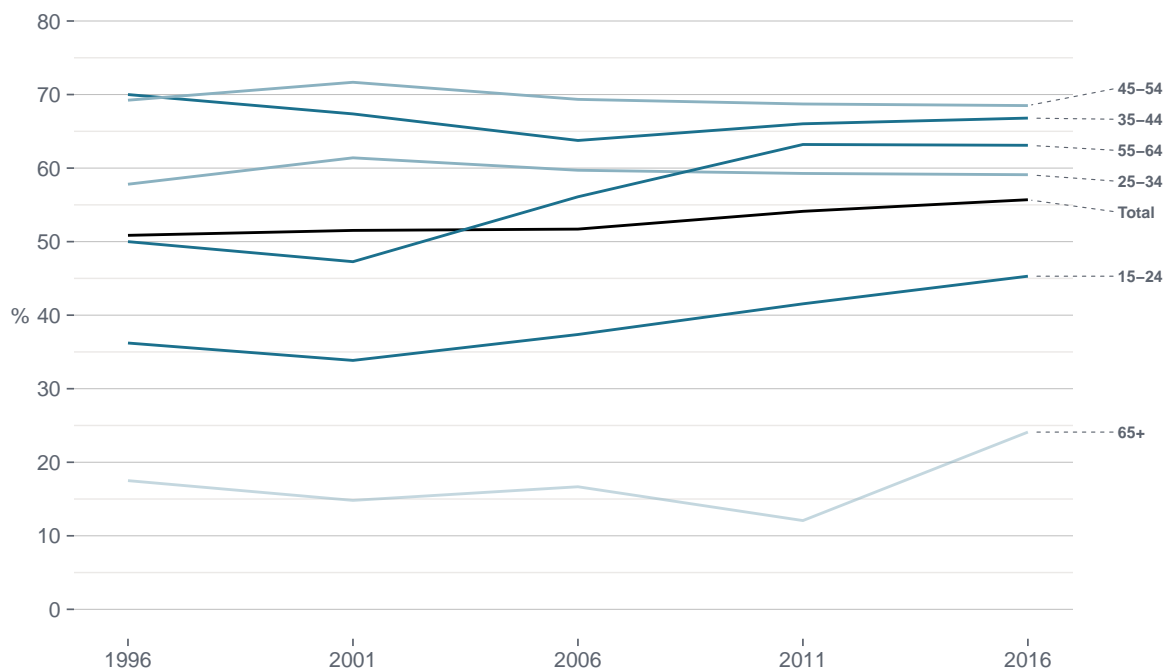


Figure 5.12

Unemployment rates by age, Aboriginal population of Nunavik aged 15 and over, 1996-2016 (%)

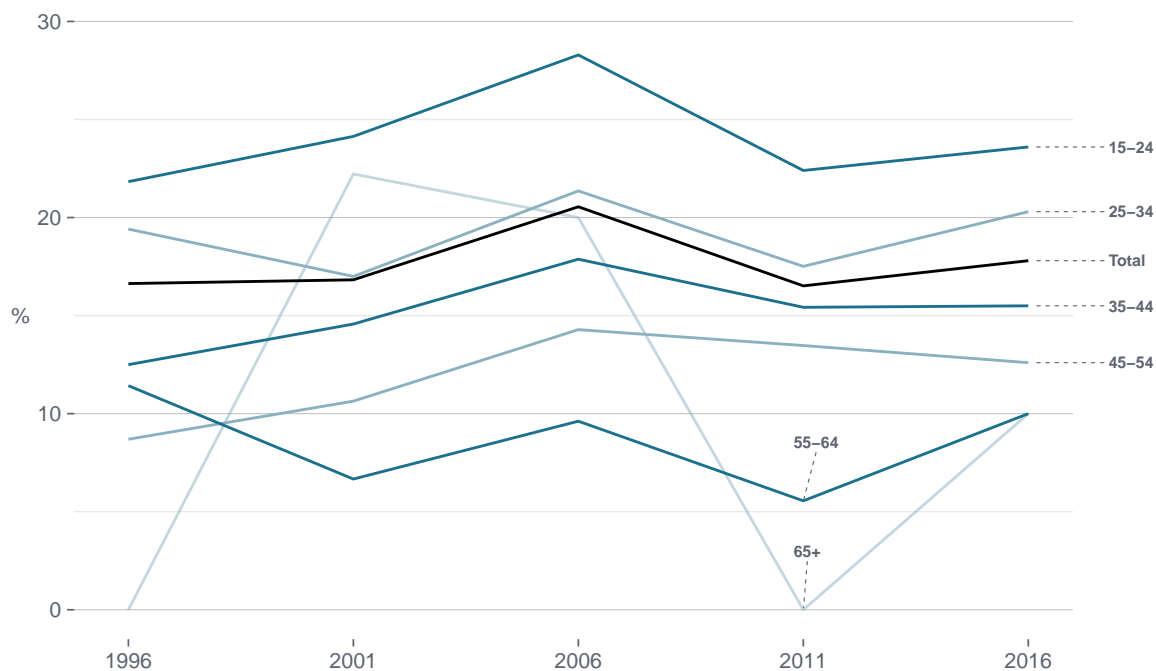


Figure 5.13

Workers by work schedule, Aboriginal population of Nunavik aged 15 and over, 1996-2016 (%)

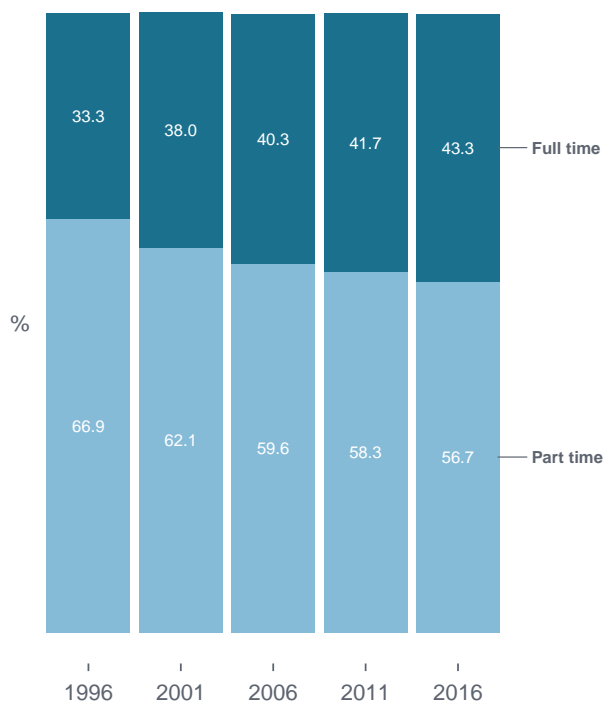


Figure 5.14

Workers by identity, population of Nunavik aged 15 and over, 1996-2016 (%)

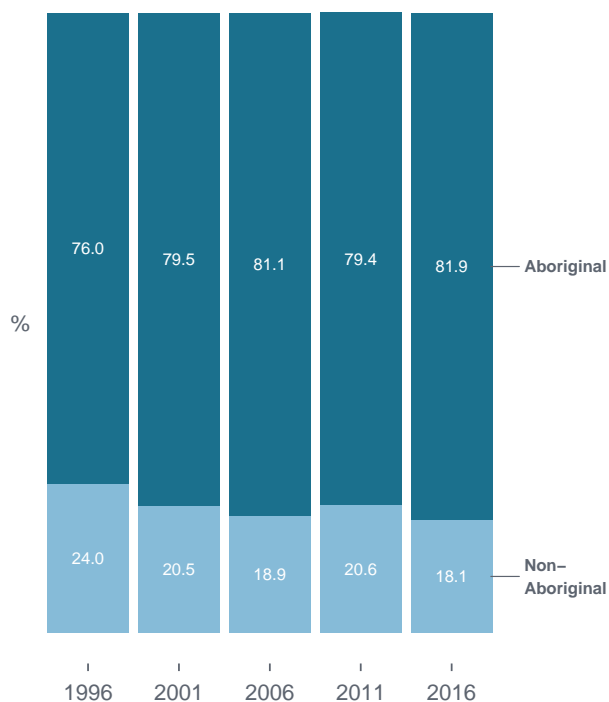


Figure 5.15
Workers by identity, workforce on Nunavik's mining sites, 2011-2020 (N)

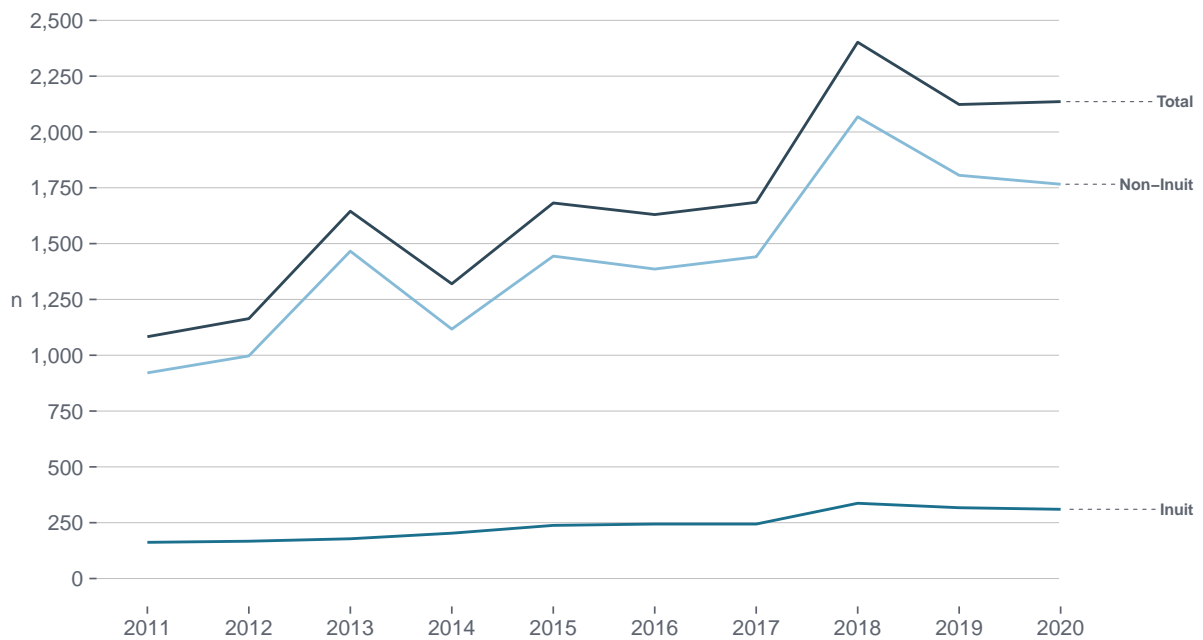


Figure 5.16
Workers by branch of economic activity, Aboriginal population of Nunavik aged 15 and over, 2001-2016 (%)

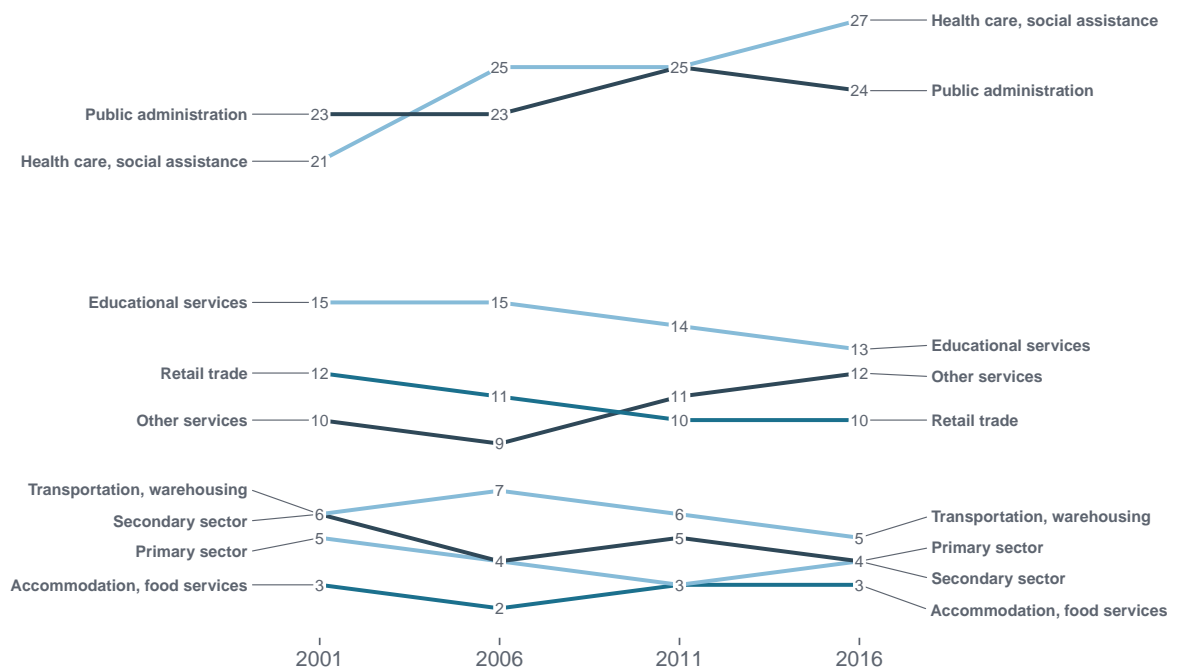


Figure 5.17

Composition of branch of economic activity by identity, population of Nunavik aged 15 and over, 2001-2016 (%)

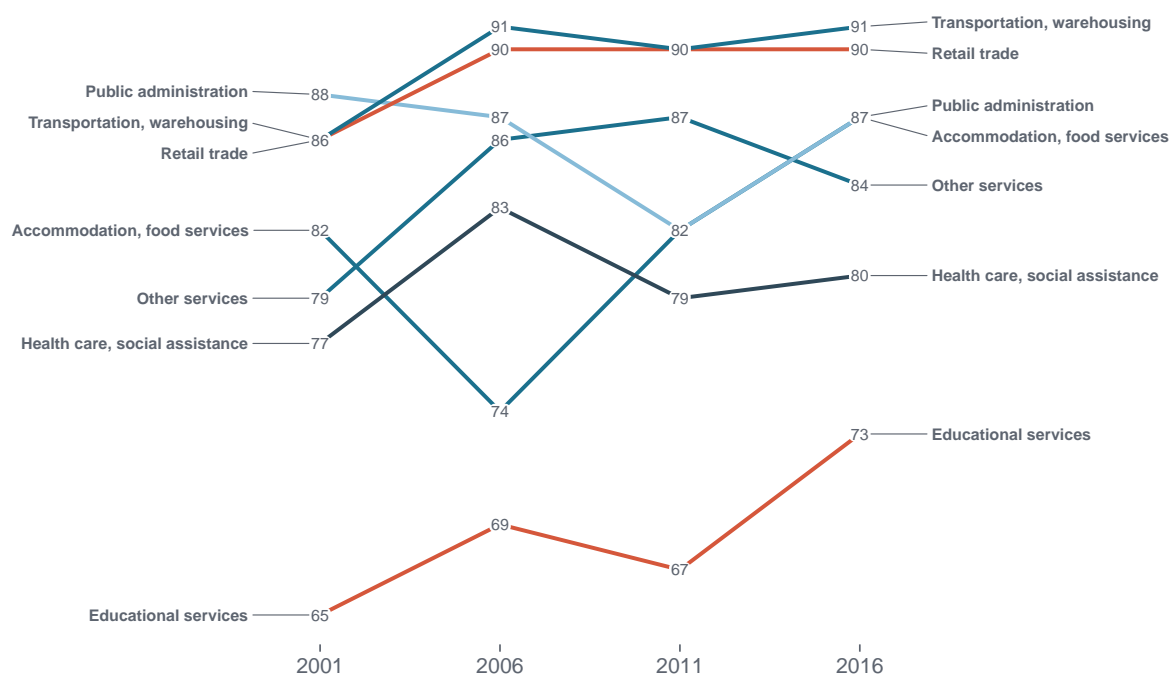


Figure 5.18

Workers by occupation, Aboriginal population of Nunavik aged 15 and over, 2001-2016 (%)

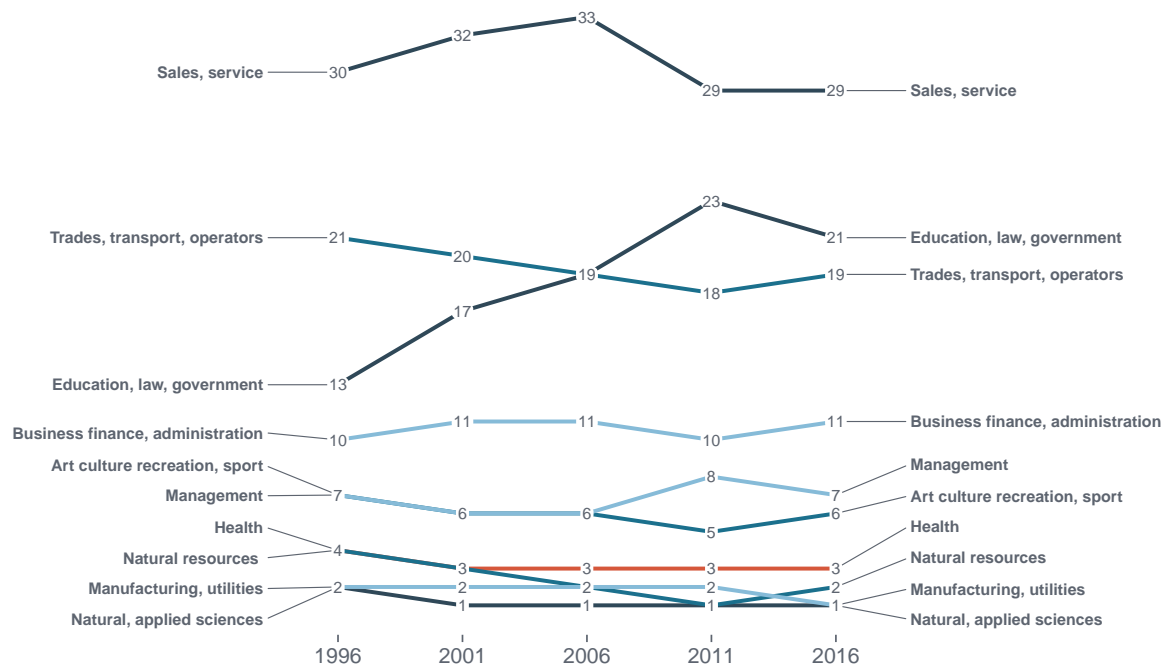
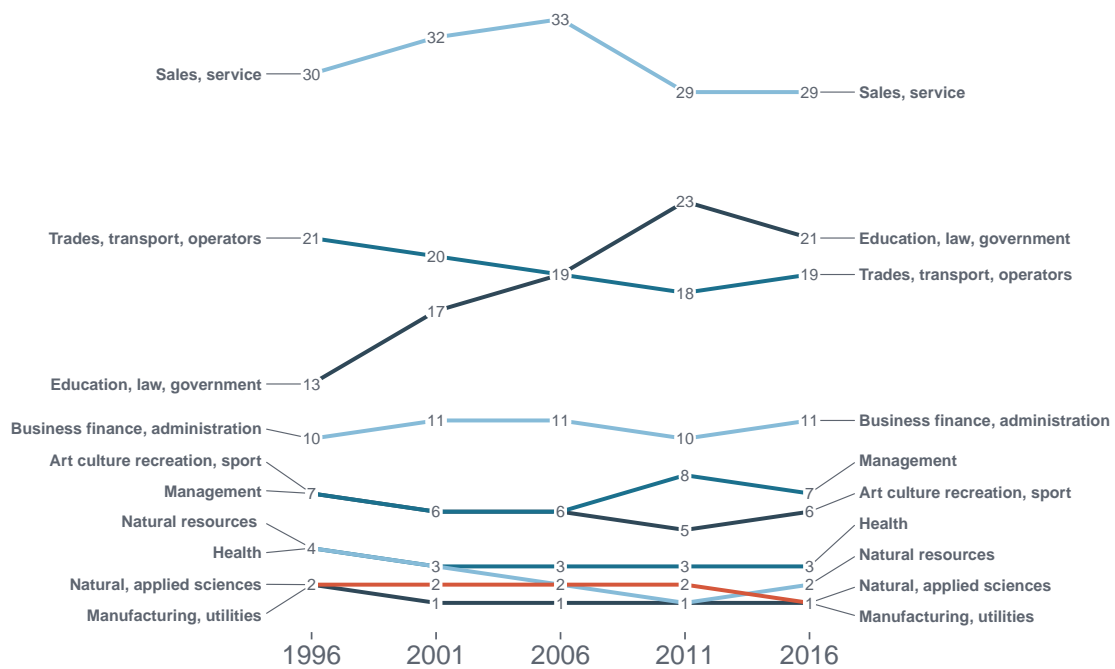


Figure 5.19
Composition of occupational categories by identity, population of Nunavik aged 15 and over,
2001-2016 (%)



6 Factors associated with employment

The previous sections have allowed us to characterize the employment situation in Nunavik and to describe the principal trends over the last two decades. Throughout the report, we have underscored significant contrasts between the employment situation in Nunavik and that in the province as a whole. Recent work has also revealed certain differences between the First Nations and the Inuit in Quebec on work-related issues, such as a generally more favourable level of employment among the Inuit than among the First Nations.

A number of characteristics that are specific to Nunavik have been highlighted up to this point; however, the descriptive statistics we have presented do not allow us to isolate the factors contributing to the current employment situation in the region. Using the census data set compiled as part of this study, this section aims to explore the relationship between the level of employment and various explanatory variables affecting all the Aboriginal communities in Quebec. More broadly, the aim of this analysis is to propose hypotheses that allow us to gain a better understanding of the employment situation in Nunavik and the differences observed between the various Aboriginal communities in Quebec.

6.1 Methodology

We have estimated the effect of different variables on the employment rate in Quebec's Aboriginal communities using a mixed linear model in which the independent variable is the employment rate, i.e. the proportion of people aged 15 and over who are employed. In the data set compiled from the censuses of 1996 to 2016, the observations cover all of Quebec's Aboriginal communities; more specifically, these observations include the following census subdivisions: Indian reserves, Indian settlements, Cree lands and villages, Naskapi lands and northern villages. A more detailed description of the model and the theoretical justifications for the variables can be found in the Appendix.

6.2 Results

The regression coefficients allow us to measure the isolated effect of each of the independent vari-

ables on the dependent variable, which in this case is the employment rate (figure 6.1). For quantitative variables, the coefficient measures the number of employment rate points that correspond to an increase of one unit of a given independent variable. For categorical variables, here the type of census subdivision, the coefficient compares the average value of each category to a reference value, which in this case is the census subdivision of the type "reserve".

There are two variables which exhibit an inverse relationship with the employment rate. A higher proportion of elders within communities appears to be associated with lower levels of employment: an increase of one percentage point in the 65-and-over age group corresponds to an approximate decrease of 0.6 percentage points in the employment rate. Larger households also appear to be associated with lower levels of employment: each additional person in the average household size corresponds to a decrease in the employment rate of about 2.5 percentage points.

With respect to the other variables expressed as a percentage, namely the proportion of non-Aboriginals, the proportion of workers speaking an Aboriginal language at work, the proportion of the population with a post-secondary education and the proportion of women within the community, all exhibit a positive relationship with the level of employment. With the exception of the proportion of workers using an Aboriginal language at work, which has a less pronounced effect, an increase of one percentage point in these indicators corresponds to an increase in the employment rate from 0.4 to 0.5 percentage points.

Lastly, in comparison to the reserves, the other types of community are associated with higher levels of employment; indeed, northern village status is associated, on average, with employment rates nearly 18 percentage points higher than the reserves. A more complete presentation of the regression coefficients and the interpretation of the results can be found in the appendices.

Its limitations notwithstanding, this exploratory model does provide some suggestions and hypotheses that allow for a better understanding of the mechanisms that can influence the level of employment in Quebec's Aboriginal communi-

Table 6.1
Description of model variables

Variable	Description
% 65 +	Proportion of the population aged 65 and over
% Non-Aboriginal	Proportion of the population of non-Aboriginal identity
% Postsec. Degree	Proportion of the population holding a diploma superior to a high school diploma
% N.O. lang. at workplace	Proportion of workers who use a language other than English or French as their primary language of work
% Women	Proportion of women in the population
Avg. Household size	Average household size
CSD Type	Type of census subdivision
Reserves	A tract of land with specific boundaries, belonging to the federal government and set apart for the use and benefit of an Indian band
I. Settlements	A place where a self-contained group of at least 10 Aboriginal persons reside more or less permanently. Settlements have no official limits and have not been set apart for the use and the benefit of an Indian band, as is the case with Indian reserves.
Cree V./T.	Cree villages and lands; parcels of land in Québec set aside for the permanent residence of Cree First Nations of Québec.
TK	Naskapi lands; parcels of land in Québec set aside for the permanent residence of Naskapi First Nations of Québec.
NV	Northern village; a municipality constituted under the Act Respecting Northern Villages and the Kativik Regional Government

ties, as well as a better grasp of the specificities of Nunavik. We need to be cautious in interpreting the relationships because the mechanisms involved are complex, especially since the scale of analyses implies that many factors and characteristics are not taken into account or are blurred by the aggregation of data at the community level.

The relationship between level of education and level of employment exemplifies this difficulty of interpretation. If, on an individual level, education favours access to employment, the association measured between the proportion of individuals with a post-secondary education and the level of employment at the community level can be more complex, since it may just as well reflect the superior integration in the labour market of the most educated as the economic vitality of a community whose economic activities require a skilled labour force. Nevertheless, while the relationship between the general level of education and the level of employment is more complex to

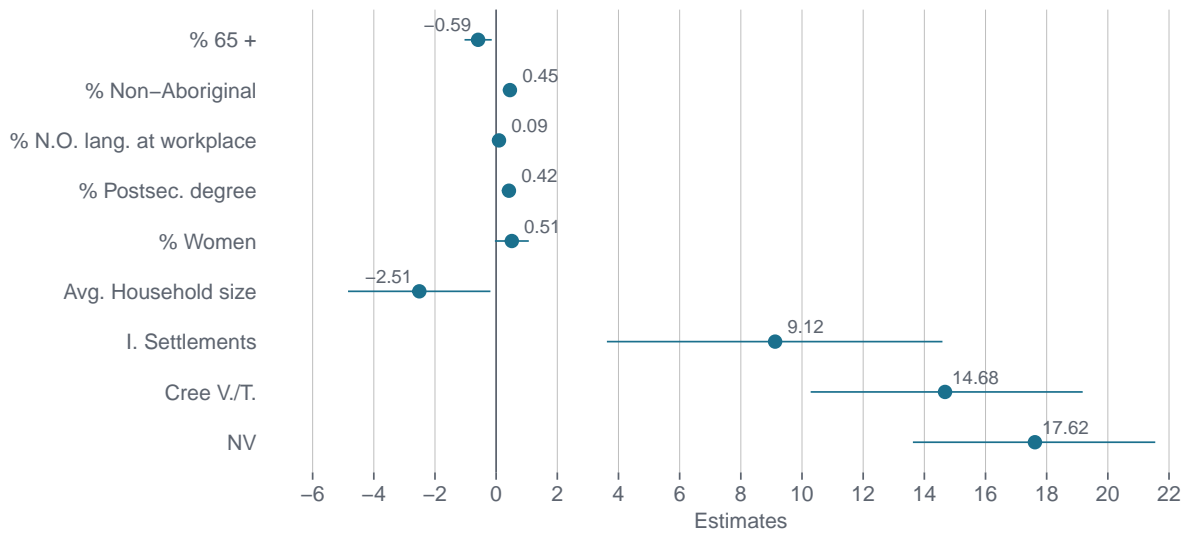
interpret at the community level than at the individual level, the fact remains that Aboriginal communities that are more educated tend to have higher employment rates, which underscores the importance of advancing formal education among these populations.

The demographic variables examined also exhibit a complex relationship with employment. A larger proportion of elders tends to be associated with lower levels of employment, since the elderly tend to be less employed than younger people. Nunavik is home to some of the youngest communities in Quebec, and this is both a strength and a challenge, as young people can promote economic growth, but are at greater risk of unemployment when there are insufficient employment and training opportunities.

The relationship between the level of employment and the proportion of women or non-Aboriginals could be related phenomena, since the communities with the most favourable employ-

Figure 6.1

Results of the regression analysis of predictors of employment rates in Quebec's Aboriginal communities (coefficients)



ment situations appear to be those with a greater concentration of non-Aboriginals or women. More specifically, there may be more non-Aboriginals in communities where positions requiring specialized skills are available; and women may be inclined to migrate to communities where there are more employment or training opportunities, among other reasons. For example, in Nunavik, Kuujuaq and Puvirnituq are two communities with higher employment rates, in addition to having a higher proportion of women.

The relationship between household size and level of employment is certainly the manifestation of several concurrent phenomena. This is a relationship of particular interest to Nunavik, because, as we suggested in the second section, the housing question seems to be at the junction of several issues, including education and employment. Communities where the average number of persons per household is higher tend to have somewhat lower levels of employment, which may be related to the barriers to employment faced by households with more dependents, just as it may be related to the greater economic hardships found in communities where there are more overcrowded dwellings. Moreover, housing conditions are not just associated with the level of employment; they also appear to have an impact on the academic performance of young people, and above all on the health of the inhabitants.

The relationship between the type of census subdivision and the level of employment is certainly a manifestation of many factors which cannot be clearly distinguished in the data set employed in this analysis. That said, the higher levels of employment in the northern and Cree villages suggest that certain factors found in the treaty communities of Quebec favour higher levels of employment than on the reserves. These differences may be related to the deficiencies of the Indian Act, but also to the various advantages and initiatives found in Nunavik which appear to promote a better employment situation, such as co-operatives or a greater local control over social programs and services.

7 Conclusion

While we do not claim to have exhausted the question of employment in Nunavik and all the issues related to it, the statistics and analyses contained in this report have contributed somewhat to a better understanding of the employment situation in the region. From the various analyses that have been presented, certain intersecting issues can be identified.

The analyses in which the situation in Nunavik is compared with that of Quebec as a whole have highlighted certain challenges facing Nunavik; in particular, the low level of high school graduation among the Nunavummiut and the rates of unemployment that are considerably higher than in Quebec at large. These comparisons with the province also serve to highlight some of Nunavik's specificities, such as its demographic profile, which is characterized by a preponderance of young people in the population, as well as its industrial structure, where health services, education and public administration represent a significant proportion of the jobs occupied by the region's inhabitants.

The analyses that are broken down according to gender also bring to light other issues and characteristics of Nunavik in terms of employment. They have shown that proportionally more women graduate high school than men, and that more women hold secondary-level degrees, as well as degrees at or above the CEGEP level. While the gender gap in unemployment is quite small in Quebec as a whole, in Nunavik the unemployment rate for women is significantly lower than for men. As in Quebec, the distribution of the labour force among different occupations and economic activities is highly differentiated by gender: women are more concentrated in jobs related to education and health, while men in Nunavik are over-represented in jobs related to public administration, which is contrary to the situation in the province where there is a certain parity.

Other analyses have highlighted age-related issues. As in Quebec, integration into the labour market is generally more tenuous among the young, whose unemployment rates are generally higher; but the situation is more pronounced in Nunavik. What is more, our analyses have found a significantly higher proportion of employed se-

niors in Nunavik than in the province as a whole.

Another feature of Nunavik underscored throughout this report is the socio-economic divide between the Aboriginal and the non-Aboriginal population. The non-Aboriginal inhabitants of Nunavik are highly skilled and nearly all of them are employed. Although they are a minority in the region, they account for a considerable proportion of the labour force in certain areas where qualified personnel appear to be more scarce. This is particularly the case in the mining sector as well as in the professions of the health care sector.

The comparative analyses based on the most recent data available have identified the principal issues and challenges in Nunavik in terms of employment, and the profiles of the different communities have also highlighted the similarities among them, as well as certain phenomena that sometimes seem to be linked to the communities' geographical location or size. The section on the trends over the last 20 years has brought to light other aspects of the situation, counterbalancing a reading that focuses exclusively on the region's difficulties. Some of Nunavik's strengths can be found here; for example, population growth may in itself be a force for economic development, although excessively rapid growth may slow economic expansion due to increased demographic dependence^[20]. The analyses also reveal the progress that has been made in certain areas, in particular, the increase in education and the higher level of employment.

The exploratory analysis of the factors associated with employment levels in Nunavik and other Aboriginal communities in Quebec suggests certain avenues that could be investigated further in order to improve our understanding of the mechanisms involved. Some of these factors, such as the impact of education, gender, age and identity, would benefit from a study at the individual level to determine how they relate to the associations observed at the community level. We have repeatedly mentioned the complexity of the relationships observed throughout this exploratory analysis. This is because the central focus of our analysis, namely employment, has been examined in isolation from the other social and economic conditions of Nunavik's population, whereas em-

ployment is in fact a complex arrangement of interrelated phenomena. And the relationships we have identified testify to this complexity. For example, observing that in those Aboriginal communities in Quebec where the average household size tends to be larger, employment levels are on average a little lower, we may doubt that there is a direct causal link between these two phenomena. However, this relationship can still be interpreted as an indication of the intertwined nature of the phenomena involved. Although the aggregate statistics blur the identification of clear patterns, in general, employment levels in Aboriginal communities do tend to vary with other indicators of social and economic conditions such as education and average household size. This same interdependence of phenomena can be seen throughout the analyses presented in this report. In the profiles of communities, for example, we saw that communities such as Kuujuaq, where employment conditions are more favourable, will generally benefit from multiple advantages, and vice versa. Similarly, although no clear causal relationship can be established, trends over the last two decades show that employment levels in Nunavik appear to have increased in parallel with declining demographic dependency and progress in formal education.

However, the data employed in this report do not allow us to delve further into the employment situation in Nunavik and the associated factors involved; not only because the use of aggregated data limits the possibilities of analysis, but also because the universe of census data does not allow us to address various dimensions that could provide further insights on this question.

Census data do not allow for a thorough enumeration of all the jobs held or available in the territory, since census respondents are surveyed at the address of their principal residence; as a result, many jobs are not captured in these statistical profiles. The analyses based on other data sources have allowed us to estimate the number of workers in the mining sector not included in the census profiles. It turns out that they are quite numerous and most of them are non-Aboriginals. Consequently, the number of jobs available in Nunavik and the proportion held by non-Aboriginals are probably underestimated in several branches of economic activity. For the

same reason, Inuit residents of Nunavik whose principal address lies outside the region may also have slipped through these statistical profiles.

Several areas that may affect employment levels in Nunavik cannot be studied using these data, notably those involving domestic work or the practice of traditional activities such as hunting and fishing. There are other dimensions that are more specific to Nunavik's economy and its communities which cannot be addressed. In particular, more information would be required to be able to better compare employment levels among Nunavik communities, such as the number of employers and their characteristics, or the number of jobs available. And a better understanding of Nunavik's economy would also require an examination of the macroeconomic factors that can affect it, such as the levels of local and outside investment, and the impact of various interventions by the different levels of government, as well as the withdrawal of those interventions. Finally, this report is primarily descriptive in nature; it does not propose a sociological interpretation of the issues examined. A rigorous interpretation of the social and economic situation of Nunavik would also require the current phenomena to be contextualized within the social transformations and upheavals resulting from the historical processes of Canadian colonization.

Notes and references

- [1] Kativik Regional Government. 2011. *Jobs in Nunavik - Results of a Survey of Nunavik Employers in 2011*. Kuujuaq. 69.
- [2] According to Statistics Canada: "Aboriginal identity" refers to persons who identify with the Aboriginal peoples of Canada. This includes those who are First Nations (North American Indian), Métis or Inuk (Inuit) and/or those who are Registered or Treaty Indians (under the Indian Act of Canada) and/or those who have membership in a First Nation or Indian band. Statistique Canada. 2017. *Dictionnaire, recensement de la population, 2016 - Identité autochtone*. <https://www12.statcan.gc.ca/census-recensement/2016/ref/dict/pop001-fra.cfm>.
- [3] Schmidt-Catran A.W. and Fairbrother M. 2016. The Random Effects in Multilevel Models: Getting Them Wrong and Getting Them Right. *European Sociological Review*, 32(1):23–38.
- [4] Statistics Canada. 2012. *Census Profile - Random Rounding*. <https://www12.statcan.gc.ca/census-recensement/2011/dp-pd/pr of/help-aide/N2.cfm?Lang=E>.
- [5] These analyses assume that the data compiled by the Kativik Regional Government include workers not enumerated in the census data. In our analyses, estimates from the data of the Regional Government are employed when the numbers are higher than those of the census.
- [6] The dependency ratio is the ratio between the number of dependants (persons aged under 15 or over 64) and the working-age population (persons between 15 and 64). The data are presented as the proportion of dependants per 100 people of working age. The World Bank. 2021. *Metadata Glossary, Age Dependency Ratio*. <https://data bank.worldbank.org/metadataglossary/gender-statistics/series/SP.POP.DPND>.
- [7] The participation rate here refers to the number of persons employed or unemployed, i.e. persons in this group who are part of the active population, as a proportion of the total number of persons aged 25-64.
- [8] The employment rate here refers to the proportion of people aged 25-64 who are employed.
- [9] The unemployment rate here refers to the proportion of persons aged 25 to 64 who are employed expressed as a percentage of the active population, i.e. those aged 25 to 64 who are employed or unemployed.
- [10] Designates the number of weeks during which persons aged 15 and over worked in paid employment or were self-employed in 2015 for all jobs held, even if only for a few hours, and whether the work in those weeks was mainly full-time (30 hours or more per week) or mainly part-time (less than 30 hours per week).
- [11] The absence of non-Aboriginals in certain tables, e.g. here in Aupaluk and Akulivik, does not mean that there were no non-Aboriginal people residing in these communities in 2016. The proportions calculated at the village level need to be interpreted with caution, since random rounding by Statistics Canada can introduce distortions, particularly in smaller communities. See section 2.4 on the limitations of the census.
- [12] Due to random rounding, all proportions calculated on small population subgroups need to be interpreted with caution, as adding or subtracting 5 people from such populations can have a significant impact on the percentages calculated.
- [13] Certain factors limit the comparability of graduation rates for Nunavik and Quebec. In particular, because the students of the Kativik School Board receive part of their early education solely in Inuktitut, they have been doing an additional year of high school since 2006-2007. This change also affects the comparison of graduation rates over time for Nunavik. In order to facilitate comparability,

all rates presented here are based on a seven-year follow-up period. Thus, the years on the x-axis represent the end of the follow-up period for the cohort; for example, the rates shown for the year 2005 were calculated for the cohort that entered high school in 1998, in accordance with a seven-year follow-up period.

- [14] Full-time workers are here defined as persons who were employed for 49 weeks or more in the reference year and who worked for at least 30 hours per week. This definition differs from the one used in the previous sections.
- [15] Not all jobs in Nunavik are counted in the census data; see Section 2.4 for more details.
- [16] In order to facilitate the comparison of the different industries over time, only the branches with the largest proportion of employees are listed here. Other industries with fewer workers were grouped together as follows: Primary sector: Agriculture, forestry, fishing and hunting; Mining, quarrying, and oil and gas extraction; Secondary sector: Construction; Manufacturing; Utilities; Other services: Wholesale trade; Information and cultural industries; Finance and insurance; Real estate and rental and leasing; Professional, scientific and technical services; Management of companies and enterprises; Administrative and support, waste management and remediation services; Arts, entertainment and recreation; Other services (except public administration). The classification of industries used in 1996 does not allow for comparison with subsequent years.
- [17] Trends for the primary and secondary sectors are not included here, since the census data exclude a large part of the labour force on mining sites.
- [18] Institut de la statistique du Québec. 2020. *Naissances, décès, accroissement naturel et mariages des MRC et des communautés urbaines, Québec, 1986-2001*. <https://statistique.quebec.ca/fr/document/naissances-municipalites-regionales-de-comte-mrc/tableau/naissances-deces-accroissement-naturel-et-mariages-des-mrc-et-des-communautes-urbaines-quebec-1986-2001>.
- [19] Institut de la statistique du Québec. 2020. *Naissances, décès, accroissement naturel et mariages par MRC, Québec, 2002-2020*. https://statistique.quebec.ca/fr/produit/tableau/naissances-deces-accroissement-naturel-et-mariages-par-mrc-quebec#tri_phe=5&tri_ra=00&tri_mrc=AAA.
- [20] E. Wesley F. Peterson. 2017. The Role of Population in Economic Growth. *SAGE Open*, 7(4):1–15.
- [21] Jean-Luc Arrègle. 2003. Les modèles linéaires hiérarchiques : 1. principes et illustration. *Management*, 6(1):1–28.
- [22] John Fox and Sanford Weisberg. 2014. *Appendix - Mixed-Effects Models in R*, In *An R Companion to Applied Regression, Second Edition*, 1–54. SAGE Publications.
- [23] Alain F. Zuur. 2009. *Mixed Effects Models and Extensions in Ecology with R*. Springer, New York. 579.
- [24] Dale J Barr, Roger Levy, Christoph Scheepers, and Harry J Tily. 2013. Random Effects Structure for Confirmatory Hypothesis Testing: Keep It Maximal. *Journal of memory and language*, 68(3):255–278.
- [25] Xavier A Harrison, Lynda Donaldson, Maria Eugenia Correa-Cano, Julian Evans, David N Fisher, Cecily E D Goodwin, Beth S Robinson, David J Hodgson, and Richard Inger. 2018. A Brief Introduction to Mixed Effects Modelling and Multi-Model Inference in Ecology. *PeerJ*, 6:1–32.
- [26] Benjamin J Stephens. 2010. The Determinants of Labour Force Status among Indigenous Australians. *Australian Journal of Labour Economics*, 13(3):287–312.
- [27] Anne Daly. 1993. The Determinants of Employment for Aboriginal People. *Australian Economic Papers*, 32(60):134–151.
- [28] Matthew Gray and Boyd Hunter. 2005. The Labour Market Dynamics of Indigenous Australians. *Journal of Sociology*, 41(4):386–405.

- [29] Belayet Hossain and Laura Lamb. 2012. The Impact of Human and Social Capital on Aboriginal Employment Income in Canada. *Economic Papers: A journal of applied economics and policy*, 31(4):440–450.
- [30] Boyd Hunter. 2004. *Indigenous Australians in the Contemporary Labour Market*. Centre for Aboriginal Economic Policy Research, Canberra. 159.
- [31] Krishna Pendakur and Ravi Pendakur. 2018. The Effects of Modern Treaties and Opt-In Legislation on Household Incomes in Aboriginal Communities. *Social Indicators Research*, 137(1):139–165.
- [32] Krishna Pendakur and Ravi Pendakur. 2021. The Impact of Self-Government, Comprehensive Land Claims and Opt-in Arrangements on Income Inequality in Indigenous Communities in Canada. *Canadian Public Policy*, 47(2):181–201.
- [33] Fernando M. Aragón. 2015. Do Better Property Rights Improve Local Income?: Evidence from First Nations’ Treaties. *Journal of Development Economics*, 116:43–56.
- [34] Melissa Moyser. 2017. *Les Autochtones vivant hors réserve et le marché du travail : Estimations de l’Enquête sur la population active, 2007 à 2015*. Statistique Canada, Ottawa. 27.
- [35] Timothy Heleniak and Dmitry Bogoyavlensky. Arctic Populations and Migration. In Joan Nyman and Larsen (eds.) and Gail Fondahl, editors, *Arctic Human Development Report: Regional Processes and Global Linkages*, 53–104. Nordic Council of Ministers, Copenhagen, 2015.
- [36] Stephanie Martin. 2009. The Effects of Female Out-Migration on Alaska Villages. *Polar Geography*, 32(1-2):61–67.
- [37] Rasmus Ole Rasmussen. 2009. Gender and Generation: Perspectives on Ongoing Social and Environmental Changes in the Arctic. *Signs*, 34(3):524–532.
- [38] World Health Organization. Household Crowding. In *WHO Housing and Health Guidelines*, 21–30. World Health Organization, Geneva, 2018.
- [39] The systematic rejection of results that do not reach a predetermined threshold of statistical significance is increasingly being questioned. Some people recommend interpreting the p-value as a continuous measure where the closer p is to 0, the less the data supports the model predicted by the test (in this case the absence of a relationship). Others encourage according more importance to confidence intervals (presented here in the CI column of table 62) in order to quantify the uncertainty of the estimates’ precision. Valentin Amrhein, Sander Greenland, and Blake McShane. 2019. Retire Statistical Significance. *Nature*, 567:305–307.
- [40] Excluding the Northeastern Quebec Agreement, since the difference between the status of Naskapi lands and reserves is not statistically significant, which may be due to the low number of observations.
- [41] Institut de la statistique du Québec. 2020. *Projections de Population - Le Québec*. <https://statistique.quebec.ca/fr/document/projections-de-population-le-quebec>.
- [42] Institut de la statistique du Québec. 2019. *Perspectives démographiques du Québec et des régions, 2016-2066*. Institut de la statistique du Québec, Québec. 86.
- [43] The univariate projections were made using a TBATS model. Alysha M. De Livera, Rob J. Hyndman, and Ralph D. Snyder. 2011. Forecasting Time Series With Complex Seasonal Patterns. Using Exponential Smoothing. *Journal of the American Statistical Association*, 106(496):1513–1527.
- [44] Institut de la statistique du Québec. 2020. *Naissances, décès, accroissement naturel et mariages des MRC et des communautés urbaines, Québec, 1986-2001*. <https://statistique.quebec.ca/fr/document/naissances-municipalites-regionales-de-comte-mrc/tableau/naissances-deces-accroissement-nature>

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-urbaines-quebec-1986-2001.

Appendices

8 Supplementary Tables

Table 8.1

Population distribution by age and identity, Nunavik, 2016 (N)

Age	Nunavik		
	Total	Aboriginal	Non- Aboriginal
	<i>N</i>		
0-14	4,410	4,305	110
15-24	2,540	2,495	45
25-34	2,130	1,795	330
35-44	1,455	1,265	190
45-54	1,245	1,060	185
55-64	860	650	215
65+	475	415	60

Table 8.2

Highest diploma obtained by gender and age, Aboriginal population of Nunavik, 2016 (N)

Educational attainment	Nunavik		
	Total	Female	Male
	<i>N</i>		
Age, 15 and over			
No degree	5,025	2,510	2,510
High school	1,260	705	555
Apprenticeship or trades	970	325	650
College or university	425	315	120
Age, 25-64			
No degree	2,795	1,410	1,380
High school	775	430	350
Apprenticeship or trades	825	280	540
College or university	375	265	110

Table 8.3

Highest diploma obtained by identity and age, population of Nunavik, 2016 (N)

Educational attainment	Nunavik		
	Total	Aboriginal	Non- Aboriginal
	<i>N</i>		
Age, 15 and over			
No degree	5,070	5,025	50
High school	1,355	1,260	105
Apprenticeship or trades	1,085	970	115
College or university	1,190	425	760
Age, 25-64			
No degree	2,820	2,795	30
High school	860	775	85
Apprenticeship or trades	930	825	105
College or university	1,080	375	705

Table 8.4

Active population, employed and unemployed by gender, Aboriginal population of Nunavik, 2016 (N)

Indicators	Nunavik		
	Total	Female	Male
	<i>N</i>		
Age, 15 and over			
Active	5,200	2,605	2,600
Employed	4,280	2,225	2,060
Unemployed	925	380	545
Age, 25-64			
Active	3,620	1,805	1,815
Employed	3,050	1,575	1,475
Unemployed	570	230	340

Table 8.5

Active population, employed and unemployed by identity, population of Nunavik, 2016 (N)

Indicators	Nunavik		
	Total	Aboriginal	Non-Aboriginal
	<i>N</i>		
Age, 15 and over			
Active	6,170	5,200	970
Employed	5,225	4,280	945
Unemployed	945	925	20
Age, 25-64			
Active	4,510	3,620	890
Employed	3,920	3,050	870
Unemployed	590	570	20

Table 8.6

Active population, employed and unemployed by age, Aboriginal population of Nunavik, 2016 (N)

Age	Nunavik		
	Active	Employed	Unemployed
	<i>N</i>		
Total	5,200	4,280	925
15-24	1,480	1,130	350
25-34	1,330	1,060	270
35-44	1,000	845	155
45-54	835	730	105
55-64	450	410	45
65+	100	100	10

Table 8.7

Workers by work schedule and gender, Aboriginal population of Nunavik aged 15 and over, 2016 (N)

Work schedule	Nunavik		
	Total	Female	Male
	<i>N</i>		
Full-time	3,980	1,985	1,995
Part-time	1,475	795	675

Table 8.8

Workers by work schedule and identity, population of Nunavik aged 15 and over, 2016 (N)

Work schedule	Nunavik		
	Total	Aboriginal	Non- Aboriginal
	<i>N</i>		
Full-time	4,915	3,980	935
Part-time	1,515	1,475	40

Table 8.9

Workers by branch of economic activity and gender, Aboriginal population of Nunavik aged 15 and over, 2016 (N)

Branch	Nunavik		
	Total	Female	Male
	<i>N</i>		
Agriculture, forestry, fishing, hunting	50	0	45
Mining, quarrying, oil, gas extraction	145	45	100
Utilities	80	0	75
Construction	75	15	60
Manufacturing	15	10	15
Wholesale trade	35	10	25
Retail trade	480	240	245
Transportation, warehousing	245	75	170
Information, cultural industries	50	25	20
Finance, insurance	10	10	10
Real estate, rental, leasing	155	55	95
Professional, scientific, technical services	30	10	25
Management of companies, enterprises	10	0	10
Administrative, support, waste mgmt	55	20	35
Educational services	625	450	175
Health care, social assistance	1,305	995	310
Arts, entertainment, recreation	95	35	60
Accommodation, food services	130	95	35
Other services	155	55	100
Public administration	1,175	355	815

Table 8.10

Workers by branch of economic activity and identity, population of Nunavik aged 15 and over, 2016
(N)

Branch	Nunavik	
	Aboriginal	Non- Aboriginal
	<i>N</i>	
Agriculture, forestry, fishing, hunting	50	0
Mining, quarrying, oil, gas extraction	145	10
Utilities	80	0
Construction	75	15
Manufacturing	15	0
Wholesale trade	35	0
Retail trade	480	55
Transportation, warehousing	245	25
Information, cultural industries	50	10
Finance, insurance	10	10
Real estate, rental, leasing	155	25
Professional, scientific, technical services	30	15
Management of companies, enterprises	10	0
Administrative, support, waste mgmt	55	10
Educational services	625	235
Health care, social assistance	1,305	325
Arts, entertainment, recreation	95	10
Accommodation, food services	130	25
Other services	155	25
Public administration	1,175	175

Table 8.11

Composition of branch of economic activity by identity, workforce on mining sites in Nunavik and population of Nunavik aged 15 and over, 2016 (N)

Branch	Nunavik	
	Aboriginal	Non- Aboriginal
	<i>N</i>	
Agriculture, forestry, fishing, hunting	50	0
Mining, quarrying, oil, gas extraction	234	1,239
Utilities	80	0
Construction	75	127
Manufacturing	15	0
Wholesale trade	35	0
Retail trade	480	55
Transportation, warehousing	245	25
Information, cultural industries	50	10
Finance, insurance	10	10
Real estate, rental, leasing	155	25
Professional, scientific, technical services	30	15
Management of companies, enterprises	10	0
Administrative, support, waste mgmt	55	10
Educational services	625	235
Health care, social assistance	1,305	325
Arts, entertainment, recreation	95	10
Accommodation, food services	130	25
Other services	155	25
Public administration	1,175	175

Table 8.12

Workers by occupation and gender, Aboriginal population of Nunavik aged 15 and over, 2016 (N)

Occupations	Nunavik		
	Total	Female	Male
	<i>N</i>		
Management	325	150	175
Business, finance, administration	535	425	110
Natural, applied sciences	50	10	40
Health	160	130	35
Education, law, social, gov.	1,015	805	215
Art, culture, recreation, sport	295	155	135
Sales, service	1,420	755	665
Trades, transport, equipment operators	945	40	900
Natural resources, agriculture	90	10	85
Manufacturing, utilities	70	10	55

Table 8.13

Workers by occupation and identity, population of Nunavik aged 15 and over, 2016 (N)

Industries	Nunavik	
	Aboriginal	Non- Aboriginal
	<i>N</i>	
Management	325	125
Business, finance, administration	535	150
Natural, applied sciences	50	45
Health	160	110
Education, law, social, gov.	1,015	345
Art, culture, recreation, sport	295	10
Sales, service	1,420	115
Trades, transport, equipment operators	945	65
Natural resources, agriculture	90	0
Manufacturing, utilities	70	0

Table 8.14

Demographic structure by community, population of Nunavik, 2016 (N)

Community	Population by age group						
	0-14	15-24	25-34	35-44	45-54	55-64	65+
	<i>N</i>						
Akulivik	250	130	75	70	45	50	20
Aupaluk	70	40	40	20	20	10	10
Inukjuak	650	300	285	200	165	90	65
Ivujivik	140	95	60	40	45	25	10
Kangiqsualujjuaq	320	190	150	95	105	50	35
Kangiqsujuaq	240	155	120	100	65	45	20
Kangirsuk	175	130	80	70	50	30	35
Kuujjuaq	735	460	525	340	310	245	110
Kuujjuarapik	215	120	130	75	75	50	25
Puvirnituk	670	335	245	175	155	115	60
Quaqtaq	135	80	80	35	30	30	10
Salluit	525	300	230	160	120	85	55
Tasiujaq	115	95	60	35	30	15	10
Umiujaq	165	100	55	45	45	15	10

Table 8.15

Highest diploma obtained by age and community, Aboriginal population of Nunavik, 2016 (N)

Community	No degree		High school		Trades		College or university	
	15+	25-54	15+	25-54	15+	25-54	15+	25-54
	<i>N</i>		<i>N</i>		<i>N</i>		<i>N</i>	
Akulivik	305	155	50	25	20	10	10	10
Aupaluk	85	45	10	10	30	15	0	20
Inukjuak	600	315	220	125	185	145	55	45
Ivujivik	195	95	35	20	30	20	0	10
Kangiqsualujjuaq	420	225	100	45	40	30	15	10
Kangiqsujuaq	305	145	45	20	90	65	35	20
Kangirsuk	210	80	45	25	80	55	25	20
Kuuujuaq	735	340	310	175	175	120	135	95
Kuujuarapik	240	120	75	60	70	50	35	20
Puvirnituaq	775	370	140	100	50	35	35	15
Quaqtaq	150	60	20	15	70	55	0	0
Salluit	690	345	130	70	55	45	30	15
Tasiujaq	160	60	20	10	30	25	20	20
Umiujaq	155	65	50	25	45	35	10	10

Table 8.16

Active population, employed and unemployed by identity, population of Nunavik aged 25 to 54, 2016 (N)

Community	Aboriginal			Non-Aboriginal		
	Active	Empl.	Unempl.	Active	Empl.	Unempl.
	<i>N</i>			<i>N</i>		
Akulivik	130	110	15	0	10	0
Aupaluk	65	50	10	0	10	0
Inukjuak	425	335	90	20	25	0
Ivujivik	105	80	25	10	10	0
Kangiqsualujjuaq	240	190	50	25	25	0
Kangiqsujuaq	220	165	55	30	30	0
Kangirsuk	140	110	25	25	20	10
Kuuujuaq	630	565	65	435	425	10
Kuujuarapik	170	135	35	30	25	10
Puvirnituaq	390	350	40	55	50	0
Quaqtaq	115	90	30	10	10	0
Salluit	345	290	55	25	25	0
Tasiujaq	90	80	15	10	10	10
Umiujaq	100	80	15	10	10	0

Table 8.17

Active population, employed and unemployed by identity, population of Nunavik aged 15 and over, 2016 (N)

Community	Aboriginal			Non-Aboriginal		
	Active	Empl.	Unempl.	Active	Empl.	Unempl.
	<i>N</i>			<i>N</i>		
Akulivik	225	185	40	0	0	0
Aupaluk	100	75	25	0	10	0
Inukjuak	655	500	150	35	35	0
Ivujivik	175	140	35	10	10	0
Kangiqsualujjuaq	410	320	90	35	35	0
Kangiqsujaq	345	255	90	35	35	0
Kangirsuk	245	205	45	30	25	0
Kuuujuaq	1,030	905	120	610	600	15
Kuujuarapik	250	200	55	45	40	0
Puvirnituq	660	575	85	80	75	0
Quaqtaq	195	155	40	20	20	0
Salluit	590	495	95	35	40	0
Tasiujaq	170	140	25	15	10	0
Umiujaq	160	135	30	10	10	0

Table 8.18

Workers by work schedule and identity and community, population of Nunavik aged 15 and over, 2016 (N)

Community	Aboriginal		Non-Aboriginal	
	Full-time	Part-time	Full-time	Part-time
	<i>N</i>		<i>N</i>	
Akulivik	160	60	0	0
Aupaluk	70	25	0	0
Inukjuak	460	195	30	0
Ivujivik	135	40	10	0
Kangiqsualujjuaq	295	130	30	0
Kangiqsujaq	270	100	35	10
Kangirsuk	175	85	20	0
Kuuujuaq	885	235	600	20
Kuujuarapik	205	75	45	0
Puvirnituq	475	200	75	0
Quaqtaq	140	60	20	0
Salluit	445	180	30	0
Tasiujaq	125	50	15	0
Umiujaq	135	35	10	0

Table 8.19

Workers by branch of economic activity, identity and community, population aged 15 and over,
Aupaluk, Umiujaq and Ivujivik, 2016 (N)

Industries	Aupaluk		Umiujaq		Ivujivik	
	A.	N.	A.	N.	A.	N.
	<i>N</i>		<i>N</i>		<i>N</i>	
Agriculture, forest. fish. hunt.	0	0	0	0	10	0
Mining, quarrying, oil, gas	0	0	10	0	0	0
Utilities	0	0	10	0	0	0
Construction	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0
Wholesale trade	0	0	0	0	0	0
Retail trade	10	0	15	0	20	0
Transportation, warehousing	10	0	10	0	10	0
Information, cultural industries	0	0	10	0	0	0
Finance, insurance	0	0	0	0	0	0
Real estate, rental, leasing	0	0	0	0	0	0
Professional, sci., tech. Services	0	0	0	0	0	0
Management of companies	0	0	0	0	0	0
Administrative, waste mgmt	0	0	0	0	0	0
Educational services	15	0	30	10	25	10
Health care, social assistance	15	0	25	0	35	0
Arts, entertainment, recreation	0	0	10	0	0	0
Accommodation, food services	0	0	0	0	10	0
Other services	0	0	10	0	10	0
Public administration	35	0	45	0	45	0

A: Aboriginal; N: Non-Aboriginal

Table 8.20

Workers by branch of economic activity, identity and community, population aged 15 and over,
Tasiujaq, Quaqtaq and Akulivik, 2016 (N)

Industries	Tasiujaq		Quaqtaq		Akulivik	
	A.	N.	A.	N.	A.	N.
	<i>N</i>		<i>N</i>		<i>N</i>	
Agriculture, forest. fish. hunt.	10	0	0	0	10	0
Mining, quarrying, oil, gas	0	0	0	0	10	0
Utilities	0	0	10	0	0	0
Construction	0	0	0	0	10	0
Manufacturing	0	0	0	0	0	0
Wholesale trade	0	0	0	0	0	0
Retail trade	20	0	30	0	30	0
Transportation, warehousing	10	0	15	0	15	0
Information, cultural industries	0	0	0	0	0	0
Finance, insurance	0	0	0	0	0	0
Real estate, rental, leasing	0	0	0	0	10	0
Professional, sci., tech. Services	0	0	0	0	0	0
Management of companies	0	0	0	0	0	0
Administrative, waste mgmt	0	0	0	0	0	0
Educational services	25	10	20	15	40	10
Health care, social assistance	30	10	35	0	45	0
Arts, entertainment, recreation	0	0	0	0	0	0
Accommodation, food services	0	0	0	0	10	0
Other services	10	0	10	0	0	0
Public administration	50	0	50	0	40	0

A: Aboriginal; N: Non-Aboriginal

Table 8.21

Workers by branch of economic activity, identity and community, population aged 15 and over,
Kangirsuk, Kuujjuarapik and Kangiqsujaq, 2016 (N)

Industries	Kangirsuk		Kuujjuarapik		Kangiqsujaq	
	A.	N.	A.	N.	A.	N.
	<i>N</i>		<i>N</i>		<i>N</i>	
Agriculture, forest. fish. hunt.	0	0	0	0	10	0
Mining, quarrying, oil, gas	10	0	15	0	15	0
Utilities	10	0	0	0	10	0
Construction	0	0	10	10	0	0
Manufacturing	0	0	0	0	0	0
Wholesale trade	0	0	10	0	10	0
Retail trade	30	10	20	0	30	0
Transportation, warehousing	10	0	10	0	20	0
Information, cultural industries	0	0	10	0	0	0
Finance, insurance	0	0	0	0	0	0
Real estate, rental, leasing	0	0	10	0	0	0
Professional, sci., tech. Services	10	0	0	0	10	0
Management of companies	0	0	0	0	0	0
Administrative, waste mgmt	0	0	0	0	10	0
Educational services	25	10	45	0	55	20
Health care, social assistance	50	10	35	10	60	10
Arts, entertainment, recreation	0	0	15	0	10	0
Accommodation, food services	10	0	20	0	10	0
Other services	0	0	0	0	15	0
Public administration	65	0	40	10	85	10

A: Aboriginal; N: Non-Aboriginal

Table 8.22

Workers by branch of economic activity, identity and community, population aged 15 and over,
Kangiqsualujjuaq, Inukjuak and Salluit, 2016 (N)

Industries	Kangiqsualu.		Inukjuak		Salluit	
	A.	N.	A.	N.	A.	N.
	<i>N</i>		<i>N</i>		<i>N</i>	
Agriculture, forest. fish. hunt.	10	0	10	0	0	0
Mining, quarrying, oil, gas	20	0	20	0	20	10
Utilities	10	0	0	0	10	0
Construction	0	0	10	0	0	0
Manufacturing	0	0	0	0	0	0
Wholesale trade	0	0	10	0	0	0
Retail trade	50	0	55	0	45	10
Transportation, warehousing	10	0	25	0	10	10
Information, cultural industries	0	0	10	0	10	0
Finance, insurance	0	0	10	0	0	0
Real estate, rental, leasing	10	0	20	10	35	0
Professional, sci., tech. Services	0	0	0	10	0	0
Management of companies	0	0	0	0	0	0
Administrative, waste mgmt	0	0	10	0	0	0
Educational services	50	15	95	15	50	15
Health care, social assistance	95	10	165	10	185	0
Arts, entertainment, recreation	15	0	10	0	10	0
Accommodation, food services	10	0	0	0	15	0
Other services	10	0	30	0	15	0
Public administration	85	0	100	10	140	0

A: Aboriginal; N: Non-Aboriginal

Table 8.23

Workers by branch of economic activity, identity and community, population aged 15 and over, Puvirnituk and Kuujuaq, 2016 (N)

Industries	Puvirnituk		Kuujuaq	
	A.	N.	A.	N.
	<i>N</i>		<i>N</i>	
Agriculture, forest. fish. hunt.	10	0	10	10
Mining, quarrying, oil, gas	0	0	25	0
Utilities	10	0	10	0
Construction	10	0	35	0
Manufacturing	0	0	0	0
Wholesale trade	10	0	10	10
Retail trade	35	0	85	30
Transportation, warehousing	40	0	40	20
Information, cultural industries	10	0	10	10
Finance, insurance	0	0	10	0
Real estate, rental, leasing	15	0	35	15
Professional, sci., tech. Services	0	0	10	15
Management of companies	0	0	0	0
Administrative, waste mgmt	10	0	15	10
Educational services	60	15	95	95
Health care, social assistance	285	55	240	215
Arts, entertainment, recreation	0	0	15	0
Accommodation, food services	15	0	25	15
Other services	20	10	35	20
Public administration	95	10	295	140

A: Aboriginal; N: Non-Aboriginal

Table 8.24

Workers by occupation, identity and community, population aged 15 and over, Aupaluk, Umiujaq and Ivujivik, 2016 (N)

Occupations	Aupaluk		Umiujaq		Ivujivik	
	A.	N.	A.	N.	A.	N.
	<i>N</i>		<i>N</i>		<i>N</i>	
Management	15	0	15	0	15	0
Business, finance, administration	15	0	10	0	15	0
Natural, applied sciences	0	0	0	0	0	0
Health	0	0	0	0	0	0
Education, law, social, gov.	15	0	30	0	35	10
Art, culture, recreation, sport	10	0	10	0	10	0
Sales, service	20	0	40	0	35	0
Trades, transport, equip. operators	25	0	35	0	45	0
Natural resources, agriculture	0	0	0	0	0	0
Manufacturing, utilities	0	0	0	0	0	0

A: Aboriginal; N: Non-Aboriginal

Table 8.25

Workers by occupation, identity and community, population aged 15 and over, Tasiujaq, Quaqtaq and Akulivik, 2016 (N)

Occupations	Tasiujaq		Quaqtaq		Akulivik	
	A.	N.	A.	N.	A.	N.
	<i>N</i>		<i>N</i>		<i>N</i>	
Management	10	0	10	0	20	0
Business, finance, administration	20	0	15	0	15	0
Natural, applied sciences	0	0	0	0	0	0
Health	0	0	0	0	0	0
Education, law, social, gov.	30	10	30	15	45	10
Art, culture, recreation, sport	10	0	20	0	20	0
Sales, service	55	10	65	0	65	0
Trades, transport, equip. operators	35	0	40	0	35	0
Natural resources, agriculture	10	0	0	0	10	0
Manufacturing, utilities	0	0	0	0	10	0

A: Aboriginal; N: Non-Aboriginal

Table 8.26

Workers by occupation, identity and community, population aged 15 and over, Kangirsuk, Kuujjuarapik and Kangiqsujaq, 2016 (N)

Occupations	Kangirsuk		Kuujjuarapik		Kangiqsujaq	
	A.	N.	A.	N.	A.	N.
	<i>N</i>		<i>N</i>		<i>N</i>	
Management	25	0	15	10	30	0
Business, finance, administration	20	0	20	0	25	0
Natural, applied sciences	0	0	0	0	10	0
Health	0	0	0	0	0	0
Education, law, social, gov.	55	15	55	15	75	20
Art, culture, recreation, sport	20	0	15	0	15	10
Sales, service	55	0	90	10	100	0
Trades, transport, equip. operators	45	0	40	10	60	0
Natural resources, agriculture	0	0	0	0	10	0
Manufacturing, utilities	0	0	0	0	0	0

A: Aboriginal; N: Non-Aboriginal

Table 8.27

Workers by occupation, identity and community, population aged 15 and over, Kangiqsualujjuaq, Inukjuak and Salluit, 2016 (N)

Occupations	Kangiqsualu.		Inukjuak		Salluit	
	A.	N.	A.	N.	A.	N.
	<i>N</i>		<i>N</i>		<i>N</i>	
Management	30	0	30	0	20	0
Business, finance, administration	30	10	60	10	45	10
Natural, applied sciences	0	0	10	0	10	0
Health	0	0	20	0	15	0
Education, law, social, gov.	85	25	145	15	150	20
Art, culture, recreation, sport	20	0	35	0	40	0
Sales, service	120	0	150	10	170	10
Trades, transport, equip. operators	65	10	115	0	90	10
Natural resources, agriculture	10	0	20	0	15	0
Manufacturing, utilities	0	0	0	0	10	0

A: Aboriginal; N: Non-Aboriginal

Table 8.28

Workers by occupation, identity and community, population aged 15 and over, Puvirnituk and Kuujjuaq, 2016 (N)

Occupations	Puvirnituk		Kuujjuaq	
	A.	N.	A.	N.
	<i>N</i>		<i>N</i>	
Management	20	10	80	90
Business, finance, administration	70	25	170	105
Natural, applied sciences	10	0	15	45
Health	65	10	35	80
Education, law, social, gov.	125	20	150	175
Art, culture, recreation, sport	30	0	45	0
Sales, service	185	10	270	75
Trades, transport, equip. operators	90	10	225	40
Natural resources, agriculture	10	0	10	0
Manufacturing, utilities	15	0	10	0

A: Aboriginal; N: Non-Aboriginal

9 Factors associated with employment – Additional information

This appendix aims to present our model's methodology in more detail, the literature justifying the selection of the variables, as well as the observed relationships.

9.1 Methodology

The effect of different variables on the employment rate in Quebec's Aboriginal communities was estimated using a mixed linear model in which the independent variable is the employment rate, i.e. the proportion of people aged 15 and over who are employed. In the data set compiled from the censuses of 1996 to 2016, the observations cover all of Quebec's Aboriginal communities; more specifically, these observations include the following census subdivisions: Indian reserves, Indian settlements, Cree lands and villages, Naskapi lands and northern villages.

The selection of the variables in the model we employed was based on the model comparison with the help of likelihood ratio tests, the level of statistical significance of the coefficients obtained, and the Akaike and Bayesian information criteria; and these tests and measurements were also used to assess the necessity of including (or not including) originally fixed or random intercepts, as well as fixed or random slopes^[21;22;23]. These random effects allow for the control of the non-independence of the observations by permitting the points of intersection of the original ordinates or the regression slopes to vary according to the non-independent units. In the case of the data used for this study, the observations (i.e. the Aboriginal communities) were subjected to repeated measurements over several years. Hence, our model includes intercepts that vary according to the community. However, while it is recommended to define a model with a maximum structure of the random effects^[24], i.e. by including as far as possible random slopes in addition to the intercepts, more complex specifications generally require a large number of observations^[25] and our data set does not include enough of these.

On the basis of the variables available, the factors cited in the literature and our assumptions, the effect of various indicators on employment was tested and measured. The different variables selected and their theoretical justification are pre-

sented here.

Age can affect employment status in a number of ways. On an individual level, younger people's integration into the labour market is more tenuous than that of people who are slightly older, due in part to experience^[26]. Age data can also serve as an indicator of the demographic composition of the population, particularly to account for the size of the dependent population, i.e. children and the elderly. In our data set, the only age indicator with a statistically significant relationship to the employment rate is the proportion of people aged 65 and over; so this indicator was retained to measure the effect of age on employment.

The ethnic composition of a population can have an impact on employment indicators when socio-economic divisions exist between the groups. The relationship between employment and ethnicity is complex and will not be the subject of an exhaustive discussion here. In an Aboriginal context, it should be noted that, on a regional scale, ethnic composition can affect the employment rate for a variety of reasons, including both supply and demand^[27]. Aboriginal peoples often engage in subsistence activities, activities that are productive but unpaid and which are not included in employment statistics. Also, when there are marked socio-economic inequalities between ethnic groups, it is often because disadvantaged groups face various barriers to employment, in some cases, owing to a lack of formal education, in others, due to discrimination. Furthermore, in the isolated regions of Quebec, when there are jobs that cannot be filled by the local population, non-Aboriginal workers often come to fill these positions. In order to assess and attempt to account for these phenomena, the proportion of the population within the communities that is not identified as Aboriginal was included in the model.

Education is a factor strongly associated with employment status, a relationship observed in both the global and Aboriginal populations^[28;29]. While the association between employment status and level of education may vary according to geographic location and certain community characteristics such as size^[30], no statistically significant relationship was found when we measured

Table 9.1
Description of model variables

Variable	Description
% 65 +	Proportion of the population aged 65 and over
% Non-Aboriginal	Proportion of the population of non-Aboriginal identity
% Postsec. Degree	Proportion of the population holding a diploma superior to a high school diploma
% N.O. lang. at workplace	Proportion of workers who use a language other than English or French as their primary language of work
% Women	Proportion of women in the population
Avg. Household size	Average household size
CSD Type	Type of census subdivision
Reserves	A tract of land with specific boundaries, belonging to the federal government and set apart for the use and benefit of an Indian band
I. Settlements	A place where a self-contained group of at least 10 Aboriginal persons reside more or less permanently. Settlements have no official limits and have not been set apart for the use and the benefit of an Indian band, as is the case with Indian reserves.
Cree V./T.	Cree villages and lands; parcels of land in Québec set aside for the permanent residence of Cree First Nations of Québec.
TK	Naskapi lands; parcels of land in Québec set aside for the permanent residence of Naskapi First Nations of Québec.
NV	Northern village; a municipality constituted under the Act Respecting Northern Villages and the Kativik Regional Government

the interaction between education and the type of census subdivision. The education indicator we retained is the proportion of people with a diploma or certificate higher than a high school diploma.

The type of census subdivision was incorporated into the model to account for differences in employment that vary according to the status of communities, such as reserves or villages benefiting from modern treaties, since it has been observed that such treaties tend to increase employment income within households^[31] as well as reduce income inequalities^[32]. These differences could be attributable to the various economic and decision-making levers that are not available to the reserves but which may stimulate economic activity, including better property rights^[33] that allow, among other things, for land to be leased, mortgages to be taken out and monetary compensation to be obtained^[31], as well as royalties resulting from extractive activities^[32].

Employment exhibits a complex relationship with gender; in particular, women are more likely than men to withdraw from the labour market to care for their children, which can result in lower employment rates^[34]. On the other hand, in some Arctic Aboriginal communities, women sometimes migrate from communities with more difficult living conditions to centres where there are more employment and training opportunities^[35;36;37]. The proportion of women in the population was retained as a gender indicator to account for these phenomena.

Indicators related to Aboriginal culture have been studied, some of which suggest that an attachment to traditional culture results in less active involvement in the labour market^[26]. The only parameter in the census that allows us to include a cultural dimension in this study is language. Various language-related variables were tested; the only one with a statistically significant relationship with the employment rate is the

Table 9.2

Results of the regression analysis of the predictors of the employment rate in Quebec's Aboriginal communities

Predictors	Estimates	CI	p		df
(Intercept)	7.79	-24.45 to 40.04	0.636		122
% 65 +	-0.59	-1.03 to -0.15	0.009	**	122
% Non-Aboriginal	0.45	0.25 to 0.65	<0.001	***	122
% N.O. lang. at workplace	0.09	0.03 to 0.16	0.007	**	122
% Postsecondary degree	0.42	0.27 to 0.57	<0.001	***	122
% Women	0.51	-0.04 to 1.06	0.067	.	122
Average household size	-2.51	-4.82 to -0.21	0.033	*	122
CSD Type (Reservations)	-	-	-		-
CSD Type (I. Settlements)	9.12	3.72 to 14.52	0.001	***	122
CSD Type (Cree V./T.)	14.68	10.33 to 19.02	<0.001	***	122
CSD Type (TK)	4.23	-4.69 to 13.16	0.353		122
CSD Type (NV)	17.62	13.73 to 21.50	<0.001	***	122
. p<0.1 * p<0.05 ** p<0.01 *** p<0.001					
Random Effects					
σ^2	32.04				
τ_{00} Communities	8.22				
ICC	0.2				
N Communities	49				
Observations	135				
Marginal R ²	0.727				
Conditional R ²	0.783				

language spoken at work. More specifically, the proportion of workers who use neither English nor French as their main language of work was retained as a cultural indicator.

Average household size was included in the model, since the size of a household may affect employment, particularly since a large household may result from a large number of children and seniors, while in other cases it may reflect overcrowded housing conditions – both factors that appear to be associated with lower employment rates in Aboriginal communities^[26]. Moreover, household overcrowding is an indicator generally associated with several dimensions of social deprivation, such as poor health conditions, income poverty and school success^[38].

9.2 Results

This section describes the results of the model we adopted. The regression coefficients allow us to measure the isolated effect of each of the inde-

pendent variables on the dependent variable, i.e. the employment rate (table 9.2). For quantitative variables, the coefficient measures the number of points of the employment rate that correspond to an increase of one unit of a given independent variable. For categorical variables (in this case, the type of census subdivision), the coefficient compares the average value of each category to a reference value, in this case the census subdivision of the type "reserve".

We see that there is an inverse relationship between the proportion of people aged 65 and over and the employment rate: an increase of one percentage point in the population aged 65 and over corresponds to a decrease in the employment rate of 0.59 points. This relationship may in part be due to the way in which the employment rate is measured by Statistics Canada, where it is understood as the proportion of people aged 15 and over who are employed. Given that people

over 65 are often retired, a higher proportion of elders in a population can therefore result in a lower employment rate.

Ethnic composition also exhibits an association with the employment rate: each additional percentage point of non-Aboriginals in the population corresponds to an increase of a little less than half a point in the employment rate. This complex relationship may just as well reflect characteristics of the populations that are not detected by the census variables as it does the characteristics of the economy in these localities. For example, those communities with the greatest ethnic diversity may also be those that tend to offer the most employment opportunities.

Although the measured effect is rather small, there is nevertheless a positive relationship between the proportion of workers whose principal language of work is neither English nor French and the employment rate in Aboriginal communities. In other words, the use of Aboriginal languages in the workplace appears to be associated with slightly higher employment rates, a relationship that may be explained by the local population's better integration into the labour market when Aboriginal languages are used more often in the workplace.

At the collective level of the Aboriginal communities, education has a similar relationship to that observed at the individual level, i.e. communities with a greater proportion of people with a diploma superior to high school tend to have higher employment rates: each additional percentage point of this indicator corresponds to an average gain of 0.42 points in the employment rate. Theories of human capital contend that an individual's level of formal education favours his or her employability, a relationship we seem to observe here at the community level as well. The lack of a statistically significant relationship between the type of census subdivision and the proportion of the population with a post-secondary education suggests that there is no statistical evidence strong enough to support the idea of a marked difference between the types of communities in terms of the effect of education on the employment rate, at least not according to this data set.

The relationship of the dependent variable with the proportion of women is not statistically significant at the conventional threshold of <0.05 , but

is at the threshold of <0.10 ^[39]. If we retain the latter threshold as sufficient evidence to reject the hypothesis of no effect, we see that the employment rates are higher in Aboriginal communities where the proportion of women is greater. If it is not a statistical artifact, this relationship could, among other things, be a consequence of the phenomenon of female migration, i.e., there appear to be more women in communities where employment prospects are better or, more broadly, where living conditions are more favourable.

Average household size has a negative association with the employment rate: an additional person in the household size is associated, on average, with a decrease of 2.5 percentage points in the employment rate. This complex relationship could reflect, *inter alia*, the effect of a larger dependent population on employment, as well as the social disadvantages associated with overcrowded housing.

The type of census subdivision is strongly linked to the employment rate: compared to the reserves, which serve as the reference value, the employment rates are higher in all the other types of census subdivisions. It is in the Cree and Inuit communities that the gap with the reserves is greatest, with an average difference in the employment rate of 14.6 and 17.6 percentage points, respectively. While such a strong association between the type of census subdivision and the employment rate may be related to factors that cannot be observed from the available variables, the higher average employment rates in the Cree and Inuit communities may also be due to factors resulting from their status, and from other initiatives related to the James Bay and Northern Quebec Agreement^[40].

10 Demographic projections

10.1 Introduction

Despite their imperfections, population projections provide decision-makers with useful data, particularly for the planning of social programs. In Quebec, the Institut de la statistique du Québec (ISQ)^[41] produces demographic projections corresponding to various geographic levels, including the regional county municipality (RCM) of the Kativik Regional Government.

The aim of the present analysis is, firstly, to gather the most recent official demographic projections of the ISQ for the population of Nunavik. Given the absence of specific projections for Nunavik's Aboriginal population, our second objective is to estimate the growth of that population, as well as the Aboriginal population aged 15 and over and the employed population.

10.2 Methodology

The methodology employed by the ISQ can be found in the publication *Perspectives démographiques du Québec et des régions, 2016-2066*^[42]. Our projections of the Aboriginal population were calculated from univariate models trained on census data from 1996 to 2016. For each data series, we selected the projection method by splitting the data set into a training series and a test series; the model selected was the one best able to estimate the value of the test series according to an examination of deviation indicators and the trend line^[43].

10.3 Limitations

Demographic projections should not "be interpreted as a prediction of an expected future, but as a projection of a possible future should recent trends continue"^[44]. Certain limitations of the demographic projections prepared by the ISQ are discussed in the publication *Perspectives démographiques du Québec et des régions, 2016-2066*^[42]. In the absence of the data necessary to apply more sophisticated methods, a univariate approach was employed to estimate the growth of the Aboriginal population. This approach has several limitations. Whereas projection models like those developed by the ISQ take many factors into account and allow for the breakdown of projections by subgroups such as age and sex,

univariate projections must be considered in isolation, since these are projections on each time series taken individually and do not take into account the interrelationships with the other series or the different variables involved. Although the series for which projections were estimated do exhibit a certain predictability, seeing that the segments of Nunavik's population under study have shown near-consistent growth over the last 20 years, our projections are based exclusively on trends observed in recent years for each of the series taken in isolation. Hence, they do not take into account other factors that could affect these trends. Moreover, though we are dealing with subgroups of the population that are interleaved one with the other, the projections we obtained are not necessarily consistent with each other. The projections were calculated for a 10-year period based on the latest data available, and thus cover the period 2016-2026.

10.4 Projections

According to the projections of the ISQ, the total population of Nunavik could increase by about 2,150 people from 2016 to 2030, an increase of about 16% (figure 10.1). The population aged 15 and over, i.e. the working-age population, would increase by about 1,870 over the same period.

Figure 10.2 compares the ISQ's projection of the total population of Nunavik to the population projected using the methodology of our analysis. We see that the growth rate projected by the ISQ is lower than that calculated on the basis of the time series of the census. It is not possible to evaluate the accuracy of the results obtained according to these two approaches. However, with an estimated growth of about 12%, the ISQ approach suggests a smaller increase in the population than what has been observed over the last ten years according to the census, namely an increase of about 22% in Nunavik's population between 2006 and 2016. The projection based on census data suggests that the population will grow by about 21% between 2016 and 2026.

If the trends observed in recent years continue, according to the projections based on census data, Nunavik's Aboriginal population would increase by about 1,740 between 2016 and 2026 (figure

Figure 10.1

Population projection by age, total population of the RCM of the Kativik Regional Government, ISQ projections, 2016-2030 (N)

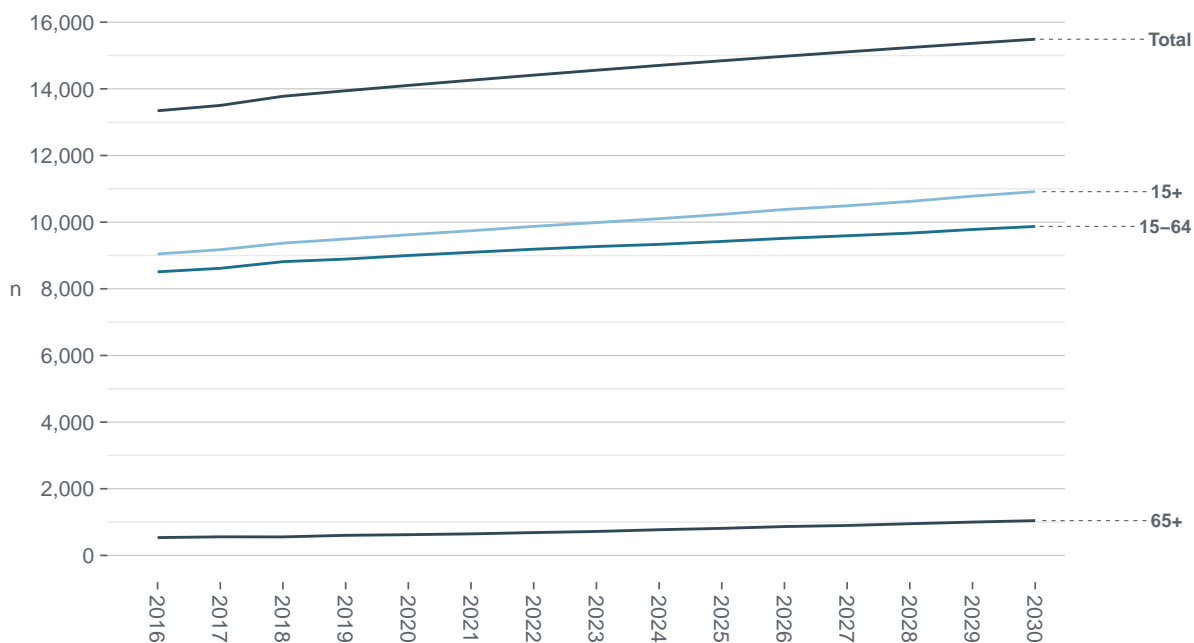


Figure 10.2

Comparison of demographic projections, total population of Nunavik, ISQ and Nunivaat projections, 2016-2026 (N)

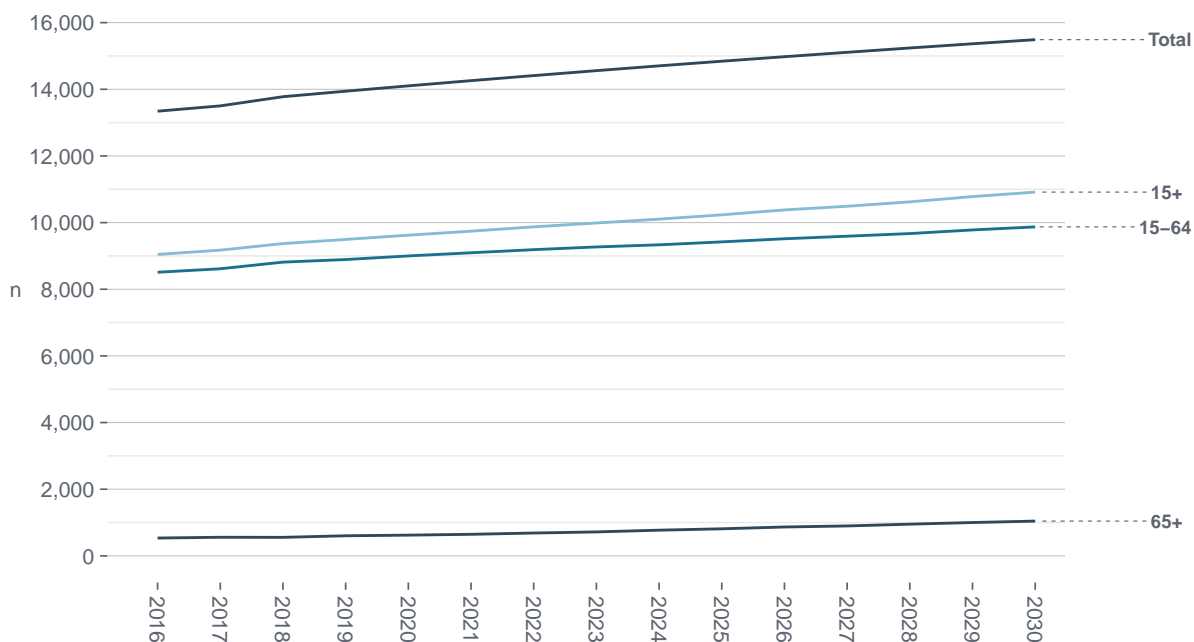
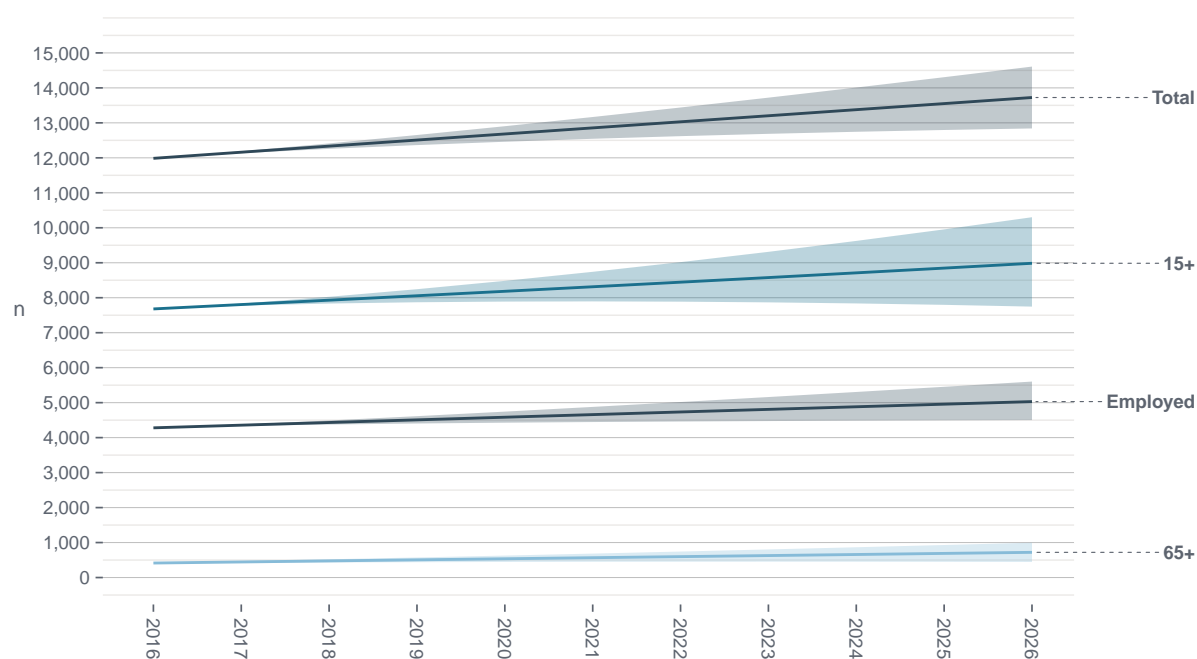


Figure 10.3

Population projection by age and employment status, Aboriginal population of Nunavik, 2016-2026
(N)

**Table 10.1**

Population projection by age, total population of the RCM of the Kativik Regional Government,
ISQ projections, 2016-2030 (N)

Year	Age group			
	Total	15+	15-64	65+
N				
2016	13,343	9,045	8,510	535
2017	13,502	9,173	8,615	558
2018	13,777	9,370	8,814	556
2019	13,942	9,495	8,892	603
2020	14,103	9,622	9,000	622
2021	14,259	9,742	9,095	647
2022	14,411	9,873	9,188	685
2023	14,559	9,988	9,269	719
2024	14,703	10,104	9,333	771
2025	14,842	10,233	9,421	812
2026	14,978	10,381	9,515	866
2027	15,110	10,490	9,592	898
2028	15,239	10,622	9,671	951
2029	15,366	10,781	9,780	1,001
2030	15,489	10,915	9,871	1,044

Table 10.2

Population projection, total and employed Aboriginal population of Nunavik, 2016-2026 (N)

Year	Group							
	Total				Employed			
	<i>N</i>	<i>CI</i>			<i>N</i>	<i>CI</i>		
2016	11,985	-	-	-	4,280	-	-	-
2017	12,161	12,133	-	12,189	4,356	4,337	-	4,376
2018	12,334	12,257	-	12,412	4,433	4,375	-	4,491
2019	12,508	12,364	-	12,652	4,508	4,404	-	4,614
2020	12,682	12,460	-	12,904	4,584	4,427	-	4,744
2021	12,856	12,544	-	13,167	4,659	4,446	-	4,879
2022	13,030	12,619	-	13,440	4,734	4,461	-	5,018
2023	13,203	12,686	-	13,721	4,808	4,474	-	5,161
2024	13,377	12,745	-	14,009	4,882	4,484	-	5,306
2025	13,551	12,796	-	14,306	4,956	4,494	-	5,454
2026	13,725	12,840	-	14,609	5,030	4,502	-	5,603

Table 10.3

Population projection by age, Aboriginal population of Nunavik, 2016-2026 (N)

Year	Group							
	15+				65+			
	<i>N</i>	<i>CI</i>			<i>N</i>	<i>CI</i>		
2016	7,680	-	-	-	415	-	-	-
2017	7,805	7,776	-	7,834	445	418	-	472
2018	7,930	7,834	-	8,027	476	430	-	522
2019	8,056	7,870	-	8,244	506	438	-	574
2020	8,184	7,890	-	8,483	537	445	-	628
2021	8,313	7,895	-	8,741	567	450	-	685
2022	8,444	7,887	-	9,018	598	452	-	743
2023	8,577	7,867	-	9,312	628	453	-	804
2024	8,711	7,837	-	9,625	659	452	-	866
2025	8,847	7,796	-	9,955	690	449	-	930
2026	8,985	7,746	-	10,302	720	445	-	995

10.3); the working-age population would increase by about 1,300; the population aged 65 and over by 305; and the employed population would increase by about 750. The margins of error represented by the bands surrounding the projections show that the uncertainty of the estimates increases sharply with time.