Polar Peoples in the Future:

Projections of the Arctic Population

EXECUTIVE SUMMARY

This executive summary examines the projected size, composition and geographic distribution of the population of the Arctic in the future, by examining the population projections carried out by the national and regional statistical offices in each of the Arctic regions. The executive summary is based on the Nordregio Working Paper, *Polar Peoples in the Future: Projections of the Arctic Populations*. Population projections are an input into population policy and are used by policymakers for a variety of planning purposes. Policymakers operating at different levels in the Arctic region should be aware of these population trends and able to plan for them.

Global population growth is currently in a period of significant expansion, and it is projected to continue increasing from the current total of 7.4 billion to 10 billion by 2055. The population of the Arctic, as defined here, is projected to change only a little in the foreseeable future. However, there will be considerable variation in growth rates among the Arctic regions. Alaska, Yukon, Nunavut, Iceland, Troms, Khanty-Mansiy Autonomous Okrug and Chukotka Autonomous Okrug are projected to experience a substantial population increase of more than 10%. Nordland, Finnmark, Pohjois-Pohjanmaa (North Ostrobothnia) and Nenets Autonomous Okrug are projected to experience more modest growth of between 5% and 10%. The population of the Northwest Territories in Greenland, the Faroe Islands, Västerbotten, Norrbotten, Lappi, Yamal-Nenets Autonomous Okrug, Yakutia, and Kamchatka krai are projected to remain roughly the same, neither growing nor declining by more than 5% each. Kainuu in Finland, Karelia, Komi, Arkhangelsk, Murmansk, and Magadan in Russia are projected to have population reductions of more than 5% each. Common trends seen in nearly all Arctic regions in the future are those

of aging populations, more balanced gender ratios between men and women, increased population concentration in larger urban settlements, and the depopulation of smaller settlements.

PROJECTIONS OF ARCTIC POPULATIONS

Global population growth

Global population growth in the past, and moving into the future, has had (and will continue to have) a profound impact on the Arctic and its population. The past and projected period of rapid population growth is a major contributor to global warming – which, as has often been noted, is occurring much faster in most of the Arctic than anywhere else. The increased number of people on the planet, combined with their increased affluence, leads to a greater consumption of resources, along with increased greenhouse gas emissions. Between 1950 and 2015, the global population increased nearly threefold, from 2.5 to 7.4 billion. The global population is now projected to reach 8 billion in 2023, 9 billion in 2037, 10 billion in 2055, and 11 billion in 2088.

Alaska

Between the time it became one of the American states in 1959, and 1 July 2015, the population of Alaska grew from 224,000 to 737,625. Natural increase has provided rather consistent levels of population growth there. The boom and bust of resource extraction has led to large fluctuations in migration both into and out of the state. Such factors make projecting the migration component for parts of the Arctic region especially uncertain. The middle scenario, which calls for 0% net migration, projects a 22% population increase to 899,825.

In Alaska, as with other Arctic regions, there is a trend towards urbanisation, meaning that the larger population centres have the highest rates of population growth. Since 2010, 70% of the population increase in Alaska has been in the Anchorage and the Matanuska-Susitna Borough. Figure 1 shows projected population change between 2015 and 2045 (colours of the regions) and total population size in 2010, 2015 and 2045 (height of bars). According to the medium projection, Alaska is projected to add 162,000 people between 2015 and 2045. Three-quarters of this increase is projected to be in the Anchorage and the Matanuska-Susitna Borough.

Figure 1: Population of Alaska by borough, 2010, 2015 and 2045.
Source: Alaska Department of Labor and Workforce Development.
Author: Olivia Napper.

Arctic Canada

Three northern territories make up Arctic Canada – Yukon, Northwest Territories and Nunavut. According to territorial projections by Statistics Canada, for Yukon, the population will increase slightly from 36,700 in 2013 to 43,100 in 2038 in the middle scenario. In some of the scenarios, Yukon's population in 2038 would be slightly lower than that observed in 2013. The population of the Northwest Territories was 43,500 in 2013 and is projected to grow very slightly to 44,300 in 2038. The population of Nunavut was 35,600 in 2013 and is projected to increase under all scenarios. The population is projected to increase to 46,600 in the medium scenario. Fertility and the younger age structure in Canada are the key drivers of population growth in Nunavut. Much of the variation in population change

in Arctic Canada over the course of the next 25 years will depend upon the direction of migratory exchanges with other parts of Canada. Historically, they have all sustained net losses through inter-provincial migration.

The settlement patterns for the three territories in Arctic Canada in 2001, 2016 and 2035 are shown in Figure 2. The population of the Canadian Arctic resides in a quite limited number of settlements with large tracts of uninhabited space. Yukon's population resides in 25 settlements, with 70% in Whitehorse. The population of the NWT resides in 33 communities, with 49% located in the capital of Yellowknife. The population of Nunavut resides in 25 communities. Nunavut has a deliberate policy of diffusing public-sector jobs to smaller communities outside the capital, Iqaluit. The capital therefore contains only 21% of the population.

Photo: Abben S. / unsplash.com

Figure 2: Population of settlements in the Canadian Arctic, 2001, 2016 and 2035.
Source: Yukon Bureau of Statistics, NWT Bureau of Statistics, and Nunavut Bureau of Statistics.
Author: Olivia Napper

Greenland

The population of Greenland has remained remarkably constant over time. In 1990, the total population was 55,558, and in 2016 it was 55,847. This is because any excess of births over deaths is matched by roughly the same amount of net out-migration. Because of past above-replacement levels of fertility, Greenland has a more youthful age structure. This will keep natural population increase positive well into the future. According to the latest

projections, the population of Greenland is expected to decline slightly, to 52,207 by 2040.

Since 1977, Nuuk has more than doubled in size, from 8,545 to 17,572, and the share of Greenland's population living in Nuuk has increased from 17% to 32%. This growth in Nuuk has come from smaller towns and settlements, which have declined from 46% to 31% of the total population. These same regional growth patterns are projected to continue into the future, when it is forecast that Nuuk will comprise 40% percent of Greenland's total population.

Iceland

Iceland has had continuous population increase in recent decades, and this is expected to continue into the future. Since 2000, the country's population has increased by 18%. At the beginning of 2016, the population of Iceland was 332,529. Under the medium scenario, the population of Iceland is projected to grow to 443,309, a 33% increase over the course of the next half-century.

Net migration into Iceland fluctuates somewhat, based on the economic situation in the country rising sharply in the early 2000s, and then falling significantly following the banking crisis of 2008. However, the general trend is towards positive net migration, which is having a significant impact on the Icelandic economy and on society. In the 20 years since 1996, the foreign-born population in Iceland has increased from 4.9% to 14.9% of the population. Net migration into Iceland is projected to be positive under any of the three scenarios.

Figure 3: Population of Iceland by region, 1998, 2017, 2040 and 2066.

Source: Statistics Iceland.

Author: Olivia Napper

There has been a long-term trend of migration into (and population concentration within) the Reykjavik capital region, as the economy modernises and moves away from agriculture towards services. Between 1998 and 2017, the percentage of the population residing in the capital area increased from 60.4% of the population to 64.1% (Figure 3). Over the projection period, the population of the capital region will increase by 136,000 to 353,000 in 2066. If the projections hold, at that time 78% of Icelanders – nearly four in five – will reside in the capital area. The number of people residing outside the capital region is projected to decline from the present 121,000 to fewer than 100,000 in 2066.

Faroe Islands

The Faroe Islands have had slow population growth over the past 25 years, with its population increasing by only 3% between 1990 and 2016, from 47,773 to 49,188. With a relatively high

fertility rate, which has averaged around 2.5 children per woman since 1990, there has been positive natural population growth, continuing on towards a 16.4% increase. This has been combined with swings in net migration, depending on economic factors – especially in the fishing industry in the Faroes. On balance, since 1990, there has been out-migration contributing to a 13.3% decline in population.

According to the middle value, the population is projected to increase slowly towards a peak of 50,941 in 2029, an increase of less than 2%. It will then gradually decline until 2055, when it is projected to be 48,549, which is a decrease of 3% since 2016. Overall, during the period 1990 to 2055, the population size of the Faroes is expected to change very little.

As in other Arctic regions, there is expected to be an increase in population concentrated in the capital region, which is projected to increase from 42.0% of the population in 2016 to 47.4% in 2055. By then it is expected that nearly half of the Faroese population will reside in the capital, Tórshavn.

Photo: Annie Spratt / unsplash.com

Arctic Norway

In Norway, there are three regions considered Arctic – Nordland, Troms, and Finnmark. The population of Arctic Norway was 487,000 in 2018. This includes several large cities, such as Tromsø (population 65,000), and Bodø (51,000).

Since 1990, the population of Norway has increased by over one million, which is nearly 25%. A natural increase

accounted for 40% of this rise, and net migration for the other 60%. The populations of the other three Arctic regions increased much less: Nordland by 1.4%, Troms by 13.0%, and Finnmark by 2.7%.

The population of Norway is projected to increase by 21% between now and 2040.

The Arctic regions are also projected to increase, but by less. In Troms by 11% and Norland and Finnmark by 7% (Figure 4).

Figure 4: Population in the Arctic regions of Norway, Sweden, and Finland, 1990, 2018 and 2040.

Source: Statistics Norway, Statistics Sweden, and Statistics Finland.

Author: Olivia Napper.

Arctic Finland

Arctic Finland, which consists of North Ostrobothnia, Lappi, and Kainuu, differs from many Arctic regions, in that it has a large manufacturing centre based on electronics and other high-tech activities, plus several larger universities and research centres.

The population of Arctic Finland was 660,000 in 2018 and consisted of several large cities such as Oulo (population 201,000) and Rovaniemi (62,000). Since 1990, the population of Finland has increased by 10%, growing from just under 5 million to 5.5 million in 2017. Natural increase and net immigration each contributed around half of this increase. Of the three Arctic regions in Finland, only North Ostrobothnia grew over this period, increasing by 18% – all from natural increase, since there was close to zero net migration. At the same time, Kainuu declined by 19% and Lappi by 10%. In both instances, nearly all the decline was attributable to out-migration.

Through to 2040, the population of Finland is projected to grow by 6%, to 5.9 million. Most of this will be due to net immigration, since the natural increase is projected to be negative over much of the period. Pohjoil-Pohjanmaa (North Ostrobothnia) is projected to continue growing, by 7% up to 2040, mostly from natural increase. Kainuu is projected to continue to decline, by 11% until 2040, mostly due to out-migration. Lappi is projected to have a moderate decline of 3%, mostly from out-migration.

Arctic Sweden

The two most northern regions in Sweden, Norrbotten and Västerbotten, are considered Arctic. In 2018, the population of Västerbotten was 268,465, and the population of Norrbotten was 251,295. The population of Arctic Sweden was 520,000 in 2018, including two large regional centres, Umeå (population 85,000) and Luleå (77,000). These are located along the coast, where increasingly large proportions of the population reside.

Since 1990, the population of Sweden has grown considerably, from 8.5 million to 10.1 million (a 19% increase). Three-quarters of this growth was due to net immigration. Västerbotten has grown by 7% since 1990, with net migration being the major component of this. At the same time, Norrbotten has declined by 4%, due to a combination of having more deaths than births and net out-migration.

Through to 2040, the population of Sweden is projected to grow by 13%, to 11.6 million, with net immigration contributing much of that growth. Västerbotten is projected to grow by 2.6%, to 276,309 in 2040, and Norrbotten is projected to decrease by 4.6% to 241,647 in the same period.

Arctic Russia

The manner in which the Soviet Union went about developing its Arctic and Siberian regions stands in sharp contrast to other Arctic countries. The centrally-planned Soviet economy put many more people there, and created much larger cities in the Arctic and Siberia, than would have happened if the region had developed under market conditions.

The breakup of the Soviet Union, the transition to a market economy, and the liberalisation of society all resulted in significant demographic upheavals in Russia and the Russian Arctic. The population of the Russian Arctic adjusted to the new economic conditions by declining by 20%. This happened through the combination of a

slight natural increase, and large-scale outward migration of nearly a quarter of the population. There was decline in both the population size and the settlement structure, as a number of settlements across the Russian Arctic were either closed or abandoned when they became depopulated. Out-migration and population decline were greater in regions further east and in some smaller regions, particularly in a number of the ethnic homelands of indigenous Arctic peoples.

The population of the Russian Arctic was 9.4 million in 1989, and declined to 7.0 million in 2018. It is projected to decline to 6.9 million in 2036. Only three of the eleven Arctic regions are expected to have a population increase – the Nenets, Khanty-Mansi, and Chukotka Autonomous Okrugs (Figure 5).

Figure 5: Population in the Russian Arctic, 1989, 2018 and 2036.

Source: Rosstat.

Author: Olivia Napper

CONCLUSION

While the populations of some Arctic regions are projected to grow and others are projected to decline, there are some common demographic trends which are expected to take place in nearly all.

■ **Ageing:** In common with many countries and regions in the developed world, the populations of the Arctic region are projected to age in the future. The largest absolute growth is typically projected to be among elderly and retired people. The relative percentage of the older population will increase in all of the Arctic regions that include age data as part of their projections.

■ **Sex ratios:** Arctic regions have typically had rather higher ratio of men to women, which are now projected to decline. For instance, in Alaska, the ratio was 108.5 males to 100 females in 2010. The former is projected to decline to 104.8 in 2045. Greenland has long had a high male sex ratio, in part because of higher levels of female out-migration. In 1977,

there were 118 males per 100 females. This ratio has declined to 112 males per 100 females currently, and it is projected to decline slightly further through to 2040, when the ratio will be 109 males per 100 females.

■ **Urbanisation:** The concentration of people into larger urban settlements is certainly a trend which has been taking place across the Arctic, as people move from smaller settlements up the urban hierarchy. They do this because of educational and job opportunities in larger settlements, and because of amenities which the smaller settlements lack. It appears that the population size in many smaller Arctic settlements will decline, and some may even be abandoned, while much of the growth will be concentrated in larger settlements – in some cases, just one large settlement. Government officials at national and regional level in the Arctic need to be aware of these centralising trends, and to plan for them.

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