



STATE OF THE NORDIC REGION 2018

Appendix – Chapter 2: Population projection



Table I provides an overview of the latest rounds of population projections at the national level published by the various NSIs across the Nordic countries and regions. Projection intervals range from 2040 in Greenland to 2110 in Sweden. As shown in the table's third column, multiple projection scenarios have been published by the NSIs of Iceland and Norway. The Statistical Office of the Faroe Islands has calculated so-called 'probabilistic population projections' which are based on 10,000 scenarios. Table I also summarises the main assumptions about future trends in fertility, life expectancy and net migration (defined as the expected number of immigrants minus the expected number of out-migrants). If more than one scenario is available, the table shows the assumptions that were used in the 'main' or 'median' scenario. The NSIs differ in their expectations for the coming decades. For instance, the NSIs of Sweden, Greenland and Denmark assume that fertility rates will increase up to 2030 (in the case of Denmark, this assumption applies to Danish citizens; separate fertility assumptions are made for different groups of immigrants, and these sometimes assume fertility declines). In contrast, fertility levels in Norway, Finland and Iceland are expected to remain constant or even to decline. Similar differences apply in the case of expected migration numbers. The NSIs concur more strongly with respect to future changes in mortality: Mortality levels are expected to decline everywhere, leading to an increase in life expectancy at birth. The 10,000 scenarios calculated by the Statistical Office of the Faroe Islands are based on fertility, mortality and migration patterns from the years 1985 to 2015, but no documentation is available to show which concrete assumed trends underlie the median projection. Differences in demographic assumptions must be kept in mind when comparing projection results across the Nordic Region as they influence the projection results that we present in the maps and tables of this chapter.

Table I: Population projections at the national level from the NSIs

	Projection period	Number of scenarios	Assumptions about trends until 2030 in:		
			Fertility	Life expectancy at birth	Net migration
Denmark ¹	2017-2060	1	Increase (Danish population)	Increase	Decline
Finland ²	2015-2065	1	Constant	Increase	Increase
Iceland ³	2017-2066	3	Decline	Increase	Decline
Norway ⁴	2016-2100	15	Constant	Increase	Decline (after initial increase in numbers)
Sweden ⁵	2017-2110	1	Increase	Increase	Decline
Faroe Islands ⁶	2016-2055	10,000	N.A.	N.A.	N.A.
Greenland ⁷	2017-2040	1	Increase	Increase	Constant

For most research purposes, population projections at the national (country) level provide sufficient information. If, however, future trends in urbanisation or regional development are to be studied, projections at the regional or municipal level may be required. In the Nordic Region, the NSIs of Finland, Denmark, Norway and Greenland have published projections at the municipal level (see Table II). Projections by the Statistical Office of the Faroe Islands distinguish only between the area of Tórshavn and the rest of the region. In Iceland, the Statistical Office only uses national-level projections while in Sweden, projections at the municipal level can be obtained from the Swedish Agency for Economic and Regional Growth, but not from the Statistical Office.

The NSIs who published municipal population projections followed different approaches (see table column 5). The NSIs of Denmark, Finland and Greenland have calculated separate population projections for each municipality. Assumptions about future trends in fertility, mortality and migration were generally defined on the municipal level to reflect differences in demographic conditions. These projections also model internal migration between municipalities, in addition to international migration, as one factor that will influence future popu-

¹ Statistics Denmark (2017a).

² Statistics Finland (2017a).

³ Statistics Iceland (2017).

⁴ Statistics Norway (2016a).

⁵ Statistics Sweden (2017).

⁶ Statistics Faroe Islands (2016).

⁷ Statistics Greenland (2017).

lation trends. The Statistical Office of Norway has calculated projections at the level of subnational regions. In a second step, these were then divided into the municipalities within each region by predefined quotients. In addition to these methodological differences, the municipal projections also differ in terms of projection period and the number of scenarios that are published. Again, these differences must be considered when comparing the projection results that we present in this chapter.

Table II: Population projections at the national level from the NSIs

	Number of municipalities	Projection period	Number of scenarios	Separate projections for each municipality?	Separate vital rate assumptions for municipalities?	Internal migration modelled?
Denmark ⁸	98	2017-2045	1	Yes	Yes	Yes
Finland ⁹	311	2015-2040	1	Yes	Yes	Yes
Iceland ¹⁰	Projections at municipal level are not available.					
Norway ¹¹	426	2016-2040	9	No. Regional projections are broken down to municipal level	No, but separate assumptions are made for different regions	Yes
Sweden	Projections at municipal level are not available from the Statistical Office, but published by the Swedish Agency for Economic and Regional Growth (Tillväxtverket).					
Faroe Islands	Projections are only available for 'Tórshavn area' and 'outside the area of Tórshavn'.					
Greenland ¹²	4 Kommunes, some towns and settlements	2017-2030	1	Yes	Yes	Yes

⁸ Statistics Denmark (2017b).

⁹ Statistics Finland (2017b).

¹⁰ Statistics Norway (2016b).

¹¹ Tillväxtverket (2017).

¹² Statistics Greenland (2016).