2. Social and economic conditions and inequalities in the circumpolar Arctic

Gérard Duhaime, Karen Everett, Sébastien Lévesque, Taoyuan Wei, Marileine Baribeau and Andrée Caron

Introduction

In the Arctic, regional economies often prioritize the development of the extractive industries. While these industries can certainly be profitable, questions remain about the benefit of such industries to nature and human development, especially considering the volatility of world markets and the fairness in distribution of natural wealth.[1] The creation of conditions favourable to human development include more than just the economy; other social and political structures also have a role to play. Therefore, an in-depth understanding of multiple indicators is required to obtain a broader understanding of the socio-economic situation across the circumpolar Arctic.[2]

Comprehensive studies, such as the Arctic Human Development Report (AHDR),[3] have sought to identify inequalities in the circumpolar Arctic, while indicators of inequality have been identified, developed, and operationalized as part of the Arctic Social Indicators (ASI) report.[4] The ECONOR reports, The Economy of the North, contribute to these important efforts to identify and understand inequality, particularly from a socio-economic perspective. This chapter builds on our previous efforts to measure specific socio-economic indicators across the circumpolar Arctic and presents the data within their larger contexts.

The Faroe Islands. Photo: Åsne Vigran

In our previous comparative study, The Economy of the North 2015, we presented an update of the comparative analysis of socio-economic conditions in the regions of the circumpolar Arctic. Our findings showed some divergence from the main pattern within the three geographic regions, North America, the Nordic countries, and the Russian Federation. However, we concluded that the most important general characteristics were the overall persistence of a major gap between the geographical regions, a modest convergence between them, and less pronounced internal inequalities in the Arctic regions of the Nordic countries than elsewhere, due to the substantial extent of public provision of health and education in the Nordic countries.

This chapter updates and extends the previous comparative study of socio-economic and social conditions across the circumpolar Arctic, by comparing the situation in 2018 and 2012. Comparing the indicators over time allows us to verify whether the socio-economic models of the three geographical groups are still relevant. The socio-economic models are shaped by different factors, including political structures, emphasis on different economic industries, and transportation systems. The updated results continue to indicate that differences between the three geographical groups are shrinking, although there are increasing internal inequalities in some regions.

Methodology

This chapter examines the demographic, health, and economic situation in the circumpolar Arctic. In order to compare with the previous ECONOR report, we revised and harmonized the indicators, we have included the Gini coefficient, and updated indicators to 2018, the most recent year for which data were available. We collected 2012 and 2018 data for the following indicators: 1) population growth, 2) female rate (proportion of women in the total population), 3) youth rate (proportion of

Box 2.1. Converting social and economic indicators to a common scale

Since the indicators are of different units, each indicator has been converted into an index on a scale of 1 to 10. The indices were calculated by min-max normalization, where 1 represents the lowest (or least desirable) observed value among the regions and 10 represents the highest (or most desirable) value.

Each index, for each indicator for each Arctic region (see Table 2.1) has been calculated in the following way, by this formula:

$$Index = 1 + \frac{(x - \min(x))(10 - 1)}{max(x) - \min(x)}$$

For example, the life expectancy in Alaska is calculated by first subtracting the lowest observed life expectancy (among all Arctic regions) from the life expectancy in Alaska, then multiplying by 9, (indicated as 10-1 in the formula to explicitly recall the range of conversion) and then dividing by the difference between the highest and lowest observed life expectancy (among all Arctic regions). Then 1 is added to this result, to obtain the index value. From Table 2.1 we see that life expectancy in Alaska is 78.8 years. The region with lowest observed life expectancy is Chukotka, with 63.6 years, and the region with highest observed life expectancy is Iceland with 82.9 years. With the calculation described, we find that the index value for life expectancy in Alaska is 1+ (78.8-63.6) * 9/ (82.9-63.6) = 8.1.

For the following indicators, the maximum and minimum values have been inverted in the formula to express that low values are beneficial: infant mortality, economic dependency, demographic dependency, and Gini coefficient. In the case of the female proportion, the maximum and minimum values have also been inverted in the formula, and the calculation was based on the difference, converted in absolute values, between the proportion of women in the region and the global average proportion of women.

The replacement rate was calculated based on a ratio between children (age 0-14) and women (age 15-54 years) as a proxy measure for the total fertility rate, which is not available for all Arctic regions. We calculated the distance of this fertility rate proxy to the minimal replacement rate used in developed countries (defined as 2.1 children per woman). We then calculated the distance between the fertility rate proxy and the replacement rate of 2.1.

A composite index for each region was also calculated based on the average of the scaled indices (Table 2.1, last column), allowing us to produce a comparative ranking of the regions (see Table 2.1 and Annex 2.1). Selected indices are also used to create the radar diagrams (Figures 2.1 to 2.8). All indices, except for tertiary education, for lack of comparable data, were used to create the composite index.

children and youth 0-14 years in the total population), 4) replacement rate (defined in Box 2.1), 5) demographic dependency (proportion of children and elders to adults), 6) life expectancy at birth, 7) infant mortality rate, 8) tertiary education attainment, 9) economic dependency ratio (proportion of non-employed persons to employed persons), 10) household (personal) disposable income per capita[5] 11) gross regional product (GRP) per capita (GRP is gross domestic product (GDP) at regional level), and 12) Gini coefficient. In addition, population data are presented. As in the previous ECONOR report, we do not include the proportion of Indigenous Peoples in the total population due to a lack of systematic data in most northern regions.

Data for the following Arctic regions are analyzed: Alaska (USA); Northwest Territories, Nunavut, and Yukon (Canada); Faroe Islands and Greenland (Denmark); Lapland, Northern Ostrobothnia, and Kainuu (Finland); Iceland; Finnmark, Nordland, and Troms (Norway); Norrbotten and Västerbotten (Sweden); and Arkhangelsk, Chukotka, Karelia, Khanty-Mansii, Komi, Magadan, Murmansk, Sakha, and Yamal-Nenets (Russian Federation). Similar to the previous study, The Economy of the North 2015, we could not include Evenk and Taimyr (Dolgan-Nenets) as their official data are included in Krasnoyarsk, which extends quite far south, and separate data could not be extracted.[6]

The data are presented in several ways, in tables, graphs, and maps. For the radar diagrams (Figures 2.1 to 2.8), the indicators were transformed to a

Leftovers, Nunavut. Photo: Mary Stapleton

Learning about Chinook Salmon in Tyonek. Photo: Davin Holen

Picking blueberries. Photo: Davin Holen

common format, presented as an index on a scale from 1 to 10, where 1 represents the least favourable condition and 10 the most favourable condition for human development[7] (see Box 2.1). Note that the radar diagrams present GRP and disposable income per capita.

The data for this study were collected from the national statistical agencies of the Arctic countries, and from other sources, including the Centre for Disease Control and Prevention (USA: life expectancy, infant mortality), Finnish Institute for Health and Welfare (Finland: infant mortality), Swedish Register of Education (Sweden: tertiary education), World Bank Development Indicators (Iceland: life expectancy), and the World Bank (global female population). Data were collected near the end of 2020, and where data for 2018 were not available, we used data from the most recent year available (see note 8).

There were some challenges to data collection at the regional level, particularly for regions with smaller populations.[8] For example, for life expectancy, the reference period is usually presented for a multiple year range rather than for single years, and we used the data that aligned best with 2012 and 2018 (see note 8). Data at the regional level are often updated on a different schedule than data at the national level and some data for 2018 have been estimated (see note 8). There are also methodological differences in the approaches of the statistical agencies, for example, in the calculation of the Gini coefficient. When available, we have presented the Gini coefficient for the equivalized household disposable income per capita (see note 8).

Considering the differences in data, efforts were made to ensure valid comparisons. In some cases, we had to make compromises, with slight differences, in concepts or data used, as for the Gini coefficient, while in other cases, as for education, we concluded that a circumpolar comparison was not possible for this update (see note 8).

These limitations notwithstanding, we were able to analyse the data and achieve a picture of the socio-economic situation in the circumpolar Arctic.

The socio-economic situation of the circumpolar Arctic in 2018

Table 2.1 provides a portrait of the socio-economic situation in the circumpolar Arctic in 2018 according to our selected indicators, with actual values for each indicator for each of the Arctic regions. Notes on definitions are included in Table 2.1, while additional information on the data are found at the end of the chapter.

The results of eight key indicators are displayed in radar diagrams (Figures 2.1 to 2.8), where more area coverage within the lines of the diagram indicates a more favourable situation for human development. The comparison of the obtained diagrams allows us to identify a recurrent pattern in each geographical region, which is called the “main pattern”. Similarly, in each geographical region, one or a few diagrams differ from the main pattern and are called “variations” (Table 2.2).

In comparison to the previous ECONOR, the following analysis does not include tertiary education, for lack of comparable data. The most current data from the Russian regions on tertiary education attainment is from the 2010 census and

Table 2.1. Selected social and economic indicators[1] and composite index[2]. Arctic regions. 2018

Regions	Population	Population growth rate 2012-2018	Female rate	Youth rate	Replacement rate	Demographic dependency	Life expectancy	Infant mortality	Tertiary education	Economic dependency	Disposable income	GRP	Gini coefficient	Composite index
	N	Per cent			Ratio		Years	Per 1 000 live births	Per cent	Ratio	USD-PPP per cap		Ratio	n
Alaska	735 139	0.1	47.8	20.9	1.3	0.49	78.8	5.9	34.3	0.6	55 735	74 454	0.432	6.15
Northwest Territories	44 956	0.5	48.6	20.3	1.4	0.39	77.0	9.6	22.1	0.7	32 810	87 799	0.328	6.11
Nunavut	38 139	1.6	48.6	32.0	1.0	0.56	71.6	24.2	11.4	1.3	23 189	74 852	0.379	5.43
Yukon	40 612	1.9	49.1	16.8	1.5	0.40	79.0	6.8	27.3	0.8	33 006	62 588	0.295	6.27
Faroe Islands	50 475	0.8	48.5	21.1	1.2	0.63	82.4	0.0	..	0.9	21 449	57 554	0.227	6.38
Lapland	178 522	-0.4	50.0	15.1	1.4	0.66	80.5	2.9	26.7	1.2	22 314	45 542	0.243	4.86
Northern Ostrobothnia	412 161	0.3	49.5	19.6	1.3	0.63	81.6	2.4	29.8	1.3	21 315	40 573	0.263	5.41
Kainuu	73 061	-1.0	49.7	14.1	1.4	0.71	80.3	4.1	24.9	1.1	22 455	38 840	0.241	4.63
Greenland	55 877	-0.3	47.2	21.0	1.3	0.41	70.8	7.3	12.3	1.1	15 543	50 901	0.354	4.56
Iceland	348 450	1.4	49.0	19.3	1.4	0.50	82.9	1.7	35.1	0.8	21 358	59 467	0.234	6.66
Finnmark	76 167	0.5	48.5	16.5	1.4	0.52	79.8	5.0	28.0	0.9	24 323	46 138	0.224	5.68
Nordland	243 335	0.3	49.3	16.5	1.4	0.57	81.1	3.0	26.8	1.0	23 536	45 241	0.217	5.66
Troms	166 499	0.8	49.1	16.8	1.4	0.52	81.7	1.8	32.9	0.8	25 375	47 623	0.222	6.18
Norrbotten	250 497	0.1	48.8	15.4	1.4	0.65	81.1	2.9	27.8	1.0	22 889	55 888	0.253	5.21
Västerbotten	270 154	0.6	49.3	16.8	1.4	0.61	82.0	2.7	23.5	1.0	21 717	46 908	0.264	5.51
Arkhangelsk	1 155 028	-0.8	53.1	17.9	1.4	0.48	72.1	4.8	2.0	1.2	15 358	28 630	0.382	3.66
Chukotka	49 348	-0.5	49.2	21.6	1.3	0.36	63.6	12.7	0.5	0.7	34 941	63 919	0.405	5.15
Karelia	622 484	-0.5	54.4	17.3	1.4	0.48	70.6	5.6	2.2	1.2	12 541	18 157	0.341	3.39
Khanty-Mansii	1 655 074	1.0	51.3	22.0	1.4	0.39	74.3	2.9	1.8	0.9	20 872	108 468	0.398	5.77
Komi	840 873	-0.9	52.8	19.2	1.4	0.44	71.1	4.5	2.3	1.1	14 014	31 958	0.382	3.91
Magadan	144 091	-1.2	51.6	17.8	1.5	0.39	69.6	3.5	2.6	0.7	25 466	47 826	0.388	4.60
Murmansk	753 557	-0.7	52.0	17.6	1.4	0.41	71.7	5.6	1.3	0.9	17 102	25 848	0.356	4.32
Sakha	964 330	0.1	51.5	23.5	1.3	0.46	72.7	5.0	3.3	1.1	18 819	45 397	0.405	4.88
Yamal-Nenets	538 547	0.1	50.4	22.8	1.4	0.35	74.1	5.6	0.2	0.7	34 144	231 116	0.435	6.40

[1] Population growth: average annual per cent; female rate: per cent of women in total population (as compared to global average at 49.58 in 2018, from World Bank); replacement rate: distance of the ratio of children (0-14 years) and women (15-54 years) from the replacement rate of 2.1; youth rate: per cent of 0-14 years in the total population; demographic dependency: (0-14) + (65 +) / (15-64); infant mortality: per 1 000 live births; tertiary education: per cent of tertiary level graduates in total population; economic dependency: (non-employed/employed person in total population); disposable income: personal disposable income in 2018 USD-PPP; GRP: gross regional product in 2018 USD-PPP.

[2] The composite index calculation is based on all indicators with the exception of the total population and tertiary education. See Box 2.1 for further explanation.

Table 2.2. Arctic regions distribution by socio-economic model. 2018

Model	Main pattern	Variation
North America Model Figures 2.1 and 2.5	Alaska Northwest Territories Yukon	Nunavut
Nordic Country Model Figures 2.2, 2.3, and 2.6	Faroe Islands Lapland Northern Ostrobothnia Kainuu Iceland Finnmark Nordland Troms Norrbotten Västerbotten	Greenland
Russian Federation Model Figures 2.4, 2.7, and 2.8	Arkhangelsk Karelia Komi Magadan Murmansk	Chukotka Khanty-Mansii Sakha Yamal-Nenets

was presented in the previous ECONOR report. In this updated study, education data for Russia encompass the percentage "of students studying under the bachelor's, specialist's and master's degree programs",[9] while data for the North American and Nordic regions reflect the percentage of the population with a tertiary degree, thus making it impossible to compare data for the education indicator across all Arctic regions.

Our analysis demonstrates continued differences between the three geographical regions, North America, the Nordic countries, and the Russian Federation (Figures 2.1 to 2.8). The results also find that some regions continue to vary from the main pattern within a given socio-economic model (Table 2.2).

Longyearbyen, Svalbard, the world's northernmost city. Photo: Crestock

However, when comparing disposable income per capita, and above all, GRP per capita, across the Arctic regions, the circumpolar comparison is heavily influenced by the high resource revenues of some of the Arctic Russian regions. As made visible by comparison of GRP per capita across regions in the following diagrams, the level of GRP per capita for other regions are dwarfed especially by the high GRP per capita of Yamal-Nenets due to the high resource revenues of this region.

Overall, the North American regions demonstrate favourable conditions for human development. They have the highest disposable income per capita, the highest population growth, and the largest share of youths. The indicators for female rate, life expectancy, and Gini coefficient are average, while infant mortality is the highest in the circumpolar Arctic (Figure 2.1). Although the North American regions have a high level of GRP per capita, compared to most other Arctic regions, in relative terms their GRP per capita is dwarfed by the high level of GRP per capita of Yamal-Nenets, as mentioned above.

The Nordic regions also have favourable conditions for human development, although with a different pattern than in North America. In particular, the Nordic countries have the lowest Gini coefficient, meaning they have the lowest income inequality within their populations. Moreover, the female rate is the closest to the global average, they have the longest life expectancy, and the lowest infant mortality rates. However, population growth is slower, and disposable income per capita and GRP per capita are much lower than in the North American regions. The Nordic regions also have the lowest share of youths among the three geographical regions (Figures 2.2 and 2.3).

The situation in the Arctic Russian regions is in contrast to what is observed in the North American and Nordic regions. The main pattern shows the youth rate is higher than in the Nordic countries but lower than in North America. The infant mortality rate is lower than in North America, although not as low as in the Nordic regions. Moreover, the population in the Russian Arctic has generally been in decline (Annex 2.1). The female rate is the furthest away from the global average, and all regions but one have a female rate of 50 per cent or above (Table 2.1). Life expectancy, disposable income per capita, and GRP per capita are the lowest, and the Gini coefficient is the highest (Figure 2.4). Some of the Russian regions have the least favourable conditions for human development for several indicators.

As previously mentioned, the regional geographical groups are not homogenous and they each have variations from the main patterns. In North America, Nunavut has a different pattern than the other

Figure 2.1. North America model, main pattern. 2018

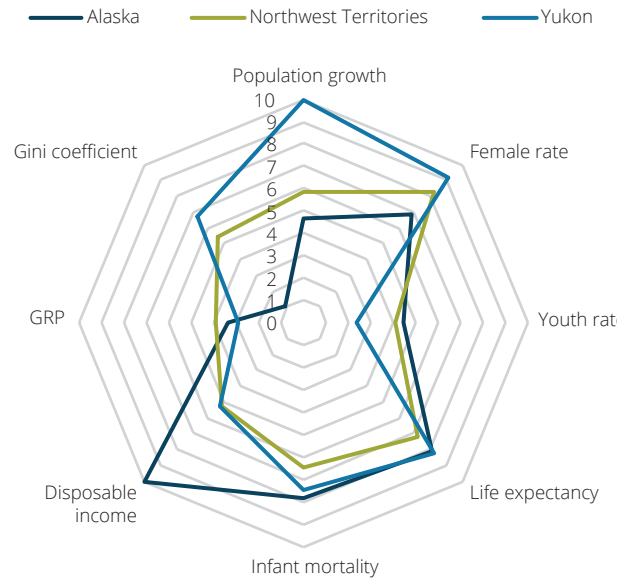


Figure 2.2. Nordic model, main pattern. 2018

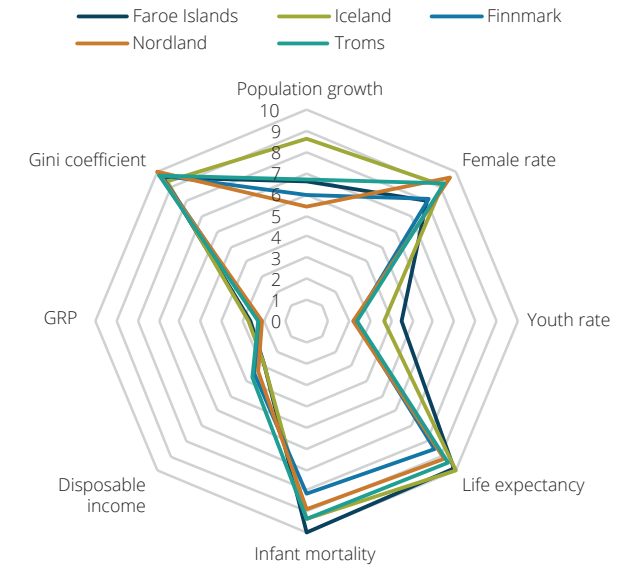


Figure 2.3. Nordic model, main pattern. 2018 (cont.)

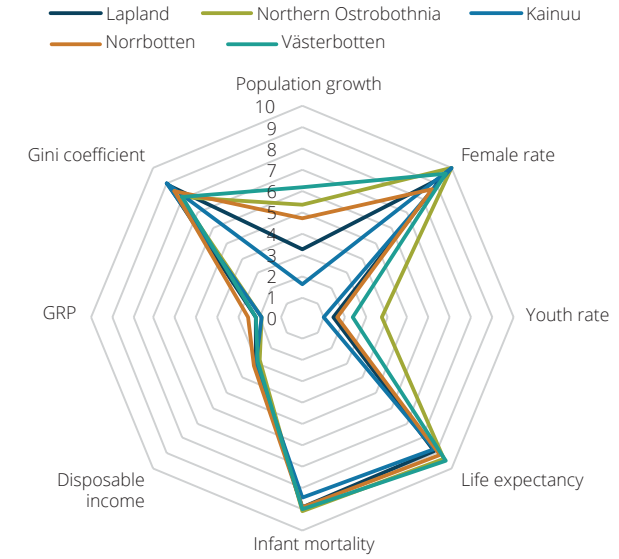


Figure 2.4. Russian Federation model, main pattern. 2018

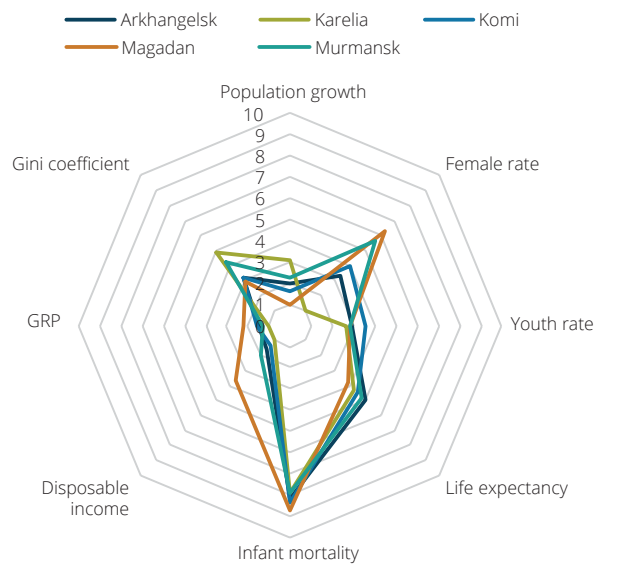


Figure 2.5. North America model, variation. 2018

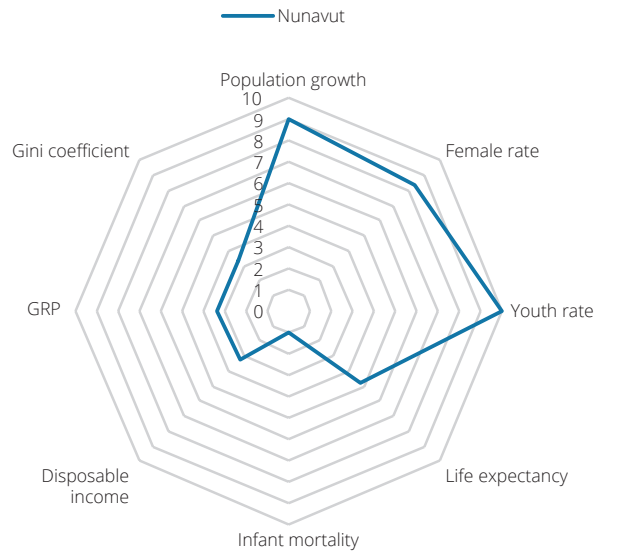


Figure 2.6. Nordic model, variation. 2018

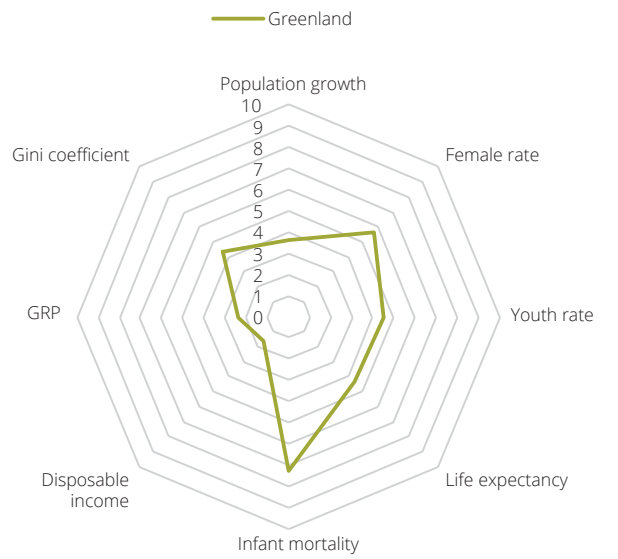


Figure 2.7. Russian Federation model, variation. 2018

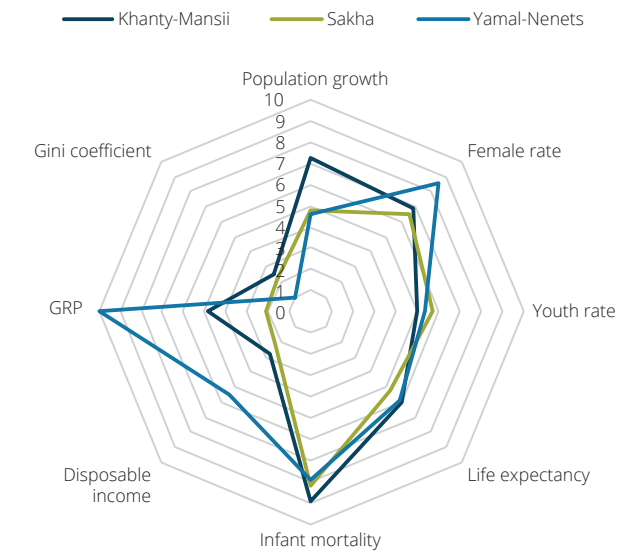
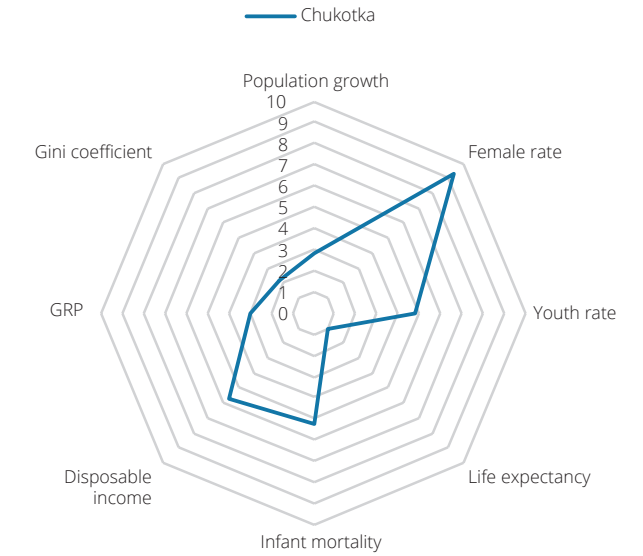


Figure 2.8. Russian Federation model, variation. 2018 (cont.)



regions. For example, life expectancy is lower, as is the disposable income per capita. The region also has the largest share of youths, but also a substantially higher rate of infant mortality (Figure 2.5).

Greenland has a similar GRP per capita in relation to the other Nordic regions and a relatively high youth rate, but differs for many indicators. In particular, the region has lower values than their Nordic neighbours for female rate, life expectancy, and disposable income per capita. Moreover, Greenland also has a high infant mortality rate, and a high level of economic inequality as indicated by the Gini coefficient (Figure 2.6).

There are two variation models of the socio-economic situation in the Russian Federation. The first variation includes Khanty-Mansii, Sakha, and Yamal-Nenets. In relation to the main Russian model, these regions are the only regions to experience population growth, and they have the highest youth rates. Khanty-Mansii and Yamal-Nenets also have the highest GRP per capita in Arctic Russia and the circumpolar Arctic, while Yamal-Nenets has the second highest disposable income per capita in Arctic Russia (Figure 2.7).

The second variation model is for Chukotka. The region falls just behind the other variation model with regards to youth rate. It also has the highest disposable income per capita in Arctic Russia, and the third highest GRP per capita behind Khanty-Mansii and Yamal-Nenets. Despite these relatively positive economic indicators, it also has the lowest life expectancy and highest infant mortality rate (Figure 2.8).

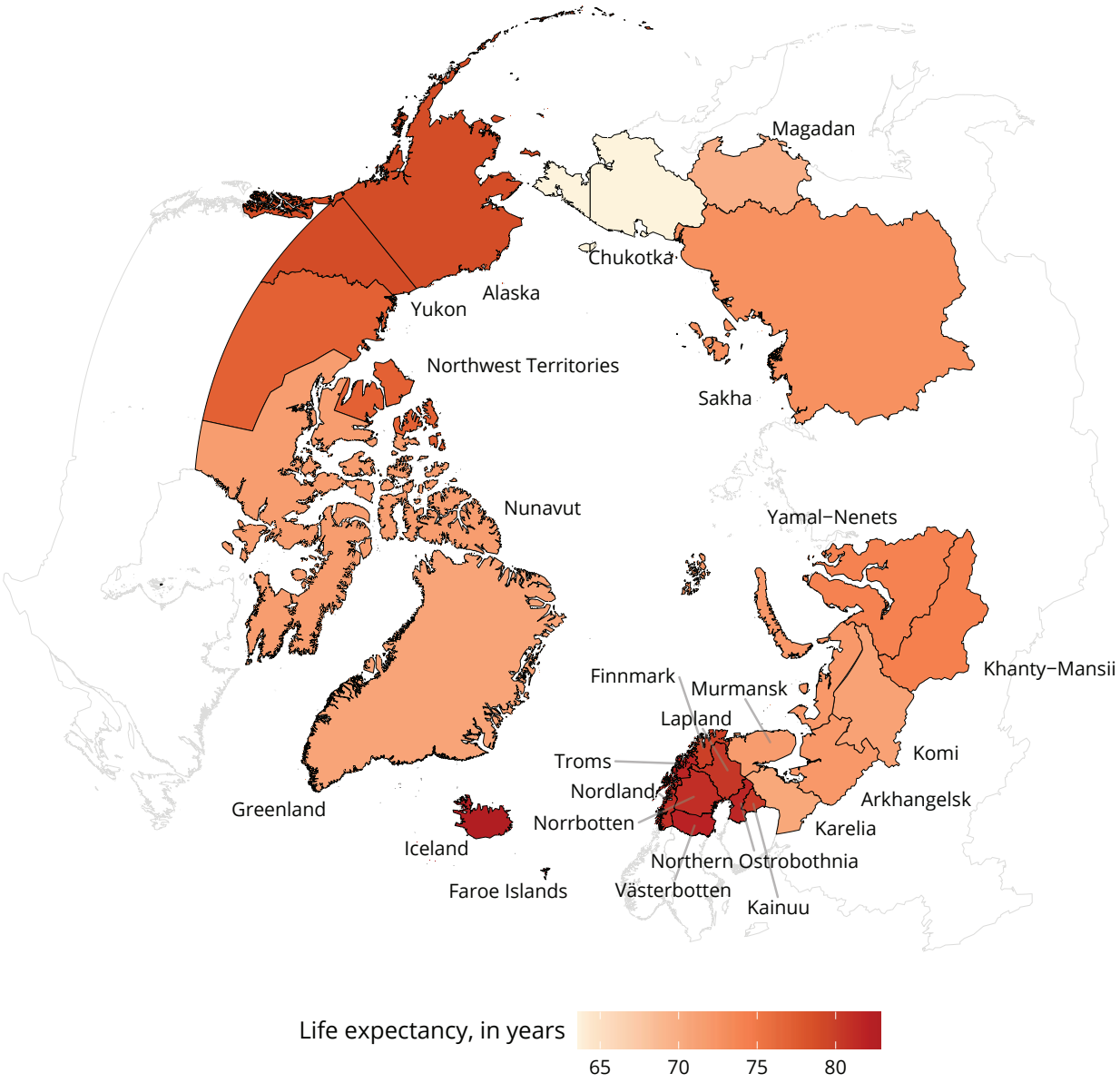
The analysis of key socio-economic indicators for 2018 demonstrates consistency in the existence of regional models for North America, the Nordic countries, and the Russian Federation. At the same time, the analysis also shows that variations are still found within each model, further confirming that inequalities exist both between and within regions.

Maps are used to visualize the differences between the regions for three indicators: life expectancy, infant mortality, and Gini coefficient (Figures 2.9 to 2.11). Figure 2.9 shows that the highest life expectancy is found in the Nordic regions and North America. Figure 2.10 shows that the highest infant mortality is found in Nunavut. Figure 2.11 shows that inequality, measured by the Gini coefficient, is highest in Yamal-Nenets and Alaska, and lowest in the Nordic Arctic regions.

Circumpolar Changes

Finally, we provide a synthesis of the circumpolar changes from 2012 to 2018. The change between 2012 and 2018 was calculated for each of the indicators (see Annex 2.1), and selected indicators are illustrated in a series of bar graphs (Figures 2.12 to 2.19), presenting the changes observed from 2012 to 2018 (2012 being the year of observations in the previous ECONOR report). The selected key indicators are: population growth,

Figure 2.9. Map of circumpolar Arctic life expectancy, in years. 2018[1]



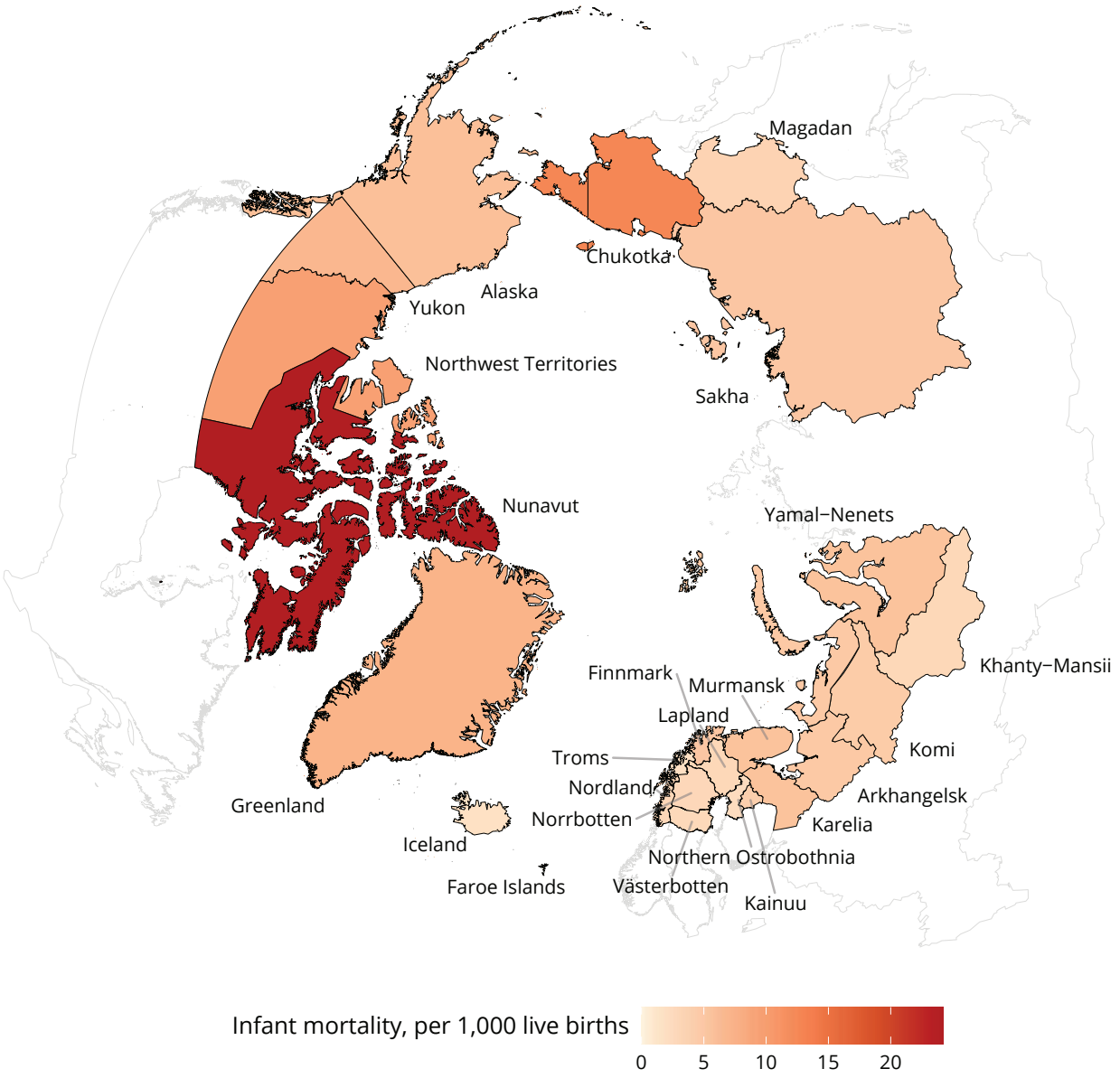
[1] Data for life expectancy in different regions are the most recent available data, see notes at the end of the chapter.

youth rate, life expectancy, infant mortality, female rate, disposable income per capita, GRP per capita, and the Gini coefficient. Compared to the previous ECONOR report, we now include infant mortality and the Gini coefficient, while we are not able to include tertiary education, for lack of data.

On average, the population growth in the Arctic in 2018 compared to 2012 seems very low. In reality, this result masks contrasting changes between the geographical groups: while there is a growth of 13 849 inhabitants in North America and 56 860 in the Nordic countries, this increase is almost completely cancelled out in the total for the Arctic by the population decrease in the Russian regions by 66 795 inhabitants. The Canadian regions of Yukon and Nunavut show the highest relative growth, followed by Iceland in the Nordic countries. Of the three regions in Russia with population growth, Khanty-Mansii is the only region where growth is substantial. However, population decline is seen in six of the nine Russian regions, as well as in Lapland, Kainuu, and Greenland in the Nordic countries. North America is the only group of regions that did not experience a decline in 2018 as compared to 2012 (Figure 2.12).

The change in the youth rate also presents contrasts that tend to follow the contours of the geographical regions. Notably, there is a larger growth in the youth rate in the Russian North than in other regions. The only regions outside Russia

Figure 2.10. Map of circumpolar Arctic infant mortality, per 1 000 live births. 2018[1]



[1] Data for infant mortality in different regions are the most recent available data, see notes at the end of the chapter.

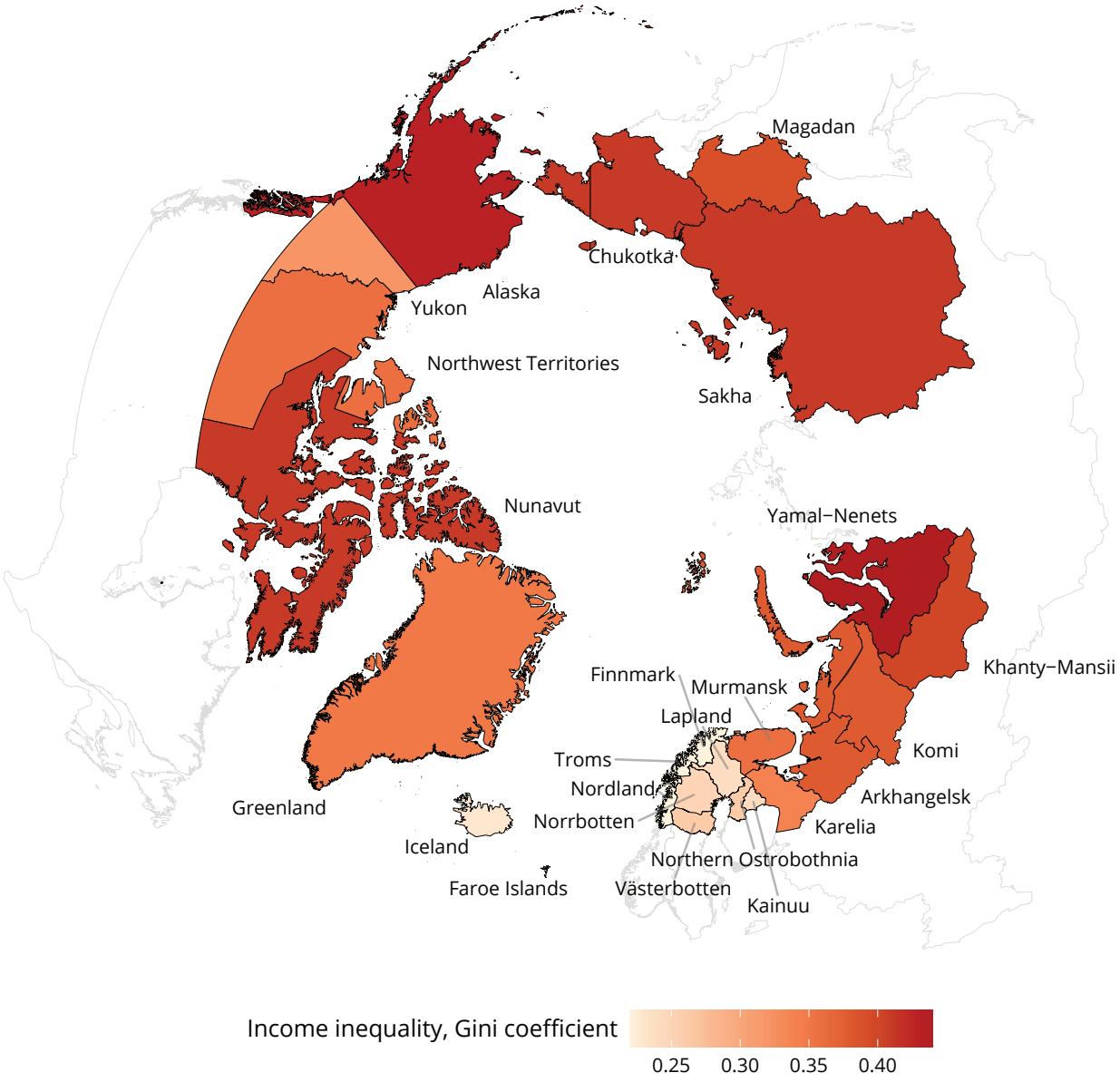
where there have been slight increases in the youth rate are in northern Sweden and in Nunavut (Figure 2.13).

With the exception of Murmansk, all Russian regions show an increase in life expectancy of more than two years (see notes at the end of the chapter), while the variations in the rest of the Arctic are generally quite small. Nevertheless, an increase in life expectancy of about one, to one and a half years is observed for the regions of Greenland, the Faroe Islands, Kainuu, and Troms (Figure 2.14).

The Russian regions experienced a decline in infant mortality, while the North American regions experienced a small increase. In the Nordic countries, generally small variations are recorded, except for Faroe Islands (Figure 2.15). It is important to note, however, that the infant mortality rate for the Faroe Islands can substantially vary from year to year, and is sometimes zero. This was the case in 2018 (see Table 2.1). Changes to the female rate are relatively small across the circumpolar Arctic. The largest decrease is in Iceland while the largest increase is in Yamal-Nenets (Figure 2.16).

In all Nordic regions, both economic indicators, GRP and disposable income, improved in 2018 compared to 2012. The range of growth between regions, however, is considerable. The Faroe Islands and Iceland, for example, show a

Figure 2.11. Map of circumpolar Arctic income inequality measured by the Gini coefficient. 2018[1]



[1] Data for the Gini coefficient is based on equivalized household disposable income in different regions, where possible, and the most recent data available are used. See notes at the end of the chapter.

substantial increase in both disposable income per capita and GRP per capita, while the northern regions of Sweden show a smaller increase in gross regional product per capita than in disposable income per capita. In North America, the observed variations for both these economic indicators are generally less substantial than in other regions, with the exception of Nunavut. Nunavut saw its GRP per capita grow substantially in 2018 compared to 2012, and also experienced a decline in disposable income per capita.

The Russian regions present a more contrasted picture. Some regions saw both GRP per capita and disposable income per capita increase, including Chukotka, Magadan and Yamal-Nenets. In contrast, Komi and Khanty-Mansii have experienced a decline in GRP per capita and have the largest declines in disposable income per capita (Figures 2.17 and 2.18).

Variations in income inequality are rather small, but they show some generally homogeneous trends across the geographical regions. Inequality has decreased slightly in most of the Russian regions, while it has increased slightly in some of the Nordic regions. Nevertheless, these variations remain small, and are marginal in several regions, particularly in North America (Figure 2.19).

Figure 2.12. Population by Arctic regions, relative changes 2012-2018. Per cent

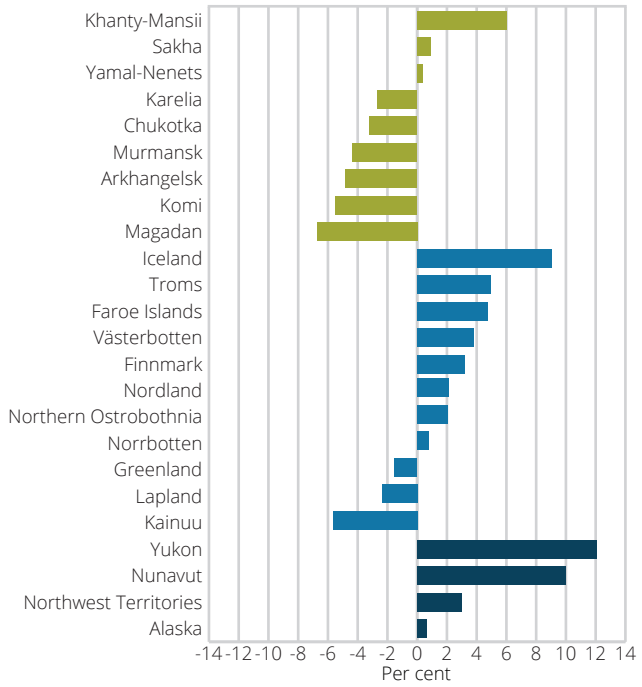


Figure 2.13. Youth rate by Arctic regions, absolute changes 2012-2018. Percentage point

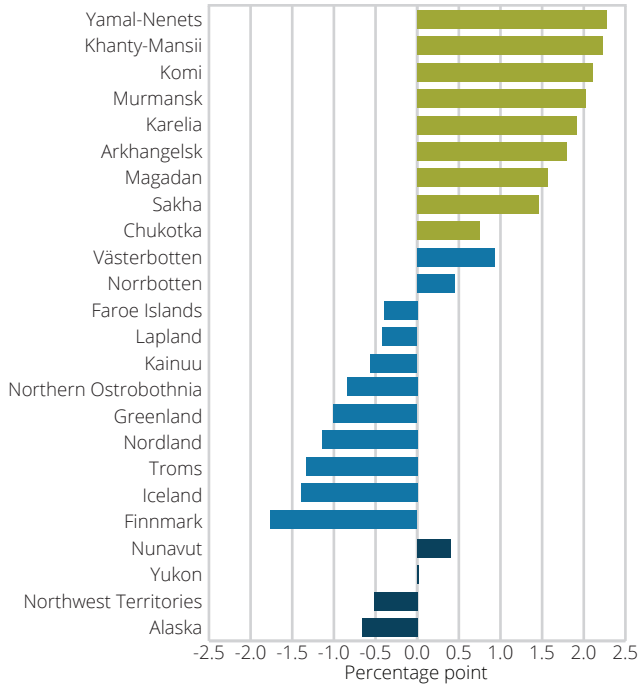


Figure 2.14. Life expectancy by Arctic regions, absolute changes 2012-2018. Years

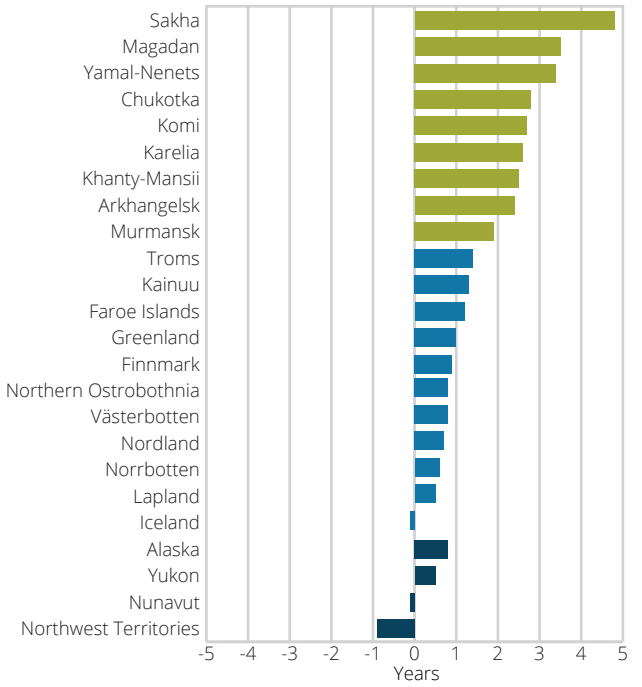
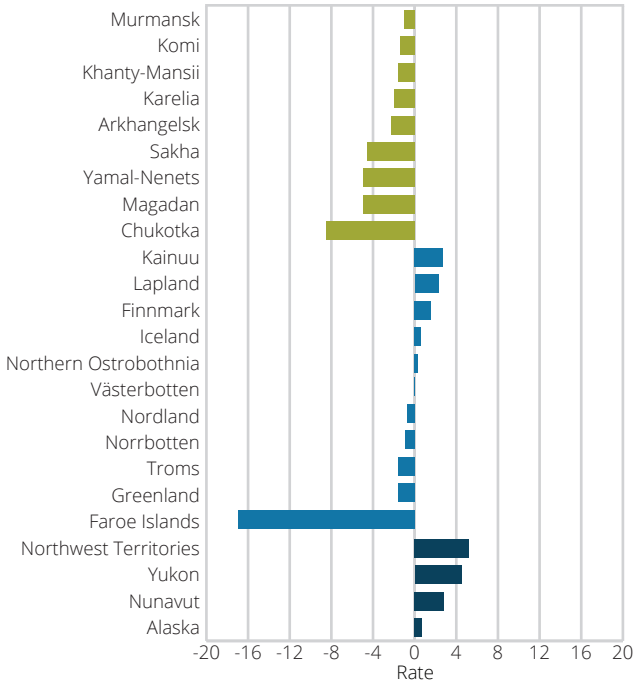


Figure 2.15. Infant mortality by Arctic regions, absolute changes 2012-2018. Per 1 000 live births



Main findings

The findings comparing the situation in 2018 with 2012 raise questions about what is retained in 2018 from the situation in 2012, and what conclusions we can draw from the changes. Our study finds that the socio-economic situations in the three geographical regions follow different patterns of change. These similarities and differences can be explained by factors related to political systems and regional economic trends.

Similar to the previous study, Russia's Arctic regions continued to see improvement; in addition to a growing GRP per capita, these regions overall saw a substantial increase in the youth rate, an

Figure 2.16. Female rate by Arctic regions, absolute changes 2012-2018. Percentage point

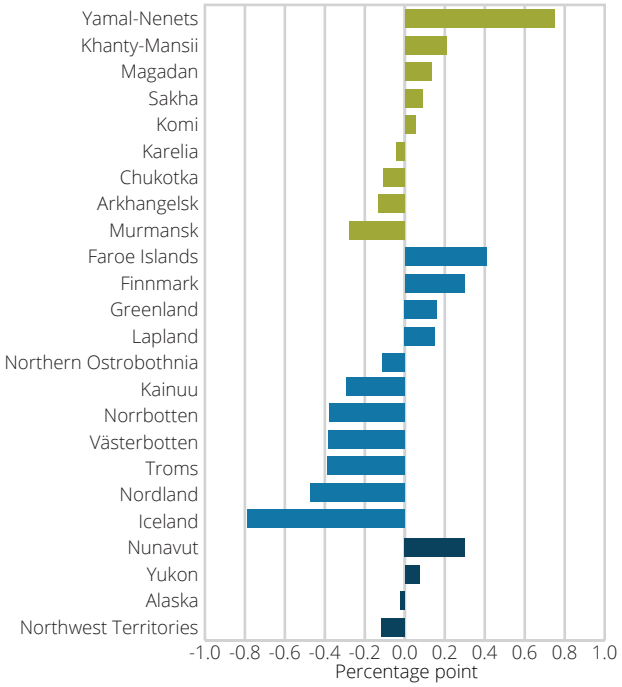


Figure 2.17. Disposable income in 2018 USD-PPP per capita by Arctic regions, relative changes 2012-2018. Per cent

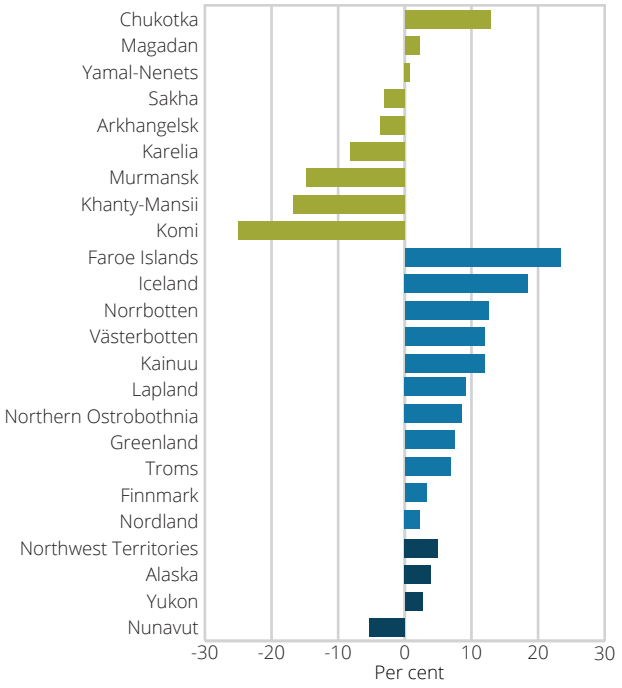


Figure 2.18. Gross regional product in 2018 USD-PPP per capita by Arctic regions, relative changes 2012-2018. Per cent

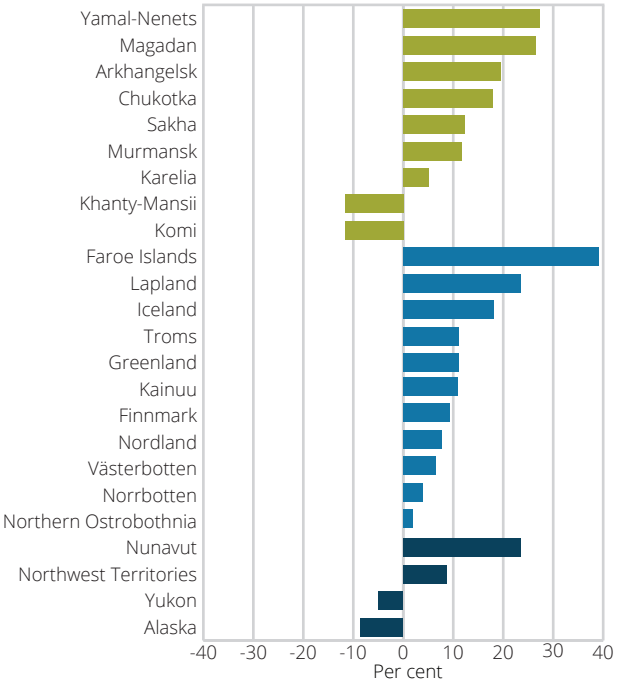
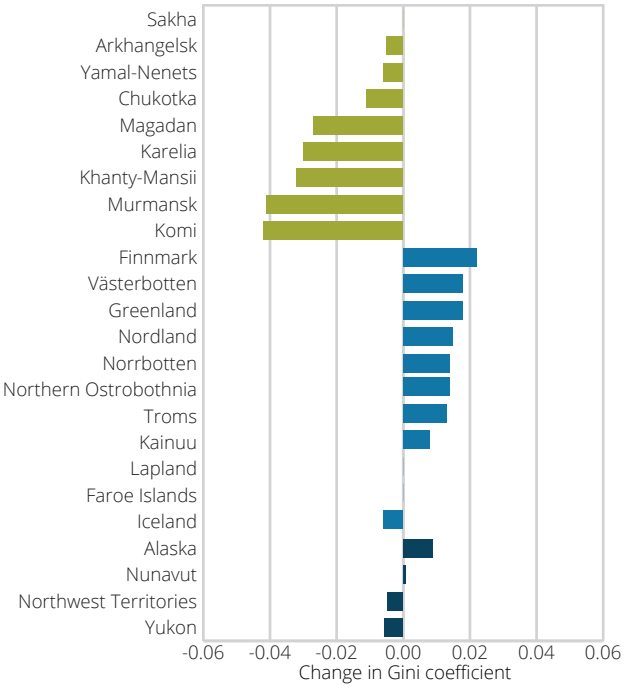


Figure 2.19. Income inequality measured by Gini coefficient by Arctic regions, absolute changes 2012-2018



increase in life expectancy, and a reduction of income inequality. The socio-economic situation of the Nordic regions also improved, with the exception of the Gini coefficient as there was a slight increase in income inequality, except for Iceland. Overall, the North American Arctic regions also experienced improvements in life expectancy, disposable income per capita, and GRP per capita.

The following examines each of the three geographical groups.

North America

When looking at the changes observed in 2018 compared to 2012, we can see improvement, with the exception of the youth rate and infant mortality. This, however, does not mean that

Tyonek Fish Camp – A fish camp in Tyonek on the shore of West Cook Inlet, Southcentral Alaska in June 2004. Photo: Davin Holen

economic growth is substantial. For example, increases in disposable income per capita and GRP per capita are rather modest when compared to the Nordic regions, and in some regions, these indicators are in decline, such as the disposable income per capita in Nunavut and the GRP per capita in Alaska and Yukon. Differences in change also exist in other indicators, such as the Gini coefficient where the changes are too small to lead to a clear conclusion on changes to income inequality.

The differences between the regions have an impact on the main pattern in 2018 for Alaska, the Northwest Territories, and Yukon. The area covered by these regions on the radar diagram is different, particularly for the disposable income per capita in Alaska and the population growth in Yukon. Yet, despite these differences, these three regions remain more similar together than when they are compared with Nunavut, which varies substantially with regards to disposable income, infant mortality, youth rate, life expectancy, and Gini coefficient. This, in part, may be explained by higher costs of living, and that Nunavut does not benefit substantially from the mining industry, despite the Nunavut Agreement.[10] This could also be explained more broadly by the general socio-economic condition of the Inuit in Nunavut. Even though they form the majority of the population in Nunavut, they are disadvantaged compared to non-aboriginals in the territory, and compared to Canadian standards, in terms of health, education and economic conditions.[11]

Certain factors contribute to both the similarities and differences within the North American North. First, the federal political systems in the United States and Canada, and the transfer of responsibilities to territorial governments (devolution) in the Canadian territories, provide state and territorial governments with an increased ability to make decisions,[12] in comparison to regions in other parts of the circumpolar Arctic with centralized government structure.

Second, the regional primary economic activities are dominated by the extractive resource sector, public administration and defence.[13] There are, however, some consequences to reliance on

Box 2.2 Nunavik and other regions with undocumented socio-economic conditions

Some Arctic regions are not explicitly included in this circumpolar comparison because there is not a sufficient statistical data set to be able to describe their socio-economic conditions in a meaningful way. There are several reasons that explain these situations. First, some regions are not systematically covered by national statistical agencies because of their status. In Canada, this is the case for Nunavik, Nunatsiavut, and the Inuvialuit region, as they are Inuit regions that are administratively attached to provinces. In Alaska, this is the case for all sub-state regions such as boroughs. Second, regions that were previously treated as self-governing can no longer be so treated due to administrative changes, with their inclusion in new, larger administrative regions. In Russia, this is the case of the Evenkiyskiy Autonomous Okrug, the Taimyr Peninsula inhabited by the Dolgan-Nenets, which are now included in the Krasnoyarsk region, and the Koryak region now included in the Kamchatka region.

Data on these regions exist, but their creation, extraction and analysis are generally the responsibility of initiatives outside national statistical agencies. For example, in Nunavik, the Kativik Regional Government has set up an autonomous statistics program. The program is called Nunivaat, which in Inuktitut means "our harvest," a metaphor by which statistics are likened to wild berries harvested by hand.[1] Nunivaat maintains an open-access portal with all available socio-economic statistics. Moreover, it conducts studies to fill in the gaps. For example, several studies have shown the disparity in consumer prices and have led to the implementation of a permanent cost-of-living reduction program;[2] others follow the evolution of the regional economy over the long term.[3] There are other similar initiatives in other regions.[4] To integrate these realities into the circumpolar comparison, an inventory and analysis of the content produced could be a valuable addition to an upcoming report on the Economy of the North.

[1] www.nunivaat.org

[2] Robitaille, J., E. Guénard, S. Lévesque and G. Duhaime, The Cost of Living in Nunavik in 2016. Research Report Revised and Expanded Version. 2018. Chaire de recherche du Canada sur la condition autochtone compare: Québec. 22 pages + 10 app.

[3] Robichaud, V. and G. Duhaime, Nunavik Economic Portrait 2012. Final Report on the Construction of a Social Accounting Matrix for Nunavik. Research Report. 2015.

[4] For instance : http://www.north-slope.org/your-government/nsb-2015-economic-profile-census-report; http://www.north-slope.org/your-government/comprehensive-plan; Petrov, A., Inuvialuit Settlement Region Baseline Social Indicators: A Pilot Study by ReSDA. 2014. Lakehead University & Yukon Research Centre. p. 41. http://yukonresearch.yukoncollege.yk.ca/resda/projects/research-projects/theme-2-sustainable-communities/inuvialuit-indicators-project/

certain sectors, such as public administration. According to political scientist Heather Exner-Pirot, these jobs have "driven up the cost of wages, which has inflated the cost of all other goods, resulting in an extremely high cost of living"[14] as in the case of Northern Canada.

Nordic countries

The changes observed in 2018, when compared to 2012, show an overall improvement, with the exception of youth rate and Gini coefficient. The most substantial growth occurred for the disposable income per capita, while modest improvements are observed for life expectancy and GRP per capita. Certain indicators, such as population growth and infant mortality, demonstrate improvement for some regions and a decline in others.

Nevertheless, the overall portrait of the Nordic regions continues to remain similar, as demonstrated in the main patterns for 2018. There is considerable similarity in life expectancy, disposable income per capita, GRP per capita, Gini coefficient, and to a lesser extent infant mortality.

The extent to which conditions are similar in the main pattern highlights the differences found in

Box 2.3. Wealth of the Arctic Group of Experts (WAGE)

The WAGE Circumpolar Partnership is supported by the Government of Canada's Department of Crown-Indigenous Relations and Northern Affairs, which financially supports the development and pilot phase of its work.

Despite its size and vitality, the Arctic economy is not spared by inequalities. This is suggested by evidence from recent work that identifies income inequalities between Indigenous and non-Indigenous Peoples;[1] between women and men;[2] between rural and urban areas;[3] between regions with different industrial structures and those with different levels of economic activity;[4] between regions with different levels of health, education and training.[5] While recent knowledge has provided a glimpse of the phenomenon, its systematic understanding is still only at an exploratory stage, despite the importance that inequalities have taken on as an object of social science and as an issue for political decision-making.

The WAGE Circumpolar Partnership (Wealth of the Arctic Group of Experts) focuses on the economic and social inequalities in the Arctic and circumpolar North. It intends to respond to calls at the Arctic Council for states to address inequalities particularly affecting Indigenous Peoples and to initiate a fundamental transformation in the distribution of wealth produced in the Arctic. It echoes the Government of Canada's Arctic and Northern Policy Framework, which identifies addressing inequalities as a priority for action and research and international collaboration as a means to inform public policy decisions.

WAGE has its origins in the ECONOR network, with which it is associated. It brings together more than 35 members from all Arctic countries; from the policy and practice community, including representatives of Indigenous organizations, NPOs and governments; and from the research community, universities, research centers, and statistical agencies. The WAGE Circumpolar Partnership is supported by the Government of Canada, which financially supports the development and pilot phase of its work. It is directed by Université Laval in Canada.

[1] Duhaime, G. and R. Édouard, Monetary poverty in Inuit Nunangat. Arctic. 2015. 68(2):223-32.; Lévesque, S. and G. Duhaime, Inequality and social processes in Inuit Nunangat. The Polar Journal. 2016. 6(1): 69-86.

[2] Oddsdóttir, E. E., A. M. Sigurðsson and S. Svandal, Conference Report Gender Equality in the Arctic: Current Realities, Future Challenges. 2015. Iceland Ministry for Foreign Affairs: Reykjavik.

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[4] Nordic Council of Ministers, Arctic Social Indicators: ASI II: Implementation. 2015. Nordic Council of Ministers: Copenhagen.

[5] Rautio, A., B. Poppel and K. Young, Human health and well-being. in Arctic Human Development Report: Regional Processes and Global Linkages, J.N. Larsen and G. Fondahl, Editors. 2014. Nordic Council of Ministers: Copenhagen. pp. 299-348.; Hirshberg, D. and A. N. Petrov, Education and human capital, in Arctic Human Development Report: Regional Processes and Global Linkages, J.N. Larsen and G. Fondahl, Editors. 2014. Nordic Council of Ministers: Copenhagen. pp. 349-99.

Greenland, which takes a very different shape in the radar diagrams. In particular, the youth rate and GRP per capita are higher, while the outcomes of remaining indicators are behind many of the other regions. Statistics Greenland points out that "income inequality in Greenland is higher than the Nordic average".[15] As well, Greenland is similar to Nunavut in that it also experiences disadvantaged health outcomes.[16]

In contrast to North America, the government structure in the Nordic countries is generally centralized at the federal level,[17] while municipalities have "the right to decide what tasks they want to manage to strengthen the welfare of their residents", although the extent of federal control and municipal authority varies from one country to another.[18] Regardless of these differences, the Nordic Welfare Model ensures equitable access to social and public services, and is likely the main contributor to the similar situation across the region. However, there has been a general shift from preventative to reactive measures,[19] thus potentially altering the outcomes for individuals. Research has shown that household income inequality is increasing across the Nordic regions,[20] and this is demonstrated in our study as the Gini coefficient has increased in all regions but Iceland.

Another consideration that differentiates the Nordic regions from North America is the extent of the transportation infrastructure system. In particular, Iceland, Norway, Sweden, and Finland have a relatively comprehensive road network, connecting most of the communities throughout the region, while many but not all communities in Alaska, Yukon, and the Northwest Territories are connected by road. In contrast, intercommunity road networks in Nunavut and Greenland are non-existent.[21]

Russian Federation

In the regions forming the main socio-economic pattern of the Arctic regions of the Russian Federation, the improvements of social conditions that are documented are in line with the observations

made when comparing the data for 2006 and 2012 in the previous ECONOR reports. The decrease in infant mortality and the increase in life expectancy may be associated with the relative decrease in income inequality, observed earlier in the Arctic.[22] These changes may be associated with improved employment conditions and quality of life in the High North regions.[23] Above all, they may be linked to national policies, with a major objective of recent Russian policy to re-establish basic social guarantees, particularly in the field of health, after the destabilization that followed the end of the Soviet regime.[24]

As far as economic indicators are concerned, two main characteristics emerged. While GRP per capita has increased almost everywhere, personal disposable income per capita has decreased in most of the regions. The growth of the GRP per capita would generally be explained by an increase in petroleum production,[25] as well as minerals (see Chapter 4). There is also growth in construction (see Chapter 8) and other production, to some extent linked to an increase in local production to counter the effects of the American and European sanctions adopted in 2014.[26] The observed decline in personal disposable income (adjusted in terms of purchasing power) may also reflect the weakening of purchasing power resulting from the same sanctions, as imported goods became more expensive.[27]

In Russia, the variations of socio-economic patterns identify very different situations. The increase in oil and gas production has led to different results for the regional economies: in Yamal-Nenets, the huge growth in production led to a corresponding increase in GRP per capita; but in Khanty-Mansii, the reduction in oil prices between 2013 and 2017, the weakening of the ruble, and the increase in population resulted in a decrease in GRP per capita, when converted to USD-PPP[28]. In these two regions, unlike almost all the others, the population has grown and the cities have continued to develop.[29] In Chukotka, the highest disposable income per capita in Arctic Russia, and second highest in the circumpolar Arctic, have been made possible by large extractive industries.

The socio-economic conditions in the three geographical groups are shaped by different factors, such as political structures, emphasis on certain economic industries, and transportation systems, for example. In line with the results presented in previous ECONOR reports, we continue to see that differences between the three geographical groups are shrinking, although there are increasing internal inequalities in some regions.

Summary

Our capacity to understand the socio-economic situation in the circumpolar Arctic has been limited by data availability. Some statistics that were available for the previous ECONOR report were not available for the current study. This was the case with the frequency at which the data is updated, e.g. when censuses are only completed every 10 years. Moreover, some statistics are not available, as is the situation when knowledge about the demographic situation on Indigenous Peoples is limited. There are challenges in obtaining population data for Indigenous Peoples,[30] while regional statistics are provided for the entire population. Finally, there are conceptual differences between definitions used by the different statistical agencies.

Comparing 2012 and 2018, the statistical challenges are no less today. Changes have occurred in some regional boundaries, resulting in loss in statistical coverage. It remains difficult to infer significant trends from small and very large changes, especially in regions where population size is small. It is difficult to elucidate local situations in the context of a broad comparison. For most regions, it remains impossible to obtain statistical information that is sufficiently recent and systematic to adequately describe the situation of Indigenous Peoples.

In addition to these challenges, there are also knowledge gaps in factors that have a direct impact on the wellbeing of northerners. For example, what is the real purchasing power across and within regions, and what is the basket of public services that are offered for free to residents? Moreover, not all statistical agencies provide data on the distribution of wealth within regions, making it more difficult to have a deeper understanding of income inequality.

Despite the statistical challenges, our analysis confirms three dominant features of the socio-economic portrait of the circumpolar Arctic. First,

a major gap continues to exist between the three geographical regions. Second, a modest convergence between them can be seen when we consider the diminishing income inequalities and the increasing life expectancy in Russia. Finally, the internal differences within the major geographical groups, that continue to have main and variation patterns of socio-economic conditions, have not changed since an overall picture was first presented in The Economy of the North 2008.

There are some phenomena that are important in explaining these differences, such as the population structure and dynamics, each region's role in the national and global economies, and redistribution of income and provision of public services to populations of the Arctic regions, both to Indigenous Peoples and other Arctic residents. In future research and statistical work, including ECONOR reports and the recent initiative of the Wealth of the Arctic Group of Experts (WAGE) (Box 2.3), it is important to continue to improve the knowledge basis for exploring the social and economic conditions and inequalities in the circumpolar Arctic.

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U.S. Census Bureau: U.S. Census Bureau Customer Support

Notes

[1] Larsen, J.N. and L. Huskey, The Arctic economy in a global context., in The New Arctic, B. Evengård, J.N. Larsen and Ø. Paasche, Editors. 2015. Springer. pp. 159-174.

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[6] Duhaime, G. et al., Social and economic inequalities in the circumpolar Arctic, in The Economy of the North 2015, S. Glomsrød, G. Duhaime and I. Aslaksen, Editors. 2017. Statistics Norway: Oslo–Kongsvinger. p. 13.

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[8] Additional data information for Table 2.1: Data is for the year 2018 with some exceptions, including Canada: Yukon infant mortality is from 2016, tertiary education is from the 2016 census data, Gini coefficient is from the 2016 census data; Norway: Infant mortality is for the range 2011-2015, disposable income is estimated following the growth rate of 2016; Russia: disposable income is estimated based on the average growth of 2016 and 2017. As well, life expectancy can be difficult to calculate when there are smaller populations and many of the national statistical agencies present this data in time blocks to account for this. The data presented here is for: Alaska 2010-2015; Yukon 2014-2016; NWT, Nunavut, and Finland 2016-2018, Faroe Islands and Greenland 2017-2018, Iceland and Russia 2018, Norway 2011-2015, and Sweden 2014-2018. Values for Norway and Sweden are weighted averages calculated by the research team as the official data is presented for male and female separately. It should also be noted that although the 2018 infant mortality rate for the Faroe Islands was 0 in 2018, it was 8.8 in 2017. As for tertiary education, this includes all university degrees (short and long). Data for the Faroe Islands is missing because Statistics Faroe Islands does not have current data on this indicator. The most current educational attainment data for Russia is the 2010 census, therefore, the data presented in the table is the per cent of the population enrolled in tertiary education at the bachelor, specialist, or master's level. Therefore, Russian data cannot be compared with data from other regions. Finally, the Gini coefficient is a measure of income inequality within a given population. The coefficient varies between 0 and 1, where 0 signifies perfect equality, and 1 corresponds to complete inequality, i.e. where a single person has the entire income of the economy. Where possible, data for the Gini coefficient was collected based on equivalized disposable income, however, there were some exceptions: USA: Gini coefficient is officially calculated on gross household income and is not equivalized; Canada: Gini co-

efficients are not available through Statistics Canada and were calculated on 2016 census data by the research team; Russia: Gini coefficients are calculated from total pre-tax income divided by household size.

[9] This is a translation of the original text (Численность студентов, обучающихся по программам бакалавриата, специалитета, магистратуры, тыс. Человек) which is an indicator used for each region in: РЕГИОНЫ РОССИИ. ОСНОВНЫЕ ХАРАКТЕРИСТИКИ СУБЪЕКТОВ РОССИЙСКОЙ ФЕДЕРАЦИИ 2019
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[28] Simonov (2019), op. cit.

[29] Laruelle, M., Le réajustement des politiques arctiques de la Russie dans le contexte de l'après-2014. In Regards de l'Observatoire franco-russe 2019, A. Dubien, Editor. 2019. L'Inventaire: Paris. p. 316.

[30] For example: Young, T.K. and P. Bierregaard, Towards estimating the Indigenous population in the circumpolar regions. International Journal of Circumpolar Health, 2019. 78(1).

Annex 2.1. Changes in selected social and economic indicators[1] and composite index. Arctic regions, changes between 2012 and 2018[2]

Regions	Population	Female rate	Youth rate	Replacement rate	Demographic dependency	Life expectancy	Infant mortality	Tertiary education	Economic dependency	Disposable income	GRP	Gini coefficient	Composite index
	N	Per cent		Ratio		Years	Per 1 000 live births	Per cent	Ratio	USD-PPP per cap		Ratio	n
Alaska	4 696	0.0	-0.7	0.0	0.1	0.80	0.7	2.6	0.0	2 119	-6 939	0.009	-0.50
Northwest Territories	1 308	-0.1	-0.5	0.0	0.0	-0.90	5.2	2.5	0.1	1 562	7 020	-0.005	-0.25
Nunavut	3 467	0.3	0.4	0.0	0.0	-0.10	2.8	1.0	-0.1	-1 294	14 229	0.001	0.15
Yukon	4 378	0.1	0.0	0.0	0.1	0.50	4.5	2.4	0.0	854	-3 287	-0.006	-0.13
Faroe Islands	2 271	0.4	-0.4	0.0	0.0	1.20	-16.9	..	-0.2	4 061	16 163	0.000	1.33
Lapland	-4 322	0.2	-0.4	0.0	0.1	0.45	2.3	3.0	-0.1	1 882	8 695	0.000	-0.08
Northern Ostrobothnia	8 241	-0.1	-0.8	0.0	0.1	0.81	0.3	2.8	-0.1	1 687	744	0.014	-0.12
Kainuu	-4 374	-0.3	-0.6	0.0	0.1	1.31	2.7	2.7	-0.1	2 395	3 826	0.008	-0.08
Greenland	-872	0.2	-1.0	0.0	0.0	1.04	-1.6	1.9	-0.1	1 084	5 084	0.018	0.10
Iceland	28 875	-0.8	-1.4	0.0	0.0	-0.06	0.6	7.8	-0.1	3 330	9 158	-0.006	0.26
Finnmark	2 380	0.3	-1.8	0.1	0.0	0.93	1.6	3.5	0.0	763	3 903	0.022	-0.03
Nordland	5 015	-0.5	-1.1	0.0	0.0	0.68	-0.7	3.8	0.0	525	3 225	0.015	0.06
Troms	7 849	-0.4	-1.3	0.0	0.0	1.42	-1.6	4.5	-0.1	1 622	4 791	0.013	0.23
Norrbotten	1 860	-0.4	0.4	0.0	0.1	0.57	-0.9	3.2	-0.1	2 553	2 085	0.014	0.19
Västerbotten	9 937	-0.4	0.9	-0.1	0.1	0.81	-0.1	2.4	-0.1	2 326	2 834	0.018	0.28
Arkhangelsk	-58 505	-0.1	1.8	-0.1	0.1	2.45	-2.3	-1.3	0.1	-595	4 656	-0.005	0.08
Chukotka	-1 640	-0.1	0.7	-0.1	0.0	2.79	-8.5	0.3	0.1	3 978	9 677	-0.011	0.42
Karelia	-17 197	0.0	1.9	-0.1	0.1	2.56	-2.0	-1.4	0.1	-1 123	885	-0.030	0.29
Khanty-Mansii	93 836	0.2	2.2	-0.1	0.1	2.49	-1.6	-1.3	0.0	-4 212	-14 291	-0.032	0.06
Komi	-48 964	0.1	2.1	-0.2	0.1	2.73	-1.4	-1.8	0.1	-4 674	-4 220	-0.042	0.12
Magadan	-10 394	0.1	1.6	-0.1	0.1	3.47	-4.9	-3.9	0.1	549	10 015	-0.027	0.28
Murmansk	-34 391	-0.3	2.0	-0.1	0.1	1.87	-1.0	-2.6	0.1	-2 982	2 725	-0.041	0.25
Sakha	8 471	0.1	1.5	-0.1	0.1	4.79	-4.6	-1.8	0.0	-590	4 951	0.000	0.37
Yamal-Nenets	1 989	0.7	2.3	-0.1	0.1	3.41	-4.9	-1.8	0.1	261	49 630	-0.006	0.14

[1] Population growth: average annual per cent; female rate: per cent of women in total population (as compared to global average at 49.58 in 2018, from World Bank); replacement rate: distance of the ratio of children (0-14 years) and women (15-54 years) from the replacement rate of 2.1; youth rate: per cent of 0-14 years in the total population; demographic dependency: (0-14) + (65 +) / (15-64); infant mortality: per 1 000 live births; tertiary education: per cent of tertiary level graduates in total population; economic dependency: (non-employed/employed person in total population); disposable income: personal disposable income in 2018 USD-PPP; GRP: gross regional product in 2018 USD-PPP.

[2] The data from Table 2.1 is compared to the following years: Life expectancy: Canada 2010-2012; Finland and Greenland 2011-2012; Iceland and Russia 2012; Finland and Alaska 2012 (ECONOR); Norway 2006-2010; Sweden 2008-2012; Infant mortality: Norway 2006-2010; Tertiary education: Canada 2011 census data; Gini: Canada 2011 census data. In order to compare Disposable Income and GRP per capita across time, the values for 2012 were converted into 2018 USD PPP. 2012; Finland and Alaska 2012 (ECONOR); Norway 2006-2010; Sweden 2008-2012; Infant mortality: Norway 2006-2010; Tertiary education: Canada 2011 census data; Gini: Canada 2011 census data. In order to compare Disposable Income and GRP per capita across time, the values for 2012 were converted into 2018 USD PPP.

Annex 2.2: ArcticStat Circumpolar Databank

As a result of multiple sources, finding the relevant socio-economic data for the Arctic regions has long been a highly time-consuming process.

ArcticStat was created to overcome this difficulty and to increase research capacity by taking advantage of already existing data. This databank aims to facilitate research by importing, stocking, and organizing, in a user-friendly way, socio-economic data covering some 30 Arctic regions belonging to 8 countries.

The data in ArcticStat covers dwellings, population, language, health, education, migration, economy, employment, and other social and economic realities. It is an open-access web-based databank that links users directly to the relevant tables on the original websites, when possible; moreover, the portal offers a PDF and an EXCEL copy of these tables.

ArcticStat was launched in 2007, and it has been kept up to date by monitoring updates on the relevant statistical agency websites. It gives access to more than 11 800 tables through 8 indicators and some 77 sub-indicators. ArcticStat is an independent databank created at Université Laval by the Canada Research Chair on Comparative Aboriginal Condition. It was considered as a major Canadian contribution to the International Polar Year. It can be found at www.arcticstat.org

Appendix: Data sources for Chapter 2

Alaska

Bureau of Economic Analysis (BEA). SAGDP1 Gross Domestic Product (GDP) summary, annual by state
https://apps.bea.gov/iTable/iTable.cfm?acrdn=6&isuri=1&reqid=70&step=1#reqid=70&step=1&isuri=1

Bureau of Economic Analysis (BEA). SAINC4 Personal Income and Employment by Major Component
https://apps.bea.gov/iTable/iTable.cfm?reqid=70&step=1&isuri=1

Bureau of Economic Analysis (BEA). SAINC5 Personal Income by Major Component and Earnings by Industry
https://apps.bea.gov/iTable/iTable.cfm?acrdn=6&isuri=1&reqid=70&step=1#reqid=70&step=1&isuri=1

Centre for Disease Control and Prevention (National Centre for Health Statistics). Life Expectancy at Birth for U.S. States and Census Tracts, 2010-2015
https://data.cdc.gov/api/views/5h56-n989/rows.csv?accessType=DOWNLOAD&bom=true&format=true

Centre for Disease Control and Prevention (CDC Wonder). About Underlying Cause of Death, 1999-2019
https://wonder.cdc.gov/controller/saved/D76/D93F116

U.S. Census Bureau. Annual Estimates of the Resident Population for Selected Age Groups by Sex for Alaska: April 1, 2010 to July 1, 2019
https://www2.census.gov/programs-surveys/popest/tables/2010-2019/state/detail/sc-est2019-agesex-02.xlsx

U.S. Census Bureau. Educational Attainment
https://data.census.gov/cedsci/table?q=Education&g=0400000US02&y=2018&tid=ACSST1Y2018.S1501&hidePreview=true

U.S. Census Bureau. Gini index of income inequality
https://data.census.gov/cedsci/table?q=gini&g=0400000US02&y=2018&tid=ACSDT1Y2018.B19083&hidePreview=true

Canada

Statistics Canada. Census Profile. 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released November 29 2017
http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E

Statistics Canada. National Household Survey Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa. Released June 26 2013
http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/index.cfm?Lang=E

Statistics Canada. Table 13-10-0140-01 Life expectancy and other elements of the life table, Prince Edward Island and the territories
https://doi.org/10.25318/1310014001-eng

Statistics Canada. Table 36-10-0222-01 Gross domestic product, expenditure-based, provincial and territorial, annual (x 1,000,000)
https://doi.org/10.25318/3610022201-eng

Statistics Canada. Table 36-10-0224-01 Household sector, current accounts, provincial and territorial, annual
https://doi.org/10.25318/3610022401-eng

Statistics Canada. Table 13-10-0713-01 Infant deaths and mortality rates, by age group
https://doi.org/10.25318/1310071301-eng

Statistics Canada. Table 14-10-0202-01 Employment by industry, annual
https://doi.org/10.25318/1410020201-eng

Statistics Canada. Table 17-10-0005-01 Population estimates on July 1st, by age and sex
https://doi.org/10.25318/1710000501-eng

Faroe Islands

Statistics Faroe Islands. AM03030 Employees by industry, region, sex, age and month (1985-2020)
https://statbank.hagstova.fo/pxweb/en/H2/H2__AM__AM03/lont_vkaomd.px/

Statistics Faroe Islands. B01030 Population by sex, age and village/city, 1st January (1985-2020)
https://statbank.hagstova.fo/pxweb/en/H2/H2__IB__IB01/fo_aldbygd.px/

Statistics Faroe Islands. IB02050 Life expectancy by age and sex (1966-2019)
https://statbank.hagstova.fo/pxweb/en/H2/H2__IB__IB02/fd_livsavi.px/

Statistics Faroe Islands. IB02070 Mortality rate (per 1,000) by age and sex (1985-2019)
https://statbank.hagstova.fo/pxweb/en/H2/H2__IB__IB02/fd_deydkvot.px/

Statistics Faroe Islands. IP01010 Gini and Hoover indexes and income quantile ratios by age, sex, type of household and region (2009-2018)
https://statbank.hagstova.fo/pxweb/en/H2/H2__IP__IP01/innt_ginfim.px

Statistics Faroe Islands. IP01035 Income and taxes by municipality, deciles and average (2009-2018)
https://statbank.hagstova.fo/pxweb/en/H2/H2__IP__IP01/des_kom.px/

Statistics Faroe Islands. TB02010 Gross domestic product at current prices (1998-2018)
https://statbank.hagstova.fo/pxweb/en/H2/H2__TB__TB02/tb_btu.px

Finland

Finnish Institute for Health and Welfare. Select indicators
https://sotkanet.fi/sotkanet/en/haku?indicator=s_YtBgA=&region=szYPsTbSMwQA&year=sy6rsjbS0zUEAA==&gender=t

Statistics Finland. 11ra -- Key figures on population by region, 1990-2019
http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin__vrm__vaerak/statfin_vaerak_pxt_11ra.px/

Statistics Finland. 11re -- Population according to age (1-year) and sex by area, 1972-2019
http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin__vrm__vaerak/statfin_vaerak_pxt_11re.px/

Statistics Finland. 12bd -- Income and production by area, annually, 2000-2019*
http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin__kan__altp/statfin_altp_pxt_12bd.px/

Statistics Finland. 12bf -- Household income and expenditure by area, annually, 2000-2018
http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin__kan__altp/statfin_altp_pxt_12bf.px/

Statistics Finland. 12bg -- Employment and hours worked by area, annually, 2000-2019*
http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin__kan__altp/statfin_altp_pxt_12bg.px/

Statistics Finland. 12bs -- Population aged 15 or over by level of education, municipality, region, gender and age, 2007-2019
http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin__kou__vkour/statfin_vkour_pxt_12bs.px/

Statistics Finland. 127r -- Income differences and equalising impact of current transfers on income differences in dwelling population by region, 1995-2018
http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin__tul__tjt__henkiloiden/statfin_tjt_pxt_127r.px/

Statistics Finland. Appendix table 1. Life expectancy at birth by region in the period 2016 to 2018
http://tilastokeskus.fi/til/kuol/2018/01/kuol_2018_01_2019-10-24_tau_001_en.html

Statistics Finland. Appendix table 1. Life expectancy at birth by region in the period 2015 to 2017
http://tilastokeskus.fi/til/kuol/2017/01/kuol_2017_01_2018-10-26_tau_001_en.html

Statistics Finland. Appendix table 1. Life expectancy at birth by region in the period 2014 to 2016
http://tilastokeskus.fi/til/kuol/2016/01/kuol_2016_01_2017-10-27_tau_001_en.html

Greenland

Statistics Greenland. Disposable income for persons (14 years +) by municipality (2002-2019) [INEPI201]
https://bank.stat.gl/pxweb/en/Greenland/Greenland__IN__IN20/INXPI201.px/

Statistics Greenland. Educational attainment (16-74 years) i pct., 2002-2019 [UDEISCPROH]
https://bank.stat.gl/pxweb/en/Greenland/Greenland__UD__UD40__UD4020/UDXISCPROH.px/?rxid=UDXISCPROH09-11-2020%2011%3A30%3A12

Statistics Greenland. Income distribution [INEF1]
https://bank.stat.gl/pxweb/en/Greenland/Greenland__IN__IN99__IN40/INXF1.px/

Statistics Greenland. Life Expectancy 2-year basis [BEEDT2A] https://bank.stat.gl/pxweb/en/Greenland/Greenland__BE__BE10__BE20/BEXDT2A.px/?rxid=9f179859-94a3-4e93-9138-4e917bbee157

Statistics Greenland. Main employment for permanent residents by time, industry, gender, age, place of birth and place of residence [AREBFB1] https://bank.stat.gl/pxweb/en/Greenland/Greenland__AR__AR30/ARXBFB1.px/?rxid=995b81ad-5d5a-4937-a320-6054c709fddd

Statistics Greenland. Population Account (Greenland) 1994- [BEECALC] https://bank.stat.gl/pxweb/en/Greenland/Greenland__BE__BE80/BEXCALC.PX/

Statistics Greenland. Population January 1st 1977-2020 [BEEST1] https://bank.stat.gl/pxweb/en/Greenland/Greenland__BE__BE01/BEXSAT1.PX/?rxid=9f179859-94a3-4e93-9138-4e917bbee157

Statistics Greenland. Trends in GDP [NRE10] https://bank.stat.gl/pxweb/en/Greenland/Greenland__NR/NRX10.px/?rxid=9f179859-94a3-4e93-9138-4e917bbee157

Iceland

Statistics Iceland. Educational attainment of the population according to ISCED 2011 2003-2019, percentage distribution https://px.hagstofa.is/pxen/pxweb/en/Samfelag/Samfelag__skolamal__5_menntunarstada/SKO00002.px

Statistics Iceland. Gini-index and quintile share ratio 2004-2018 https://px.hagstofa.is/pxen/pxweb/en/Samfelag/Samfelag__launog-tekjur__3_tekjur__2_tekjur_silc/LIF01110.px

Statistics Iceland. Gross domestic product and Gross national income 1995-2019 https://px.hagstofa.is/pxen/pxweb/en/Efnahagur/Efnahagur__thjodhag-sreikningar__landsframl__1_landsframleidsla/THJ01102.px

Statistics Iceland. Infant mortality and late fetal deaths 1951-2019 https://px.hagstofa.is/pxen/pxweb/en/Ibuar/Ibuar__Faeddirdanir__danir__danir/MAN05321.px

Statistics Iceland. Non-financial Institutional Sector Accounts 2000-2018 https://px.hagstofa.is/pxen/pxweb/en/Efnahagur/Efnahagur__thjodhag-sreikningar__tekjuskipting/THJ06021e.px/?rxid=9500208e-db6c-4add-97bb-15068de245d4

Statistics Iceland. Population - key figures 1703-2020 https://px.hagstofa.is/pxen/pxweb/en/Ibuar/Ibuar__mannfjoldi__1_yfirlit__yfirlit_mannfjolda/MAN00000.px

Statistics Iceland. Population by sex and age 1841-2020 https://px.hagstofa.is/pxen/pxweb/en/Ibuar/Ibuar__mannfjoldi__1_yfirlit__yfirlit_mannfjolda/MAN00101.px/?rxid=c3acc3b8-16e2-4e51-9dea-69974c60e0e7

Statistics Iceland. Population by status and year 2003-2019 https://px.hagstofa.is/pxen/pxweb/en/Samfelag/Samfelag__vinnumarka-dur__vinnumarkadsrannsokn__3_arstolur/VIN00901.px/?rxid=25c3ccc8-0c1a-4b7b-80cb-93e8ee466525

World Bank. World Development Indicators (for life expectancy) https://databank.worldbank.org/reports.aspx?source=world-development-indicators#

Norway

Statistics Norway. 05378: Infant mortality (C) 1966-1970 - 2011-2015 https://www.ssb.no/en/statbank/table/05378/

Statistics Norway. 05797: Expectation of lifetime, by sex and selected age (C) 1971-1975 - 2011-2015 https://www.ssb.no/en/statbank/table/05797/

Statistics Norway. 07459: Population, by sex and one-year age groups (M) 1986 – 2020 https://www.ssb.no/en/statbank/table/07459/

Statistics Norway. 09114: Measures of income despersion. Household equivalent income (EU-scale) between persons (M) (UD) 2004 – 2018 https://www.ssb.no/en/statbank/table/09114

Statistics Norway. 09429: Educational attainment, by municipality and sex (M) 1970 – 2019 https://www.ssb.no/en/statbank/table/09429/

Statistics Norway. 11713: Regional accounts, by industry (C) 2008 – 2018 https://www.ssb.no/en/statbank/table/11713

Statistics Norway. 12815: Households' income (C) (closed series) 2011 – 2016 https://www.ssb.no/en/statbank/table/12815/

Sweden

Statistics Sweden. Deaths by region, age (during the year) and sex. Year 1968 – 2019 https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__BE__BE0101__BE0101I/DodaHandelseK/#

Statistics Sweden. Disposable income of households (ESA2010) by region (NUTS1-3) and transaction item. Year 2000 – 2018 https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__NR__NR0105__NR0105A/NR0105ENS2010T02A/

Statistics Sweden. Gross Regional Domestic Product (GRDP), number of employed and wages and salaries (ESA2010) by region (NUTS1-3). Year 2000 – 2018 https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__NR__NR0105__NR0105A/NR0105ENS2010T01A/#

Statistics Sweden. Income inequality indicators by region. Year 2011 – 2018 https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__HE__HE0110__HE0110F/Tab1DispInkN/#

Statistics Sweden. Live births by region, mother´s age and child´s sex. Year 1968 – 2019 https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__BE__BE0101__BE0101H/FoddaK/

Statistics Sweden. Population by region, marital status, age and sex. Year 1968 – 2019 https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__BE__BE0101__BE0101A/BefolkningNy/#

Swedish Register of Education. Number of persons (16+) with a tertiary education concluded with a degree in Västerbotten and Norrbotten county 2012-2018. Data obtained through Statistics Sweden.

Russia

Fed Stat. Коэффициент Джини (индекс концентрации доходов) (January December) [Gini Coefficient (income concentration index) (January December)] https://www.fedstat.ru/indicator/31165

Fed Stat. Младенческая смертность (на 1 тыс. родившихся живыми) (ppm (0.1 percent), значение показателя за год) [Infant mortality (per 1,000 live births) (ppm (0.1 percent), value per year)] https://www.fedstat.ru/indicator/55376

Fed Stat. Ожидаемая продолжительность жизни при рождении (year, indicator value for the year) [Life expectancy at birth (year, indicator value for the year)] https://www.fedstat.ru/indicator/55386

Fed Stat. Численность постоянного населения - мужчин по возрасту на 1 января (man) [Number of resident population - males by age as of January 1 (man)] https://www.fedstat.ru/indicator/31548

Fed Stat. Численность постоянного населения - женщин по возрасту на 1 января (человек) [Number of resident population - women by age as of January 1 (people)] https://www.fedstat.ru/indicator/33459

Rosstat. РЕГИОНЫ РОССИИ. ОСНОВНЫЕ ХАРАКТЕРИСТИКИ СУБЪЕКТОВ РОССИЙСКОЙ ФЕДЕРАЦИИ 2019 СТАТИСТИЧЕСКИЙ СБОРНИК. 2019, Москва: Росстат. [Regions of Russia. Main characteristics of the subjects of the Russian Federation 2019 statistical digest. 2019. Moscow: Rosstat.]

Rosstat. Численность занятых в возрасте 15-72 лет по субъектам Российской Федерации [Number of employees aged 15-72 years by regions of the Russian Federation] https://rosstat.gov.ru/storage/mediabank/aBHrzZ2j/trud2_15-72.xls

Statistics Showcase. 22111200200050200001 Общий объем денежных доходов населения (до 1998г. - в млрд. руб.) [Total cash incomes of the population (until 1998 - in million rubles)] https://showdata.gks.ru

Statistics Showcase. 21220000200080200002 Валовой региональный продукт [Gross regional product] https://showdata.gks.ru

World Bank

World Bank. Population, female (% of total population) https://data.worldbank.org/indicator/SP.POP.TOTL.FE.ZS?end=2018&start=2018

OECD

OECD. 4. PPPs and exchange rates https://stats.oecd.org/viewhtml.aspx?datasetcode=SNA_TABLE4&lang=en#

Box I. The use of Purchasing Power Parities in this report[1]

The main purpose of this report is to provide an overview over economic activity in the Arctic regions. A major challenge has therefore been to compare and add up value of production in terms of income of industries of regions in different countries. A conversion of income data based on a straightforward use of market exchange rates (MER) will normally not appropriately reflect the income levels of the different regions. To adjust for price level differences across regional markets Purchasing Power Parity (PPP) indicators have been applied. However, also PPP conversion may sometimes lead to a biased assessment of production and income levels.

Fishing in Qeqertarsuatsiaat, Greenland. Photo: Hunter T. Snyder

Chapter 3 provides an overview of the economic activity in the circumpolar region. Based on PPP-conversions it is estimated that gross product of the circumpolar Arctic in 2018 was 615 billion USD-PPP corresponding to 0.7 percent of the world economy. The Arctic regions of Russia alone accounted for 449 billion USD-PPP, or 73 percent.

PPP-converted gross products (value added) are proxies for income in terms of capacity to consume. In that respect income levels in the Arctic vary from a low of 42 000 USD-PPP per capita in Northern Finland to a high of 75 000 USD-PPP per capita in Alaska (see Figure 3.8).

It is interesting to note the differences between income in arctic versus non-arctic regions within the Arctic states. For example, per capita income of Russia outside the Arctic is around 21 000 USD-PPP while it is as high as 67 000 USD-PPP in the Russian Arctic. In Norway the pattern is reversed: While per capita income outside the Arctic is 62 000 USD-PPP, the income level of Artic Norway is 46 000 USD-PPP. A major factor behind these differences is that the income from petroleum in Norway is registered outside the arctic region, in Russia this is not the case.

As noted, the data for the different countries have originally been reported in national currencies but have in this report been converted into a common currency using purchasing power parities. Alternatively, the national currency data could have been converted into a common currency by use of the market exchange rates (MER). The Russian share of the Arctic gross product would, for example, then have been estimated to 50 per cent, instead of 69 per cent (see also Figure 2).

In most studies comparing income of different countries, PPP-conversion is preferred to market exchange rates. We have followed this tradition and have applied PPP-converters developed by the International Comparison Program and the OECD-Eurostat PPP-program.

The advantage of PPP-conversion is taking into account that price levels vary considerably between countries. A frequently applied illustration of the variation in price levels is the price of a Big Mac in different countries. Using market exchange rates, the average price of a Big Mac in Sweden was 6.37 USD in January 2021, whereas the price in Russia at the same time was 1.81 USD. This illustrates that almost identical products are priced quite differently if we use market exchange rates as the basis for price comparisons. Consequently MER-conversion of income levels might give seriously misleading numbers as far as production and consumption potentials are concerned.

[1] **Bjart Holtsmark**, Statistics Norway, contributed this text for the first ECONOR report, now with updated data.

When practicing PPP-conversion we would have preferred to use PPP-factors specific for the Arctic regions in each country, but Arctic-regional PPP-factors have not been developed. Instead, we have applied PPP-factors for the national economies.

It is difficult to judge to what extent the use of national PPP-measures is misleading. If the economies of the Arctic regions simply were downscaled versions of the economies of the respective nations and products were priced uniformly across regions, the national PPP-converters would not have been a source of error. However, the Arctic regions are quite different from their respective national economies, as discussed in chapter 4. Moreover, the general price levels are different between different regions within the individual countries. A Big Mac is, for instance, more expensive in Anchorage than in New York. Hence, just as the use of MER-based numbers would represent a source of error, using national PPP-based numbers is also a source of error.

There are indications that the price level in arctic regions might be somewhat higher than in the rest of the respective Arctic states due to extended transport distances as well as more limited infrastructure. Further, the arctic economies tend to be more involved in mineral extraction and public services provision than the south, both activities with relatively high wage rates. If this is the case, the PPP adjustment of income level of the arctic region would be biased upwards.

The Russian Arctic region is more dominated by oil and gas production than the rest of the Russian economy. Oil and gas are internationally tradable goods and the relatively high average income level of the Russian Arctic is largely due to the export of oil and gas traded in USD. The dominance of the petroleum industry in the Russian Arctic indicates that the use of a PPP-converter calculated for the Russian economy will probably imply a downwards bias when it is applied to the Russian Arctic regions. However, a higher price level in the Russian Arctic would tend to modify that bias.

Figure 1 illustrates how sensitive the estimates of regional GDP per capita are to the choice between PPP and MER. When PPP-factors are applied, regional GDP per capita in Russian Arctic is higher than in the Arctic regions of the Scandinavian countries. However, as MER-factors are applied, the income levels in Arctic Russia appear to be much lower.

It should be noted that we have reported data on regional GDP, not gross regional incomes. Regional GDP represents regionally generated income and does not include transfers in and out of the regions. Hence, regional GDP per capita does not constitute a precise representation of income levels in the different regions.

Figure 1. GDP per capita by Arctic region 2018. 1 000 USD at 2018 prices

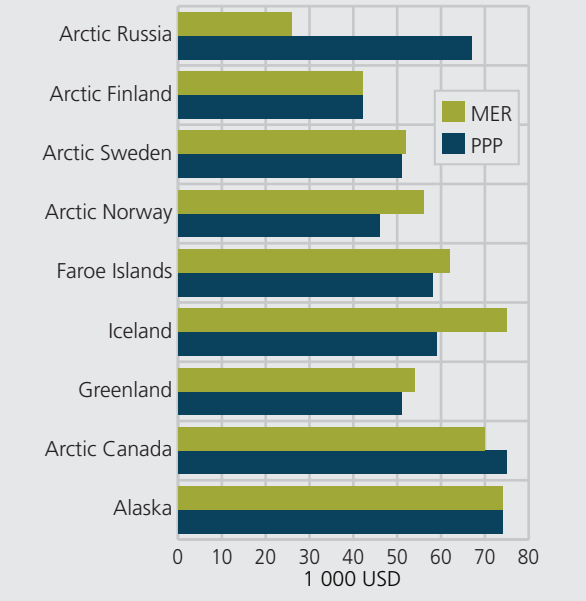
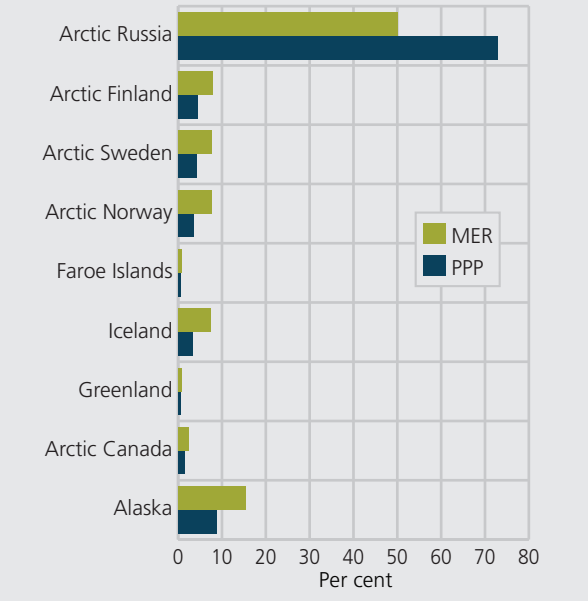


Figure 2. Arctic Region share of total circumpolar GDP 2018. Per cent



Box II. Sámi statistics in Norway

The Sámi traditional settlement area is in the north of Norway, Sweden and Finland, and at the Kola Peninsula in Russia. The national statistical offices of the Nordic countries publish population statistics based on census and population registers. However, ethnicity is not included as a dimension in the census, neither for Sámi nor for any other ethnic groups. It is therefore not possible to produce statistics for the Sámi population from the population registers.

From 1845 to 1930 the census in Norway included estimates of the number of Sámi and kvener (people of Finnish descent in Northern Norway). The 1950 census provided estimates of the use of Sámi and Kven language in some villages in the northern counties in Norway. The 1970 census was the last time when questions about Sámi language and ethnical background were included, in a supplementary questionnaire to selected municipalities and local communities in the northern counties.

It is difficult to assess the number of Sámi in Norway based on previous census data. The reason is partly that the censuses used different basis for defining who is Sámi, according to ancestry, language or self-reporting, and partly that not all Sámi were reached by the census as the supplementary questionnaire about Sámi identity only was used in selected municipalities. The census had registered a Sámi population of about 15 000 from 1845 to 1875, and the number increased to about 20 000 from 1890 to 1930. In 1950 the number was 8 778, a number that was considered far too low. In 1970 the number was slightly below 10 000.

Table 1. Income account for households. All of Norway, STN-area, and north of Saltfjellet. Average for households that have the income category. NOK. 2017

	All of Norway	STN-area[1]	Other areas in North Norway[2]
Income from work	717 400	596 100	672 600
Employee income	692 000	560 600	644 600
Net income from self-employment	276 400	266 100	297 300
Property income	45 600	16 000	28 600
Taxable transfers	290 200	300 600	289 600
Social security benefits	302 600	299 500	302 700
Unemployment benefit	96 600	81 800	81 100
Compensation for illness leave	61 600	69 900	67 500
Tax-free transfers	37 500	37 300	37 000
Child allowances	21 400	22 000	21 400
Dwelling support	20 200	12 300	16 200
Social assistance	53 000	31 300	43 400
Total income	814 200	707 300	775 700
Total assessed taxes and negative transfers	215 400	156 500	193 600
After-tax income	606 400	559 400	588 600

[1] The STN-area is defined as the areas that qualify for support from the Sámi Parliament to business development.
[2] Those areas north of Saltfjellet not defined as STN-area.
Source: Statistics Norway

The last decades have seen a distinct change in policies and attitudes towards Sámi people in Norway. Assimilation into the Norwegian society was a clearly stated policy for a long period, lasting long into the post world war II period. Sámi were expected to give up their language and adopt the way of life of the majority population. Starting around 1980, considerable efforts have been made to reverse the consequences of assimilation policies and to secure the rights of the Sámi people. A Sámi Parliament has been established, with its first election in 1989.

There has, however, been a lack of statistical information basis to describe Sámi society and evaluate to what extent political objectives have been achieved. In 2003 the Sámi Parliament commissioned a project with cooperation between Statistics Norway and Sámi Instituhtta (Nordic Sámi Institute) to develop a permanent framework for development, production and dissemination of Sámi statistics. Since the central population register does not include information on individual ethnicity, as explained, other approaches must be taken. The solution chosen so far is to produce statistics for areas defined as Sámi settlement areas. IIn practice, this was operationalized by selecting those areas that qualify for support to business development from the Sámi Parliament, the STN area.[1] The geographical area for support has been extended several times, most recently in 2012.

The main argument for choosing this geographical approach is that the selected area encompasses local communities whose viability is seen as crucial for sustaining and further developing Sámi culture and local businesses, at the same time as the Sámi Parliament has support schemes applicable to this area. In order to plan the use and evaluate the effect of these policy instruments, the Sámi Parliament needs data that can illustrate current status and development over time.

This geographical approach to Sámi statistics, based on the STN area, has obvious shortcomings. Many of the inhabitants in these areas are not Sámi, and many Sámi live outside these areas The entire STN area lies north of the Arctic Circle, and none of the large towns of Northern Norway are within the STN area. To a large extent, the difference between Sámi and non-Sámi areas observed in the statistics therefore reflects the difference between urban and rural areas, and to some extent the difference between north and south. A statistical approach that would have allowed comparison of Sámi and non-Sámi, independently of place of residence, might have been better.

Statistics Norway has explored the possibilities to produce Sámi statistics for individuals, by combining existing registers where individuals directly or indirectly have declared themselves as Sámi, such as the 1970 census, the register of the Norwegian Agriculture Agency, of persons affiliated with reindeer herding, and the electoral register of the Sámi Parliament.[2] The results from this work was not followed up, partly due to difficulties to achieve permission to use and combine the registers, and uncertainty about the representativity of the sample of the Sámi population.

Sámi reindeer herding, Finnmark. Photo: Tom Nicolaysen.

Statistics Norway continues to produce geographically based Sámi statistics. As long as the Sámi Parliament continues to provide support to particular geographical areas, regardless of whether the applicant is Sámi or not, it will be important to closely follow the development in these areas. The first of these bi-annual publications Samisk statistikk/Sámi statistihkka 2006 was launched in 2006 on the Day of the Sámi People on 6 February. The topics cover elections to the Sámi Parliament, population, education, including use of Sámi language in schools and kindergartens, income and personal economy, labor market, reindeer herding and agriculture, and fishing and hunting.

A Government appointed expert group, where Statistics Norway is represented, has been assigned the mandate of compiling an annual report on the situation and trends in the Sámi community. The report, Samiske tall forteller (Sámi statistics speak), is used in annual budgeting and consultations between the government and the Sámi Parliament. An English translation of selected articles was published in 2018 as Sami Statistics Speak.

Population data for the current STN areas have been calculated back to 1990. The population in these areas has in recent years been about 55 000 persons, now declining after a stable level from 2011 to 2017, following a continuous decline since 1990, when population was 10 000 persons higher. There is no population growth observed in the STN area from 2010 to 2020, although population in Norway has increased with almost 510 000 persons, or 10.5 per cent, over the same period.

Table 1 shows the income account for households in the STN area in 2017, compared to other areas of northern Norway (north of Saltfjellet) and average for Norway. Average total household income (before tax) for the STN area was about 9 per cent lower than for other northern areas and about 13 per cent below the average for Norway. Average income from employment and from property was considerably lower in the STN area than the average for other northern areas and for Norway. Taxable transfers were higher in the STN area. Average unemployment benefit in the STN area is almost equal as in other northern areas, but lower than average for Norway. Child allowance is the only tax-free income type that is higher on average for recipients in the STN area. Average after-tax (disposable) household income for the STN area was 5 per cent lower than average for other northern areas and about 8 per cent lower than the average for Norway.

[1] The Norwegian term for support from the Sámi Parliament to business development is «Sametingets tilskuddsordninger for næringsutvikling» (STN).

[2] Holth, B. A. & Lillegård, M. 2017. Statistikk over samiske språkbrukere i Norge. En kartlegging av eksisterende datakilder og vurdering av fremgangsmåter for statistikk. SSB/Statistics Norway, Notater 34:2017.

Arctic catfish sold at local marketplace, Nuuk, Greenland. Photo: Tom Nicolaysen