

STATE OF THE NORDIC REGION 2018

THEME 2: LABOUR FORCE



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Theme 2: Labour force

Julien Grunfelder, Linus Rispling and Gustaf Norlén (eds.)

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COUNTRY CODES FOR FIGURES

AX	Åland
DK	Denmark
FI	Finland
FO	Faroe Islands
GL	Greenland
IS	Iceland
NO	Norway
SE	Sweden

EU	The European Union
EU28	The 28 European Union member states

OTHERS

b	billion
BSR	Baltic Sea Region
EFTA	European Free Trade Agreement
EII	Eco-Innovation Index
Eco-IS	Eco-Innovation Scoreboard
ESPON	European Observation Network for Territorial Development and Cohesion
FDI	Foreign Direct Investments
FTE	Full-time equivalent
GDHI	Gross disposable household income
GDP	Gross Domestic Product
GRP	Gross Regional Product
GWh	Gigawatt hour
ICT	Information and communication technology
ISCED	International Standard Classification of Education
ISO	International Organization for Standardization
ITQ	Individual Transferable Quotas
Ktoe	Kilotonnes of oil equivalent
LAU	Local Administrative Unit
LFS	Labour Force Survey
m	million
NACE	Statistical classification of economic activities in the European Community
NCD	Non-Communicable Diseases
NGA	Next Generation Access
NSI	National Statistical Insitute
NUTS	Nomenclature of Territorial Units for Statistic
OECD	Organisation for Economic Co-operation and Development
PPP	Purchasing Power Parity
R&D	Research & Development
RIS	Regional Innovation Scoreboard
SCB	Statistics Sweden
SDG	Sustainable Development Goals
SPI	Social Progress Index
TWh	Terawatt hour
UN	United Nations
USD	United States dollar
WWF	World Wildlife Fund

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Preface

A LOOK BEHIND THE SCENES OF THE NORDIC MODEL

The Nordic Region as such comprises the 12th largest economy in the world, with a population that is growing faster than the EU average, a labour market that receives global praise and a welfare system that has proved resilient both in times of boom and bust.

But the countries of Denmark, Finland, Iceland, Norway and Sweden along with Greenland, the Faroe Islands and Åland also make out a macro-region of very different internal regions, both geographically and administratively.

It is an area spanning from the endless acres of farmland in Denmark and the vast forests in Sweden, over the thousand lakes of Finland and the mythical fjords of Norway to the Arctic splendour of Iceland and Greenland. Indeed, even the island communities of the Faroe Islands and Åland have their own characteristics, both when it comes to nature and culture, economy and population.

The Nordics often are at the top of the list when the UN or other international bodies rank nations on various parameters. And despite some bumps on the road, we are also rated as some of the most suited to fulfill the aim of the 2030 Agenda to reach the UN Sustainable Development Goals.

In fact, a recent publication from the Nordic Council of Ministers point to the almost unlikely success of the Nordic region in a global perspective. But what is the picture behind the national figures and how do the various regions within the Nordic countries interact, both internally and across borders?

That question is addressed by this publication, the State of the Nordic Region 2018 that gives a unique look behind the scenes of the world's most integrated region.

The Nordic Council of Ministers has contributed with Nordic statistics for more than 50 years through e.g. the Nordic Statistical Yearbook, and Nordregio – our research institution for regional development and planning – has published regional statistics since its establishment in 1997.

Now we are gearing up even more with a newly established Analytical and Statistical Unit at the Nordic Council of Ministers. In the same spirit, two other Nordic actors – the Nordic Welfare Centre and Nordic Agency for Cultural Policy Analysis – have contributed along with Nordregio to the current edition of the State of the Nordic Region, which is now published as a joint venture for the entire Nordic Council of Ministers' network.

By mapping and documenting information about the state of the Nordic region(s), Nordregio provides a very important knowledge base that empowers local, regional and national authorities in the Nordic countries to make informed decisions. Solid documentation of development trends is a necessary starting point for developing good policy.

At the same time, the State of the Nordic Region 2018 is also a treasure trove of information for the Nordic population at large, as well as a must read for international actors who want to learn about the Nordics and maybe even get inspired by the Nordic model, however differently it may be played out in the various regions and areas.

I hope the many interesting facts, figures and stories embodied in this impressive work will find a large audience and reach high and wide, just as the Nordic countries themselves seem to be doing.

Dagfinn Høybråten
The Secretary General,
Nordic Council of Ministers





INTRODUCTION

Chapter 1

INTRODUCTION

Author: Kjell Nilsson

Map and data: Julien Grunfelder

Background

Since 1981, Nordregio and its predecessor organisations have produced the report *State of the Nordic Region*. The report is published every two years, describing ongoing developments over time in the Nordic Region at the municipal and regional levels. This report is the 15th volume in the series "Regional Development in the Nordic countries", which has supplied policymakers and practitioners with comprehensive data and analyses on Nordic regional development for many years.

The report is based on the latest statistics on demographic change, labour markets, education, economic development, etc. The analyses are based on a broad range of indicators covering the above-mentioned areas. Since 2016, *State of the Nordic Region* has also included a Regional Development Potential Index which highlights the strengths and weaknesses of the 74 Nordic regions in relation to one another and identifies the regions with the strongest development potentials. The maps contained within the report can also be accessed through Nordregio's online map gallery, and NordMap, an interactive map tool dealing with demographic, labour market and accessibility issues in the Nordic countries.

From 2018, publication of *State of the Nordic Region* has been directly overseen by the Nordic Council of Ministers centrally. The ambition here is to make the report a flagship project for the Nordic Council of Ministers, enhancing its analytical capacity and its ability to collaborate across sectors and institutions. *State of the Nordic Region* strengthens Nordic identity and community. It is deeply illustrative thanks to its rich map material and is therefore suitable for the international marketing of the Nordic Region. Thanks to the Nordic Region's strong performance in international comparisons it can

also contribute to the strengthening of Nordic influence and competitiveness within Europe as well as globally.

Given its focus on scale, *State of the Nordic Region* builds on the collection and use of Nordic statistics at the local and regional levels. The advantage of following an administrative division is that it coincides with political responsibilities and thus becomes more relevant to politicians and other decision-makers for whom access to comparable and reliable statistical information is vital. The report itself should not however be viewed as being politically guided or seen as containing political pointers or recommendations. Maintaining integrity and independence is important for the credibility and, ultimately, for how the *State of the Nordic Region* is received and used. When the inclusion of an international benchmarking approach makes sense, the Nordic-focused material is supplemented with statistics and maps addressing the pan-European level.

The concept of *State of the Nordic Region* can be both scaled up and down. An example of the former is the ESPON BSR-TeMo project (2014) and its follow-up TeMoRi (Rispling & Grunfelder, 2016), con-

The Nordic Region consists of Denmark, Finland, Iceland, Norway and Sweden as well as Faroe Islands and Greenland (both part of the Kingdom of Denmark) and Åland (part of the Republic of Finland)

ducted by Nordregio on behalf of the Swedish Agency for Economic and Regional Growth, with both projects focusing on the development of a territorial monitoring approach for the Baltic Sea Region (ESPON, 2014; Rispling & Grunfelder, 2016). Examples of scaling down include various assignments that Nordregio has implemented for individual regions such as Jämtland, Värmland, and Lappi. The potentials for extending the implementation of *State of the Nordic Region* are therefore immense if awareness increases due to its broader launch profile.

The regional approach

What is the Nordic Region?

The Nordic Region consists of Denmark, Finland, Iceland, Norway and Sweden as well as Faroe Islands and Greenland (both part of the Kingdom of Denmark) and Åland (part of the Republic of Finland). *State of the Nordic Region* is based on a suite of statistics covering all Nordic municipalities and administrative regions. It is however worth noting here that several Nordic territories, e.g. Svalbard (Norway), Christiansø (Denmark) and Northeast Greenland National Park (*Avannaarsuani Tunumilu Nuna Allannngutsaaliugaq*), are not part of the national administrative systems. Nevertheless, though not strictly included in the administrative systems, these territories are included in the report where data is available.

State of the Nordic Region displays data using national, regional and municipal administrative divisions (this edition according to the 2017 boundaries). Large differences exist both in terms of the size and population of the various administrative units at the regional and municipal levels across the Nordic Region. The four largest municipalities are all Greenlandic, with Qaasuitsup being the world's largest municipality with its 660,000 km² (however, split into two municipalities in 2018). Even the smallest Greenlandic municipality, Kujalleq, at 32,000 km² significantly exceeds the largest Nordic municipalities outside Greenland, i.e. Kiruna and Jokkmokk in northern Sweden with approximately 20,000 km² each. Excluding Greenland and the Faroe Islands, the average size of a Nordic municipality is 1,065 km². The smallest are less than 10 km² and are either insular municipalities (e.g. Kvitsøy in Norway or Seltjarnarnes near Reykjavík) or within the greater capital areas (e.g. Sundbyberg near Stockholm, Frederiksberg surrounded by the municipality of Copenhagen, or Kauniainen surrounded by the municipality of Espoo near Helsinki).

The average area of a Nordic region is 17,548 km². The smallest is Oslo (455 km²), followed by two Icelandic regions, Suðurnes (884 km²) and Hövuðborgarsvæði (1,106 km²). The largest region is Norrbotten in Northern Sweden (106,211 km²), followed by Lappi in Northern Finland (just under 100,000 km²). The average population density of a Nordic region is 66 inhabitants per km² with densities ranging from 1 inhab./km² (Austurland, Vestfirðir, Norðurland vestra, and Norðurland eystra – all in Iceland) to 1,469 inhab./km² (Oslo region). Other high-density regions include the Capital region of Denmark Hovedstaden (706 inhab./km²) and Stockholm (335 inhab./km²).

Among the Nordic countries Denmark, Finland (including Åland) and Sweden, are Member States of the European Union (EU), although only Finland is part of the Eurozone. Iceland and Norway are members of EFTA (European Free Trade Association) consisting of four countries, which either through EFTA, or bilaterally, have agreements with the EU to participate in its Internal Market. The Faroe Islands and Greenland are not members of any of these economic cooperation organisations. These differences in supra-national affiliation have an impact on which data that is available for this report. For example, Eurostat, the statistical office of the EU, only provides data for EU, EFTA and EU candidate states, thus excluding the Faroe Islands and Greenland. Whenever possible, data for these regions has been supplemented from other sources.

In the regular register data of Eurostat and the National Statistics Institutes (NSIs), which are the two prime data sources for this report, commuters to neighbouring countries are not included in the Nordic countries. This results in incomplete information (i.e. underestimations) regarding employment, incomes and salaries for regions and municipalities located close to national borders, where a substantial share of the population commutes for work to the neighbouring country. Estimates have been produced in some cases and included in this report. In 2016, the Finnish presidency of the Nordic Council of Ministers launched a project to develop statistics on cross-border movement in the Nordic countries. There is however still no up-to-date and no harmonised Nordic cross-border statistical data available, other than that provided by some regional authorities.

Regional and administrative reforms

Administrative reforms provide a series of seemingly never-ending stories across the Nordic politi-

cal systems. Today, the need for reforms and for the reallocation of tasks between the national, regional and municipal levels can be derived from two major challenges facing the Nordic countries (Harbo, 2015). Firstly, increased pressure on the Nordic welfare system caused by an ageing population which increases demand for public services while simultaneously shrinking the tax base. Secondly, enlargement of the regions due to widening labour markets caused by changing mobility and commuting patterns moves the functional borders of regions beyond their traditional administrative limitations. Finally, there is a common belief among professionals and decision makers that fewer and larger units are more efficient when it comes to service provision and public administration. On the other hand, concerns remain over the merging of administrative units especially at the municipal level due to the increased distance this potentially creates between citizens and the local political authority.

Thus far, the Danish experience provides the best Nordic example of a completed reform process as it is now a decade since the process took place and where the number of municipalities was reduced from 270 to 98. The reform as such was decided by the government, but the practical implementation, i.e. which municipalities should merge, was delegated to the municipalities themselves. At the same time, 1 January 2007, the 13 counties (*amt*) were abolished and replaced by five regions. The reform increased the political weight of the municipalities in society while the importance of the regions decreased. The regions are led by elected politicians, which reinforces their legitimacy, but they lack the power to tax and the freedom to undertake tasks in addition to their statutory responsibilities. In addition to healthcare, which is the region's main area of work, they are participating in regional public transport companies and in the setting up of growth forums (which decide on the allocation of EU Structural Funds). Hence, there are no official regional development plans except for the capital region, the so-called Finger Plan, which is prepared by the state.

After having failed, for the second time since the turn of the millennium, to try to implement a major reform of the Finnish municipalities, the government decided on 19 August 2015 that the municipalities would no longer be required to investigate the possibility of amalgamation (Sandberg, 2015). The government still wants to encourage municipal mergers, but they should be done on an entirely voluntary basis. Since 2000, the number of municipal-

ities has voluntarily decreased from 452 to 311, but the size of Finnish municipalities is still on average below 7,000 inhabitants. After failing with their municipal reform, the government decided instead to turn its attention to the regional level and to plan for a comprehensive expansion of the regions' responsibilities. The plan is for the 18 regions (*maakuntaliitto – landskapsförbund*) to take over the main health care system from the municipalities. They will also assume responsibility for regional development, e.g. business and transport policy. The regions will have a directly elected political leadership, but the right to tax will remain with the municipalities which will, however, lose more than half of their budget (Sandberg, 2017).

Åland is not included in the above-mentioned administrative reform of the Finnish regions. There, responsibility for health care is already centralised to the Government of Åland. Åland has 16 municipalities, some of them with less than 500 inhabitants and one, Sottunga municipality, with even less than 100. At the same time as several investigations into voluntary municipal mergers are in progress, the current government is also preparing a bill to be introduced to the Åland Parliament, the *Lagtinget*, on reducing the number of municipalities to four.

More than 50 years since the last municipal reform, on 8 June 2017, the Norwegian parliament (Stortinget) decided on an administrative reform that reduces the number of regions (*fylkeskommuner*) from 18 to 11 and the number of municipalities from 428 to 354. The basic goal of the reform, which should be fully implemented by 1 January 2020, is to transfer resources and responsibilities to local and regional authorities that are more robust than they are currently (Kaldager, 2015). In Norway, the health care system is organised by the state, while the regions are, among other things, responsi-

Concerns remain over the merging of administrative units especially at the municipal level due to the increased distance this potentially creates between citizens and the local political authority

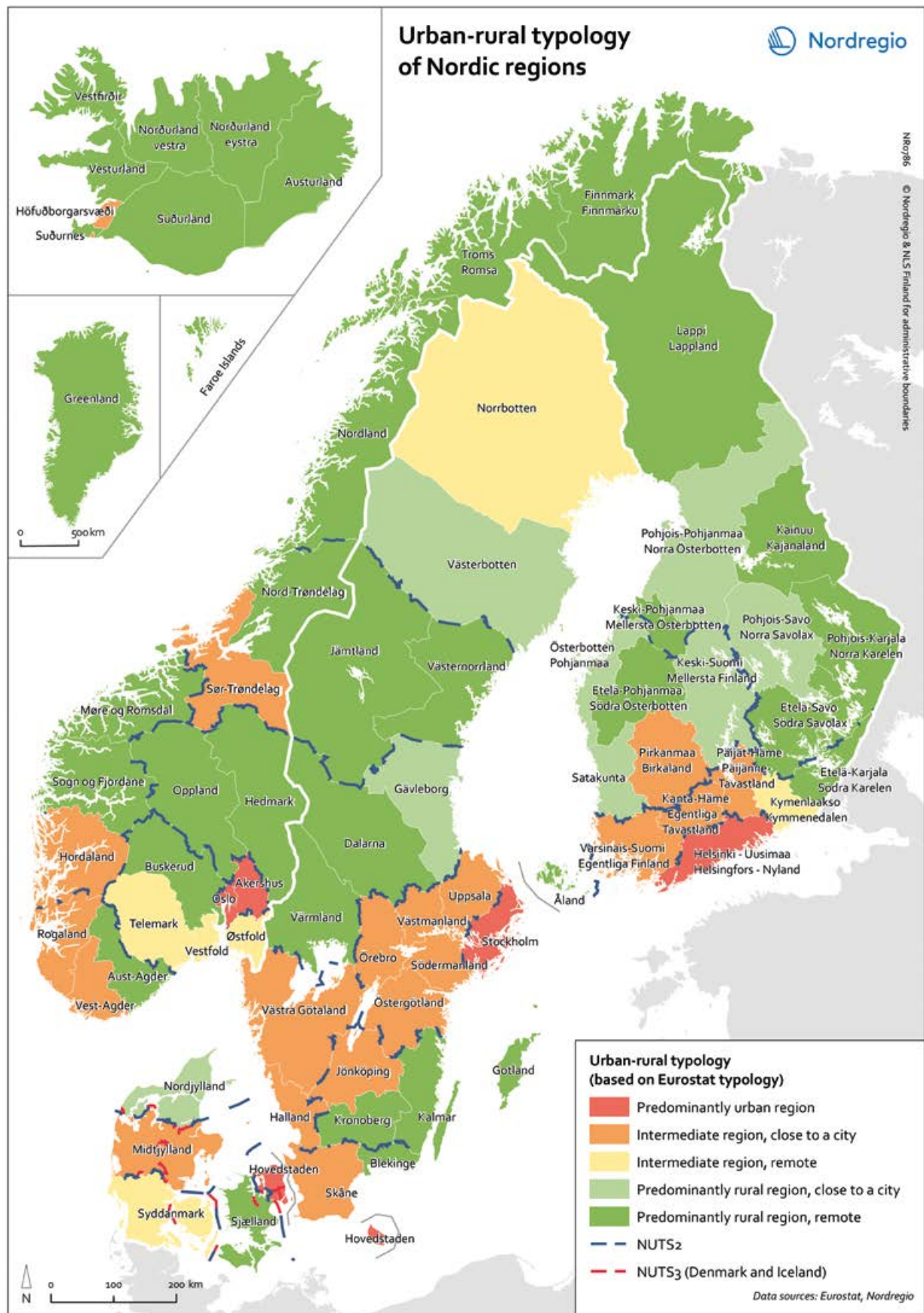


Figure 1.1 Urban rural typology of the Nordic regions.

The combined economy of the Nordic countries is the 12th largest in the world

ble for planning, transportation and regional development. The reform is based on the tasks that the regions currently have, but the government has appointed an expert group to review opportunities to strengthen the regions' role as developer and their capacity to provide better service to the citizens. The regions are led by directly elected politicians, they have a formal – but in practice no – right to tax and they are free to undertake other than statutory tasks.

In Sweden, the last municipal reform took place in 1974 when the number was reduced from slightly more than 1,000 to 278. The latest merger of Swedish municipalities took place in 1977. In the period since, the number has slightly increased to 290 due to the dissipation of existing municipalities. Instead of pushing further municipal mergers, the Swedish government has instead focused on the regions in recent years. In March 2016, a committee presented a new map dividing Sweden into six new major regions. The map raised such strong opposition however that the government chose not to proceed with the proposal. When the map turned out to be a distortion of reality, instead of adjusting the map at regional level, the government decided to change the reality at local level. Thus, a new parliamentary committee was set up to develop a strategy for strengthening the municipalities' capacity, focusing more on cooperation and the allocation and execution of tasks than on administrative boundaries.

In common with the Faroe Islands and Greenland, Iceland has only two administrative levels: national and local. In recent times, Iceland has carried through two large reform processes – in 1993 and again in 2005. On both occasions, consultative referendums were held and on both occasions, a majority voted against the suggested mergers. Despite the outcomes of the referendums the reforms resulted in a reduction in the number of municipalities from 196 in 1993 to 89 in 2006. In recent years, the number of municipalities has been further reduced to 74 on a voluntary basis though the government has, for its part, decided not to push for further aggregations. Instead, the idea of interregional municipal cooper-

ation has been put on the agenda (Traustadóttir, 2015). This idea is aimed at strengthening the local level through the decentralisation of tasks from the government, but without the merging of municipalities.

The Faroe Islands and Greenland both sought to reduce the number of municipalities through administrative reform processes. The Faroese reform process started in 2000 with a new piece of municipal legislation. The government wanted to encourage municipal mergers, but they should be done on an entirely voluntary basis. Since 2000, the number of municipalities has voluntarily decreased from 49 to 29. In a 2012 referendum on municipal mergers, the majority in almost every municipality said no to more mergers.

By far the most radical change took place in Greenland in 2009, where the administrative set up changed from 18 to four municipalities. The idea behind the change which was supported by most of the political parties, was to delegate political decisions and economic resources from the central administration to the municipalities (Hansen, 2015). In reality, only a few administrative areas have at least thus far been transferred, but major areas will be transferred to the municipalities in 2018 and 2019. Widespread dissatisfaction with the new municipal structure especially in Qaasuitsup Kommunia, the largest municipality in the world in terms of square kilometres, led to a political decision to divide Qaasuitsup Kommunia into two municipalities by 1 January 2018.

NUTS classification

Table 1.1 provides an overview of the administrative structure in each country in the Nordic Region. These administrative structures are the basis for the NUTS (Nomenclature of territorial units for statistics) classification, a hierarchical system dividing the states on the European continent into statistical units for research purposes. The NUTS and LAU (Local administrative units) classifications generally follow the existing division but this may differ from country to country. For example, municipalities are classified as LAU 1 in Denmark but as LAU 2 in the other Nordic countries, and regions of primary importance within the national context as NUTS 2 in Denmark but as NUTS 3 in Finland, Norway and Sweden (figure 1.1).

	NUTS 0	DK	FI	IS	NO	SE	SNUTS	FO	GL
Regional	NUTS 1		Manner-Suomi/ Fasta Finland; Ahvenanmaa/ Åland 2			Landsdel 3	SNUTS 1		
	NUTS 2	Region 5	Suurlue; Storområde 5		Landsdel 7	Riksområde 8	SNUTS 2		
	NUTS 3	Landsdel 11	Maakunta; Landskap 19	Hag-skýrslu-svæði 2	Fylke 19 (18)	Län 21	SNUTS 3		
Local	LAU 1	Kommune 98		Landsvæði 8	Økonomisk region 89		SNUTS 4	Sýsla 6	
	LAU 2	Sogn 2165	Kunta; Kommun 311	Sveitarfélög 74	Kommune 426 (422)	Kommune 290	SNUTS 5	Kommune 30	Kommune 4 (5)

Table 1.1 Administrative structures in the Nordic Region on 1 January 2017 (diverging number on 1 January 2018 in brackets).

¹ Grey frames represent the regional levels presented in most regional maps in this report, comparable from a Nordic perspective, while dark gray frames show the local units represented in the majority of our municipal level maps.

Data sources: NSIs, Eurostat, ESPON.

The Nordics in the world

With its 3,425,804 km², the total area of the Nordic Region would form the 7th largest nation in the world. However, uninhabitable icecaps and glaciers comprise about half of this area, mostly in Greenland. In January 2017, the Region had a population of around 27 million people. More relevant is the fact that put together, the Nordic economy is the 12th largest economy in the world (Haagensen et al., 2017).

The power of the Nordic economy was acknowledged in the light of its general handling of the economic crisis of 2007–08 (Wooldridge, 2013). What particularly impressed e.g. the journalists at the magazine *The Economist*, that published a special edition on the Nordics, was the ability of the Nordic countries to combine a generous tax-funded welfare system with efficient public administration and a competitive business sector.

As such, the locational aspects of the Nordic Region are noted in this edition of the State of the Nordic Region, where relevant and when reliable data is available. In addition, European developments generally and specifically those pertaining to the EU level are also addressed.

EU 2020 targets

The Europe 2020 strategy was designed in 2010 with the aim of guiding the Member States through the global financial crisis towards recovery. Three drivers of economic growth were identified as crucial: (i) smart growth based on knowledge and innovation, (ii) sustainable growth for a more efficient, greener and competitive economy, and (iii) inclusive growth capable of delivering employment, social and territorial cohesion.

Targets to be achieved include increasing the employment rate of the population aged 20–64 from 69% to 75%, investing at least 3% of the EU's GDP on research and development, reducing greenhouse gas emissions by 20% compared to 1990, increasing the share of renewable energy sources in final energy consumption to 20%, reducing the proportion of early school leavers from 15% to below 10%, ensuring that at least 40% of 30–34 years old

The total area of the Nordic Region would form the 7th largest nation the world

Figure 1.2 Sustainable Development Goals.



should have completed tertiary or equivalent education and, finally, reducing poverty by lifting at least 20 million people out of the risk of poverty or social exclusion.

The European Commission expected that each Member State would translate these targets into national targets and trajectories. According to Eurostat's headline indicators scoreboard only one target, i.e. the reduction of greenhouse gas emissions, has thus far been reached. Two targets, those regarding early school leavers and tertiary educational attainment, are less than one percentage unit from fulfilment. The target on reduced poverty is also close to being attained, in 2015 18.5 million people have been lifted out of poverty since 2012. The employment rate had risen to 71% in 2016, but is still less than half way to the target while the R&D investments are even further away from their specified target.

UN Sustainable Development Goals

On 25 September 2015, the United Nations adopted Resolution A/RES/70/1 which contains 17 Sustainable Development Goals (SDGs) with 169 targets to be achieved over the next 15 years. The 17 goals (figure 1.2) are:

1. End poverty in all its forms everywhere;
2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture;
3. Ensure healthy lives and promote well-being for all at all ages;

4. Ensure inclusive and quality education for all and promote lifelong learning;
5. Achieve gender equality and empower all women and girls;
6. Ensure access to water and sanitation for all;
7. Ensure access to affordable, reliable, sustainable and modern energy for all;
8. Promote inclusive and sustainable economic growth, employment and decent work for all;
9. Build resilient infrastructure, promote sustainable industrialization and foster innovation;
10. Reduce inequality within and among countries;
11. Make cities inclusive, safe, resilient and sustainable;
12. Ensure sustainable consumption and production patterns;
13. Take urgent action to combat climate change and its impacts;
14. Conserve and sustainably use the oceans, seas and marine resources;
15. Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss;
16. Promote just, peaceful and inclusive societies;
17. Revitalize the global partnership for a sustainable development.

The Nordic countries are performing well. In an overall assessment of OECD countries, Sweden is given the highest score followed by Denmark, Finland and Norway (Sachs et al., 2017). Nevertheless, the Nordic countries continue to face significant

challenges in terms of reaching all the identified targets by 2030. The Nordic Council of Ministers has chosen goal number 12, to "ensure sustainable consumption and production patterns", as its prioritised action field. But there are additional goals where a certain amount of effort is still required, such as the greening of the region's agricultural systems (SDG 2), reducing the high levels of CO2 emissions per capita (SDG 7 and 13, and improving ecosystem conservation (SDG 14 and 15) (Larsen & Alslund-Lanthén, 2017).

Further reading

The report consists of two parts; the first, consisting of three thematic areas which have remained constant over the years of this publication (demography, labour market and economy) and are summarised in the *Regional Development Potential Index* (chapter 15).

Demography (chapters 2–4): Describes and analyses population development in terms of natural increase or decline, migration, urbanisation and age distribution.

Labour market (chapters 5–7). Describes and analyses employment, unemployment and economically-inactive groups, especially among young people and foreign born, as well as education.

Economy (chapters 8–10): Describes and analyses GDP, income levels, innovation capacity, research and development and foreign direct investment (FDI).

The second part consists of four thematic focus areas. The chosen areas for the 2018 edition are:

Bioeconomy (chapter 11): Focuses on land use and land ownership, forestry, biogas, fisheries and aquaculture.

Digitalisation (chapter 12): Focuses on the broadband coverage and use of Internet to interact with the public sector.

Health and welfare (chapter 13): Focuses on public health issues and the territorial dimensions of life expectancy and accessibility to healthcare.

Culture and arts (chapter 14): Focuses on newly-produced data at municipal and regional levels on cinemas, libraries and museums.

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THEME 2

LABOUR FORCE

A thriving, but partly segregated labour market

The Nordic Region has recovered strongly from the financial crisis. Sweden boasts the highest employment rate in the EU while Iceland has the highest rate in Europe. High employment rates for women in particular stand out and remains a basic feature of Nordic labour markets. Finland however provides an exception here. All Nordic countries have experienced a relative decline of the labour force between 2007 and 2017, and Finland have even had a decline in absolute numbers also.

Unemployment nevertheless remains low while in certain sectors it is difficult for employers to find people with the right competences. The share of the population with a tertiary education is however increasing across, suggesting that the Nordic Region is in a strong position to meet the needs of the labour market of the future.

Unemployment rates, especially for younger people, are highest in old industrial towns and some sparsely populated areas. In general, jobs tend to move from rural to urban areas

and many municipalities are not as resilient to change as the general Nordic trend would indicate. Rural populations are also less likely to have higher education than their urban counterparts. Finland and Sweden still have a relatively high level of youth unemployment but overall, the Nordics fare better than the rest of Europe in this regard.

The Nordic model, with its high levels of unionisation, compressed wage structures and low share of unskilled jobs makes integration into the labour market challenging for newly arrived immigrants. Integration challenges are also reflected in school performance, with gaps between the scores of native-born students and those of first and second-generation students larger than the OECD average in all Nordic countries.

All in all, the labour market in the Nordic Region is doing well but in a continually changing economic landscape, significant challenges remain.

Chapter 5

EMPLOYMENT

Labour force participation and productivity of Nordic labour markets

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Maps and data: Gustaf Norlén and Julien Grunfelder

A well-functioning labour market with a high participation rate is a top priority for any country, region or municipality. To work means to be involved in the production of goods and services making the labour market a vital component of the economy. For both the state and local governments, the taxation of labour is often a major source of income. Employment is also seen as important from a social perspective since it provides individuals and families with an income while exclusion from the labour market is often associated with the risk of poverty and social exclusion. In the context of the EU2020 strategy, the employment rate is thus viewed as a primary social indicator, while in the UN2030 agenda for sustainable development one of the primary goals is to promote full and productive employment and decent work for all.

This chapter will explore the labour market in the Nordic Region, first looking at the employment rate from different perspectives – in comparison to the rest of Europe with a focus on the recovery from the financial crisis, on the Nordic municipal level and looking specifically at the employment rate by gender and country of birth. The second part of this chapter looks at employment by sector and the third at the productivity of the labour market. This is followed by a brief conclusion section and a glance towards the future.

It took until 2016 for the average European employment rate to reach and then surpass pre-crisis levels

Slow but steady recovery from financial crisis

Since the labour market is closely connected to the economy, the last ten years have been marked by the effects of the financial crisis that began in 2008 and by slow recovery thereafter. The labour market has a lagging relation to the economy meaning that both the effect of, and the recovery from, major economic crises only manifest themselves later in the economic cycle. The lagging relation can, in part, be explained by institutional arrangements such as contracts and resignation periods. Companies generally prefer to downsize through retirements and the non-renewal of temporary contracts. A financial crisis also leads to slower job growth which makes it particularly hard for new groups like young people and immigrants to enter the labour market (OECD, 2016).

Given the nature of the global economy and the fact that many countries are dependent on exports, most labour markets were affected by the financial crisis. Though some countries and regions were more affected than others. On a European scale, the effect of the financial crisis on employment be-

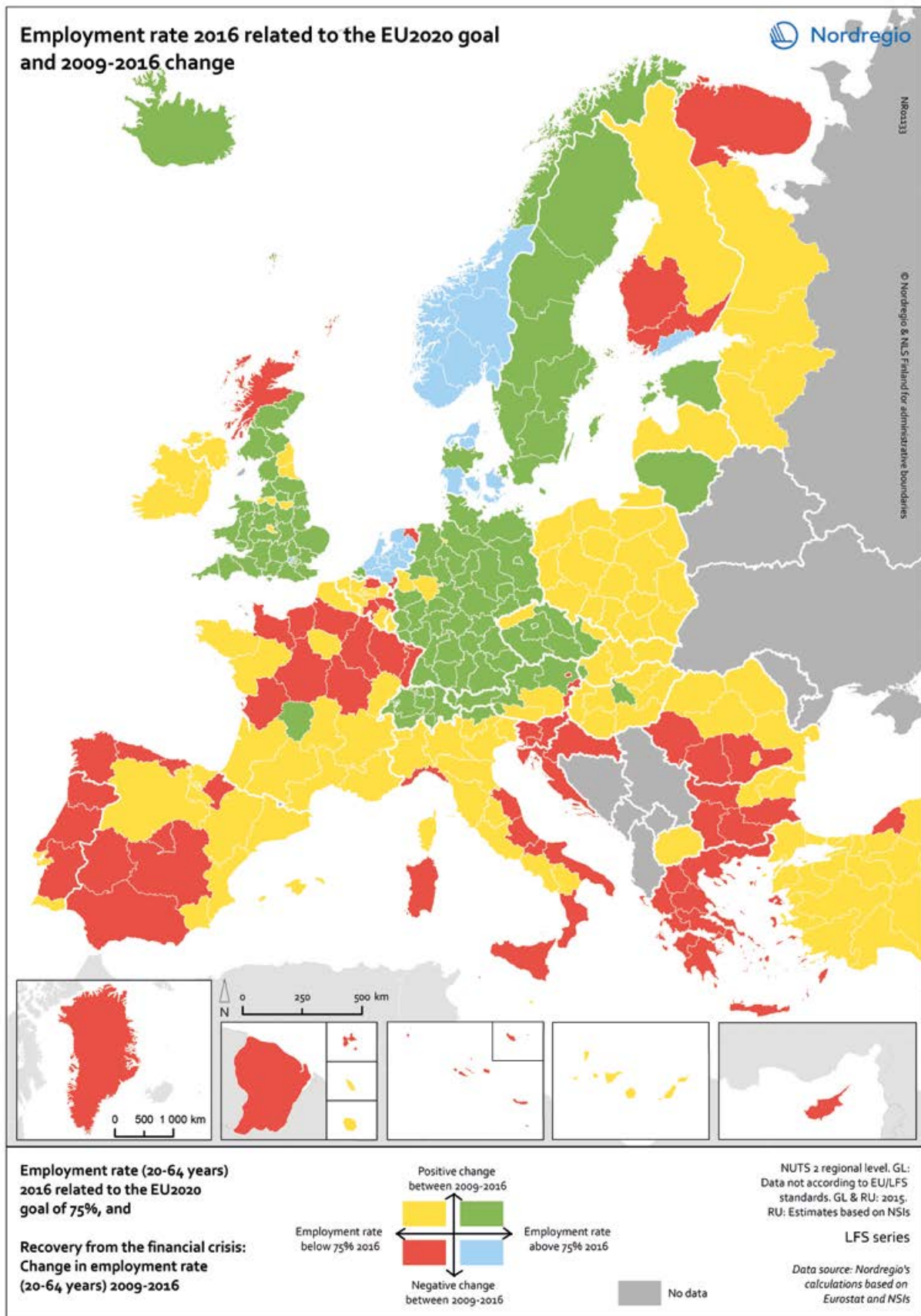


Figure 5.1 Employment recovery from the financial crisis. Employment rate (20–64 years) 2016 related to the EU2020 goal and 2009–2016 change.

34% of the total Nordic labour force work in the capital city labour markets while a further 20% work in those associated with second-tier cities

came noticeable from 2009 onwards when average employment rates started to decline. This continued until 2013 when the average European employment rate reached its lowest level of 68.3% for the age group 20–64 years. After 2013 the employment rate started to rise again but it took until 2016 for the average European employment rate to reach and then surpass pre-crisis levels. In 2016 the average employment rate in the European union was 71%, edging closer to the EU2020 goal of 75%.

Figure 5.1 shows the state of the recovery from the financial crisis as well as those regions that have already attained the EU2020 goal of a 75% employment rate. In some regions, primarily in southern Europe, employment rates have still to recover to pre-crisis levels. This is particularly so for Greece, Spain, Italy and Portugal which were particularly hard hit by the debt crisis and thus had to undertake massive cuts across the public sector. On the other hand, some countries such as Germany, Austria and Switzerland saw rising employment rates even during the financial crisis. The differential nature of outcomes in respect of the financial crisis suggest that some regions are less resilient to economic shocks than others. It is clearly easier for labour markets with a highly skilled and flexible labour force, a diversified economy and strong institutions to cope with shocks (ESPON, 2014). The regions that were hit hardest also had to endure brain drain and out-migration to areas that retained well-functioning labour markets, although labour mobility in Europe remains lower than other integrated economic areas such as the USA (Arpaia et al., 2016).

Although the Nordic Region was also affected by the financial crisis, seeing an employment decrease and an unemployment increase, the Region as a whole has recovered well. In 2016, Sweden had the highest employment rate in the European Union at 81.2%, measured for the population, 20–64 years. The highest employment rates in all of Europe (over 85%) can otherwise be found in Iceland, the Faroe

Islands and Åland. Mainland Finland has experienced weaker employment growth than the rest of the Nordic Region and the NUTS2 regions of Länsi-Suomi, Etelä-Suomi and Pohjois- ja Itä-Suomi were the only Nordic regions not to attain the 75% employment rate EU2020 goal, in 2016. As can be seen from figure 5.1, the southern part of Norway has experienced an employment rate reduction in recent years. This is mainly due to falling oil prices though, notwithstanding this, with an employment rate of 78.6% Norway remains well above the EU average.

Slower job growth in Finland

Although the Nordic Region made a strong recovery from the financial crisis and retains high employment rates seen in a European context, substantial differences remain both at the national and municipal levels. Figure 5.2 shows the employment rate for all Nordic municipalities, calculated as the total number of employed persons as a share of the working age population (15–64 years). The highest employment rates in the Nordic Region can be found in Iceland, the Faroe Islands, Åland and smaller municipalities in Norway. All municipalities in the Faroe Islands and Iceland had employment rates over 85%. Iceland has made a strong recovery from the financial crisis and currently enjoys strong economic growth such that it is hard for employers to find the right labour, especially in the construction and tourism sectors (EURES, 2017). Employment rates of over 85% can also be found in several municipalities in Sweden, including municipalities in the main labour market regions of Stockholm (Ekerö, Täby and Värmdö); Gothenburg (Kungälv, Lerum and Stenungsund) and Malmö-Lund (Lomma and Ystad). In Denmark, the highest employment rate was found in the capital region, where three municipalities (Allerød, Egedal and Dragør) all had employment rates higher than 85% in 2016.

The most striking thing about Sweden is otherwise that there are few municipalities with low employment rates. After adjusting for cross-border commuting there were only four municipalities in Sweden with employment rates under 70%. The high employment rate in Sweden can, in part, be explained by high GDP growth in recent years. Sweden has also promoted active labour market measures in the hope of getting more people into employ-

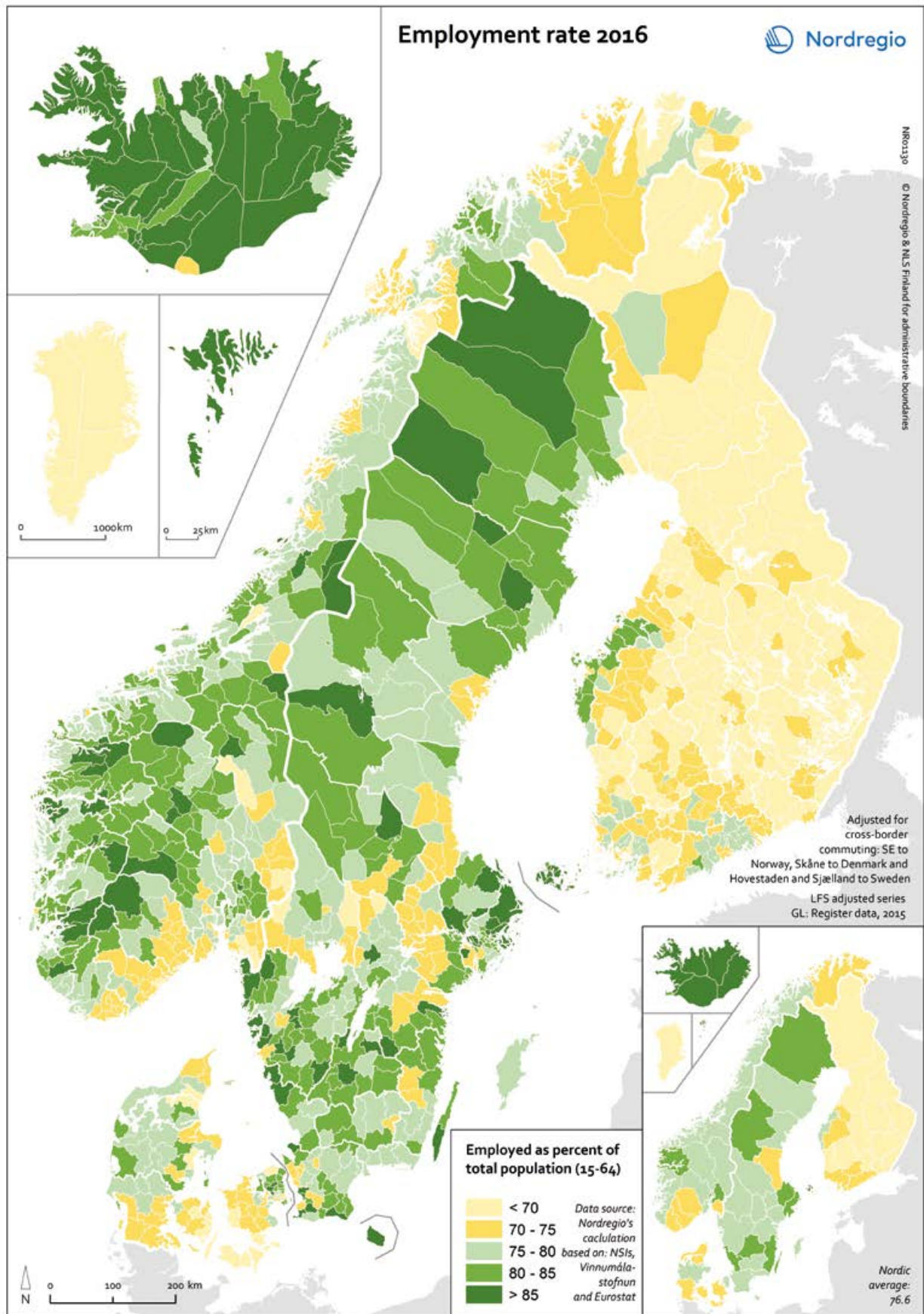


Figure 5.2 Employment rate 2016.

ment, focusing on those who were previously outside the labour force (i.e. those who were neither in employment nor looking for work). This has led both to a higher employment rate, but also to a higher unemployment rate than that in Norway and Denmark, as more people have gone from being economically inactive to being categorised as unemployed.

Mainland Finland (with the exception of Österbotten), Greenland and southern Sjælland in Denmark stand out here, displaying lower employment rates than the rest of the Nordic Region. The downturn in the Finnish employment rate occurred before the financial crisis began and can be explained by various factors such as, for example, a reduction in trade with Russia, lay-offs in major companies such as Nokia (which also affects the clusters around them) and automation in the forest industry. However, the Finnish employment rate increased in 2016 and although there are 83,000 persons less in employment in 2016 than in 2008, this trend of fewer jobs was reversed in 2016. Finland is also the Nordic country with the lowest share of part-time workers, at 15%, compared to over 20% for the other Nordic countries (Nordic Statistics, 2017a).

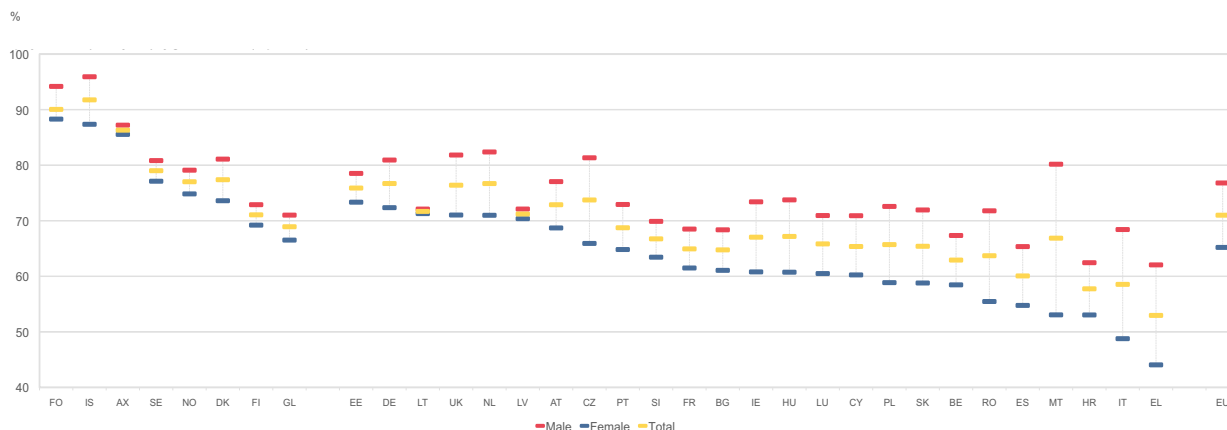
Although there are several rural municipalities with high employment rates, the majority of jobs in the Nordic Region are concentrated to the largest labour market regions. 34% of the total Nordic labour force work in the capital city labour markets while a further 20% work in those associated with second-tier cities. The trend also suggests that the bigger cities are growing at the expense of the rural

areas. Since 2008, the number of employees in the various capital region labour markets have grown by more than 265,000 jobs, with the second-tier cities seeing a growth of 85,000 while almost 67,000 jobs were lost in the small towns and rural areas. Such developments follow a long trend in relation to urbanisation and highlight the challenges associated with retaining jobs and services in ageing and depopulated rural areas. It is in the capitals and the second-tier cities that bigger companies can be located and where the demand for highly skilled labour is greatest. The major labour market regions are currently suffering from a serious undersupply of labour in some sectors and are often unable to fill all available vacancies. If these vacancies are not filled, this can lead to slower economic growth, rising wage costs and the need to compete for skilled foreign labour (Karlsson & Skånberg, 2012). The challenge is therefore to match the unemployed with the jobs that are available.

Female employment rates comparatively high in the Nordic Region

The high employment rates in the Nordic Region can, in part, be explained by the fact that the female employment rate, as well as the old-age employment rate (55–64 years), are comparatively high (Eurostat, 2017). The Nordic countries were early proponents of including women in the labour mar-

Figure 5.3 Employment rate (20–64 years) by gender in 2016.



Data source: Eurostat, except FO & GL: NSIs. GL: 2015.

ket and are characterised as having a large share of women in the labour force. This is a goal that was initially achieved through policies supporting generous maternity leave and affordable day care (Hall & Zoega, 2014).

As seen in figure 5.3, there are European countries with higher employment rates for males than the Nordic countries. The female employment rate is however highest in Iceland followed by Sweden, Norway and Denmark. Although the Nordic countries have high female employment rates the employment rate for males remains higher in all Nordic and EU countries. The smallest differences between male and female employment rates in 2016 were in the Baltic states of Lithuania and Latvia followed by the Nordic countries. That all countries have a higher share of male employment can be explained primarily by the fact that there are more men in the labour force. The unemployment rate is also higher for men in many countries.

Despite the high female employment rate in the Nordic Region it is worth noting that the share of part-time employment for women (except Finland) as well as the gender pay gap are on a par with the EU average. In 2015 the gender pay gap in Sweden (14%), Norway (14.9%) and Denmark (15.1%) was slightly below the EU average (16.3%), whereas Finland (17.3%) and Iceland (17.5%) were slightly above (Nordic statistics, 2017b). The share of part-time employment for women was higher than the EU average (32%) in all Nordic countries except Finland (20%) in 2016 (Nordic statistics, 2017a). Some of this part-time employment is voluntary, mainly due to family situation, but a substantial share is also involuntary part-time employment (or underemployment) – e.g. more than 40% in Sweden in 2011 (Drange & Egeland, 2014).

Utilising the labour potential of refugees remains a challenge

After the influx of asylum seekers to the Nordic countries in 2015 labour market discussions have subsequently focused on how to get those who are granted asylum into employment. Almost 150,000 persons were granted asylum in the Nordic countries in 2015 and 2016 and although the influx has decreased substantially there are still many more awaiting decisions.

Given the long waiting times associated with being granted asylum plus the time it takes thereaf-

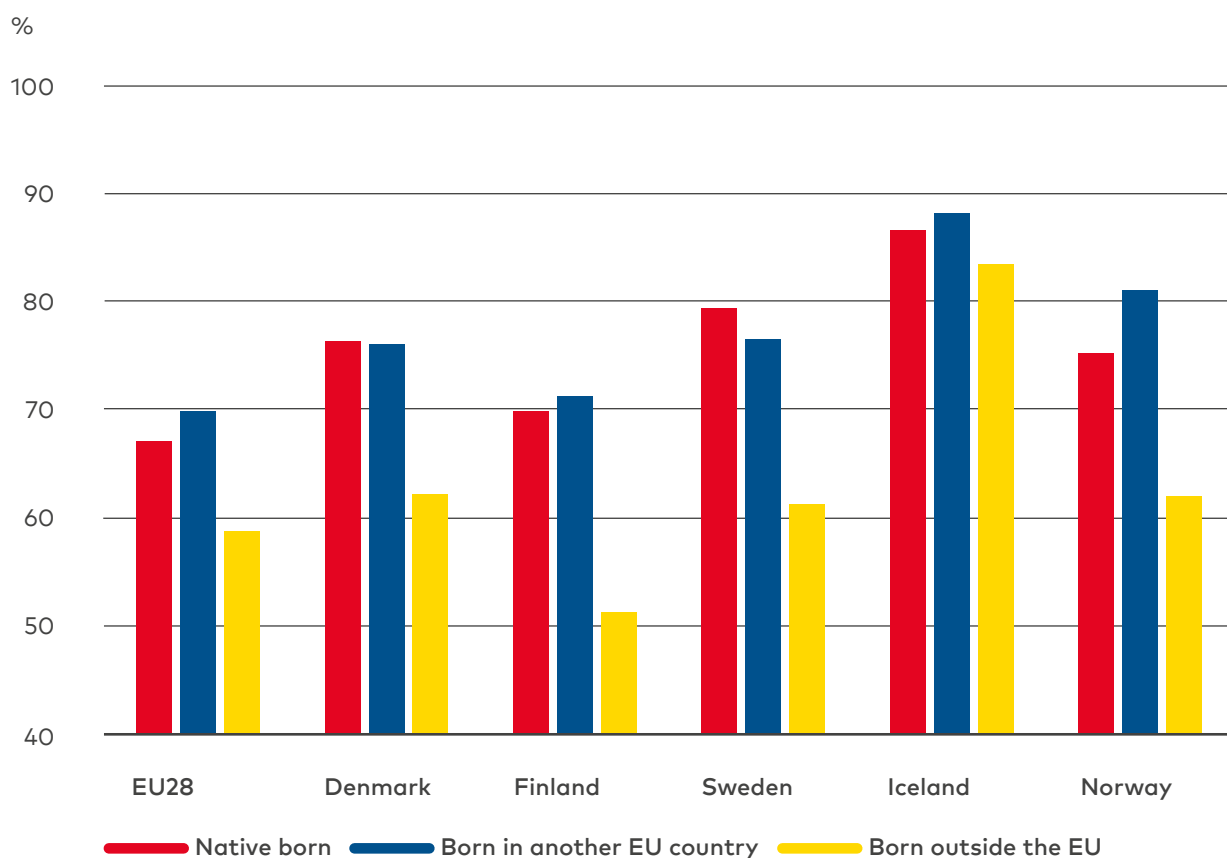
In Finland and Sweden there was a more than 20% difference in the employment rate between native born and those born outside the EU in 2016

ter to access the labour market (after language training, establishment programmes, etc.), it is still too early to evaluate how successful the policy of including those who immigrated in 2015 into the labour market has been. Looking at the employment rate by country of birth, it is clear, historically, that those who are born outside the EU have enjoyed substantially lower employment rates than native born or other EU nationals. This pattern is true for almost all the European countries and has been rather stable over the last ten years. The female employment rate is particularly low for females born outside the EU. In Finland and Sweden there was a more than 20% difference in the employment rate between native born and those born outside the EU in 2016 (figure 5.4).

As seen in figure 5.4, the employment rate for those who are born in other EU countries shows a different pattern. This group mainly consists of labour migrants which accounts for a large share of all immigrants, especially in Norway and Iceland (Damm & Åslund, 2017). In 2016 the employment rate for this group was even higher than for native born in Norway, Iceland and Finland.

Considering both the reality of labour shortages in many professions and the good demographic profile of the immigrants, the opportunity is there for the Nordic countries to help more people into employment. Refugees granted asylum are generally placed in municipalities which are widely spread across the countries and, providing that they stay, this means that services can often be retained and that rural depopulation is slowed. The factors identified as being important in the labour market integration of immigrants include: language training, quick validation of education for those with qualifications, getting the young into education or training and finding simple jobs for those who do not have any education or profession (Karlsdóttir et al., 2017). The last point can often present a significant challenge, since the Nordic countries do not have mini-

Figure 5.4 Employment rate (15–64 years) by country of birth 2016.



Data source: Eurostat.

num wage systems as salaries are negotiated through collective bargaining processes (Eldring & Alsos, 2015).

Employment characteristics of welfare states stand out

The Nordic Region has a modern economic structure where the shift in employment from the agriculture and goods producing sectors towards the service sector is well advanced. Compared to the EU average, the Nordic Region has a low share of employment in agriculture and industry. The exceptions here are the Faroe Islands and Greenland where the fisheries sector still constitutes a significant part of each economy. The share of employment in health and social work is significantly higher in the Nordic countries as compared to the EU average while the share of employment in education is also slightly higher, reflecting their ambitions in respect of the Nordic welfare state.

Figure 5.5 is based on a cluster analysis of employment per sector in the Nordic municipalities, showing how the employment structure of the municipalities relates to the Nordic average. Generally, the sparsely populated areas are dominated more by agriculture, smaller towns by industry and larger urban areas by business services. More specifically, agriculture, forestry and fisheries are overrepresented in several rural municipalities in Finland because of the forestry industry and along the Norwegian coast mainly because of fishing. Industry is overrepresented mainly in Swedish towns with a long tradition of both big and small-scale industries. The highest share of employment in industry (56%) was in the Swedish municipality of Gnosjö in Småland, known for its entrepreneurial environment often referred to as the "Gnosjö spirit".

Employment in the electricity and water supply sector is overrepresented in municipalities with large power plants, such as Östhammar, Oskarshamn and Varberg where the Swedish nuclear plants are located as well as in municipalities with

Industry	NORDIC	SE	NO	FI	DK	IS	FO	GL	EU
Agriculture, forestry and fishery	2.5	2.1	2.3	3.3	2.6	4.2	10.3	15.9	4.5
Industry and extraction of raw materials	11.5	11.9	10.1	13.2	10.8	10.3	12.1	1.4	15.8
Electricity and water supply	1.0	1.0	1.2	1.0	0.8	1.3	0.6	1.5	1.5
Construction	6.9	7.0	8.1	6.4	5.9	6.2	7.2	7.2	6.8
Trade and repair	13.1	12.1	13.6	11.8	15.6	12.9	12.2	11.3	14.0
Transport and communication	8.8	8.5	8.8	9.7	8.5	11.2	8.3	9.5	8.2
Hotels and restaurants	3.6	3.5	3.3	3.6	3.9	6.0	2.9	3.0	4.7
Business services	14.8	15.3	12.8	15.2	15.6	13.3	7.3	5.2	13.5
Public administration	5.6	5.8	6.3	5.1	4.9	4.1	15.5	7.1	6.9
Education	9.0	10.6	8.2	7.2	8.4	12.8	6.5	11.0	7.6
Health & social work	17.9	16.6	20.7	17.0	18.4	11.4	14.1	22.1	10.8
Other services	5.4	5.6	4.7	6.5	4.7	6.3	3.0	4.7	5.8

Table 5.1 Employment by sector in the Nordic countries, Greenland and Faroe Islands 2015.

Data source: NSIs, except EU: Eurostat.

water power plants in Norway and northern Finland. The hotel, restaurant and other services sector is overrepresented in the ski resorts of Norway, Sweden and Finland as well as in other places that attracts tourists, such as major nature and hiking areas, Lappi in northern Finland and the Swedish island of Öland. Tourism in Iceland has grown significantly over the last ten years with Iceland now having the highest share of employment in the tourist sector in the Nordic countries. In Norway, many municipalities have a slight overrepresentation of employment in health and social services while in Denmark a slight overrepresentation in wholesale and trade occurs.

Nordic labour productivity is above the EU average

The employment rate is not the only interesting indicator enabling us to measure how well the labour market is functioning. A high employment rate can be obtained by keeping salaries low, using temporary employment contracts and generally enforcing poor working conditions. Globally this phenomenon is common and such people are often referred to as "the working poor" (ILO, 2017). With many working

poor a high employment rate does not imply high productivity. One target of the UN's 2030 sustainable development goals is therefore to increase economic productivity and this is monitored by looking at the annual growth rate of real GDP per person employed.

Figure 5.6 shows labour productivity as real GDP, in constant 2007 prices, per persons employed between 2007 and 2015 in the Nordic Region. Except for Greenland and Denmark all the Nordic countries saw a dip in productivity during the financial crisis. However, the most profound effect was found in Iceland which, as of 2015, had still not reached its pre-crisis productivity level. Additionally, despite its high employment rate it continues to have a lower productivity rate than the other parts of the Nordic Region. In 2015 all the Nordic countries and Greenland were above the EU average, particularly the capital cities which all have high rates of GDP per person employed.

Concluding remarks

To conclude, the Nordic Region has a reasonably well-functioning and integrated labour market which has helped to promote recovery from

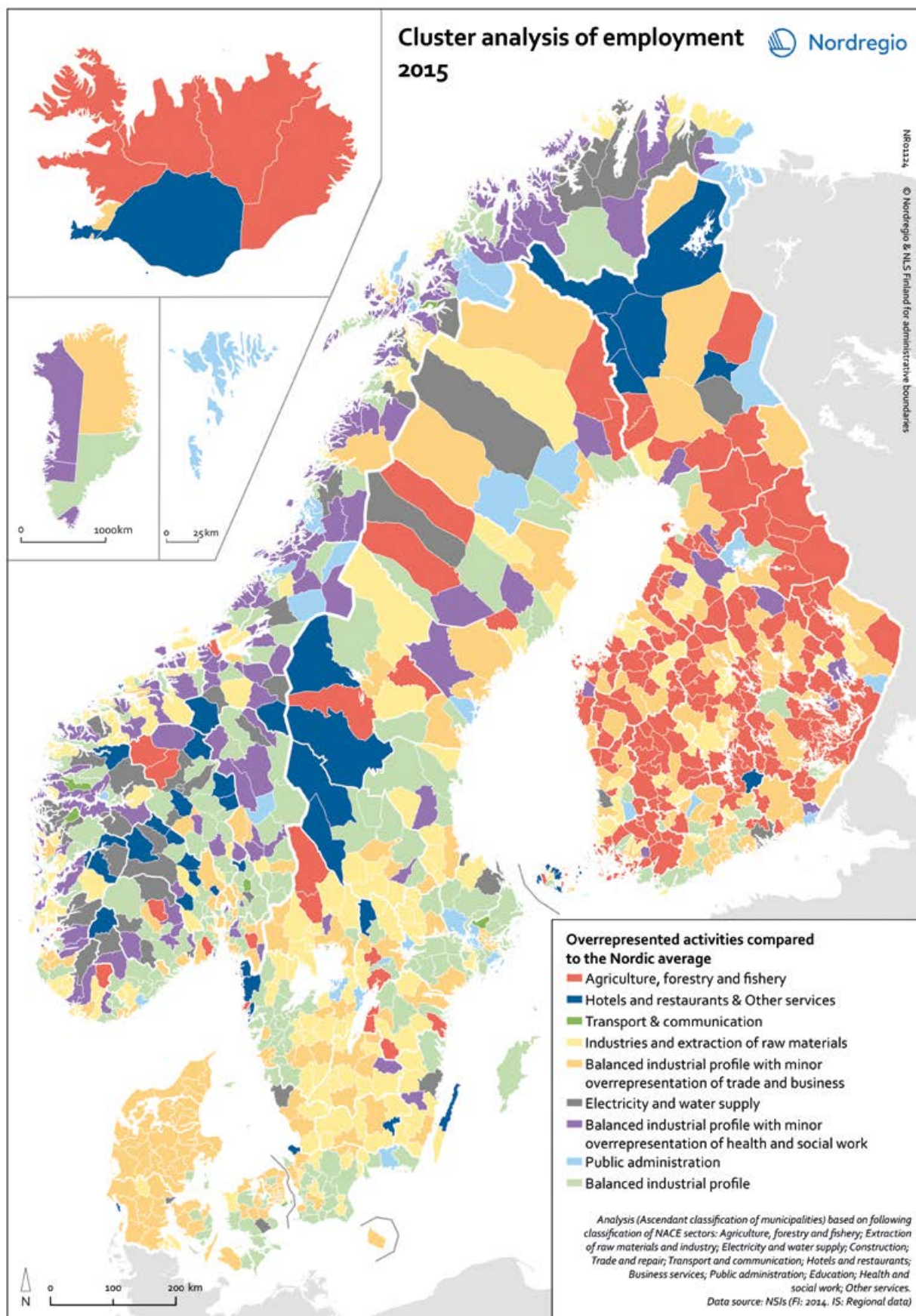
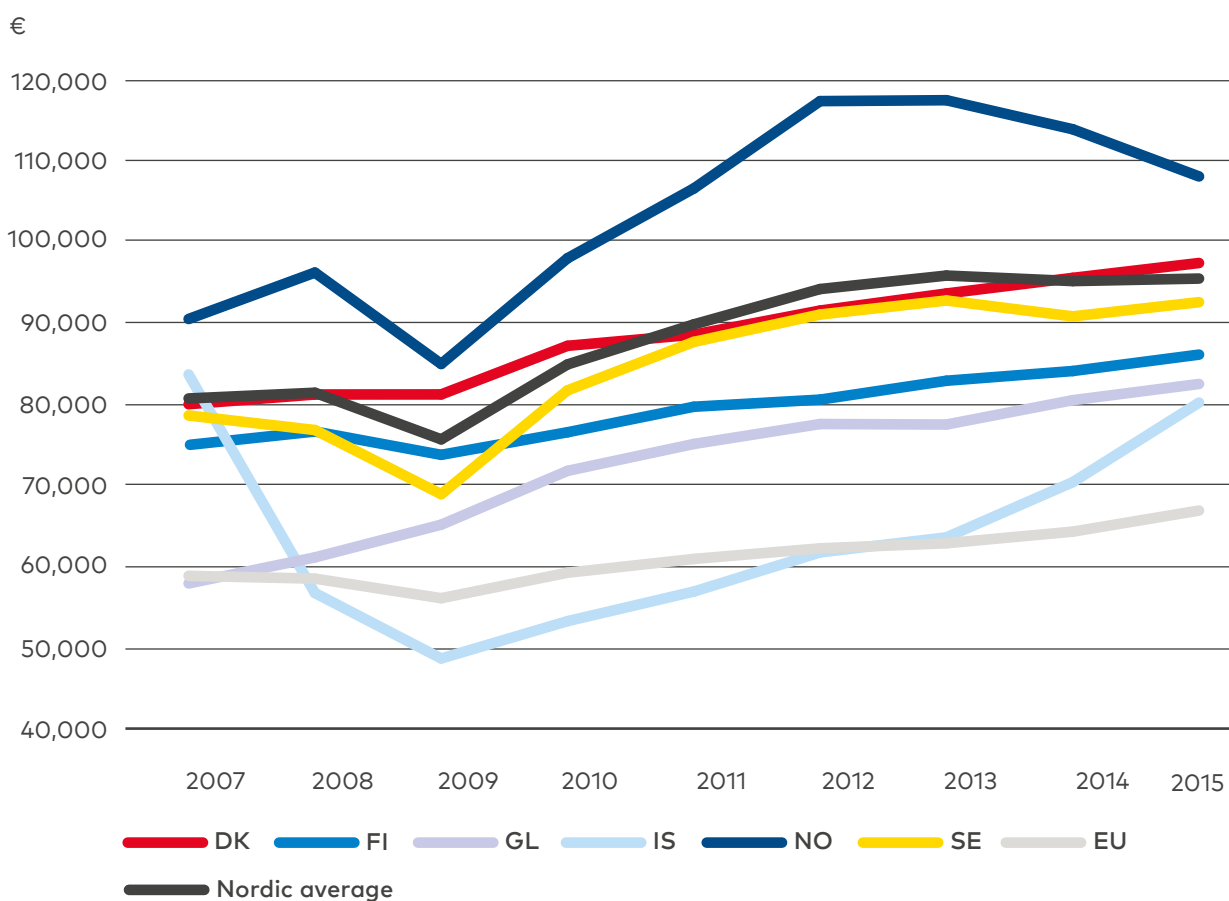


Figure 5.5 Cluster analysis of employment 2015.

Figure 5.6 GDP (in constant 2007 prices) per person employed, 2007–2015.



Data source: Nordregio's calculations based on NSIs, World Bank and Eurostat.

the financial crisis while sustaining high employment rates as compared to the European average and a productivity rate per person employed which is also above the EU average. Employment has shifted towards the service sector and more jobs are concentrated in the major cities where a more accessible supply exists of the educated people required for these high-skilled jobs. Challenges however remain. One challenge relates to the Region's ageing population and how this can be successfully managed. The number of older people is increasing and the working age population is expected to shrink, this is something that can already be seen in Finland which has a lower working age (15–64) population in 2017 than it had in 2000. Immigration is slowing this process, but the crucial issue is to find ways to integrate more quickly the newly arrived groups into the labour market and to match their competences with the labour market

demands. Another challenge is the shift towards automation and digitalisation, some estimates suggest that as much as 40% of future working hours could be taken over by automation. This is particularly pressing for current 'white-collar' jobs currently associated with middle class incomes (McKinsey & Company, 2017). In parallel with the notion of automation there is a global trend here towards a "non-employed labour force", i.e. a less regulated relation to the labour market (Sundararajan, 2017). This trend is noticeable also in the Nordic Region where the use of staffing firms providing temporary employment contracts is increasing and participation rates in trades unions is decreasing (Kvam, 2017, September). The confluence of these issues potentially pose a significant challenge to the Nordic model which is based on collective bargaining between the employers and the unions.

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Chapter 6

TOWARDS INCLUSIVE NORDIC LABOUR MARKETS

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Maps and data: Gustaf Norlén and Alex Cuadrado

High levels of labour market participation are the cornerstone of the Nordic Welfare State and a key component of the Region's high standard of living (Halvorsen et al., 2012). All Nordic countries share the ambition of promoting inclusive labour markets where as many people as possible can participate in employment. Work provides identity and contributes to economic independence, participation and social inclusion. It gives the individual an opportunity to develop and use their abilities which is another common goal in respect of Nordic integration and the inclusion of as many people as possible in labour market policies, mobilising people to be active citizens (Karlsdóttir et al., 2017). This chapter begins with a broad focus on unemployment and inactivity, detailing the present situation and providing some context for current statistics through an analysis of trends over time. It then goes on to address the specific situations of two groups who frequently experience marginalisation in the labour market – young people and immigrants.

Nordic economic recovery visible in falling unemployment rates

The Nordic economies have recovered from the financial crisis and this is visible in their recorded unemployment rates. The average unemployment rate in the Nordic Region (6.7%) decreased steadily between 2015 and 2016 among those aged 20–64 years. Denmark, Finland, Sweden, and Iceland have all experienced decreases at the national level, ranging from 0.2% (Denmark) to 0.7% (Iceland). In

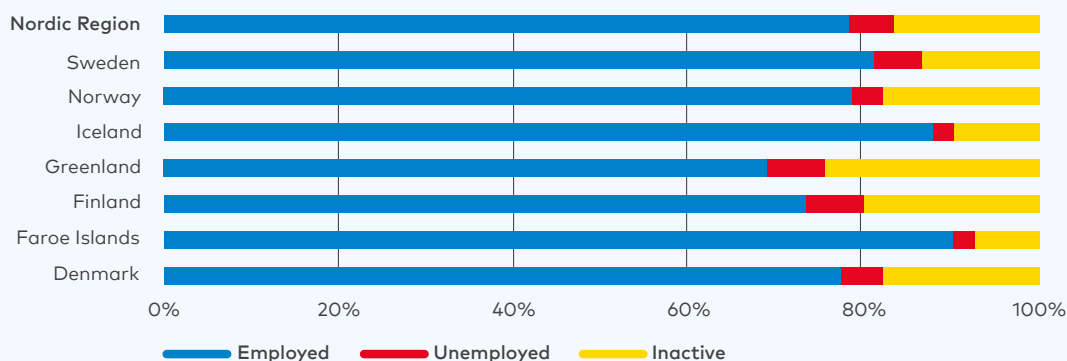
Norway, on the other hand, the rate has increased slightly (0.3%) but remains comparatively low at 4.3%. Notably, the unemployment rate in all five Nordic countries remains below the unemployment rate for the EU28 (8.4%). Iceland has the lowest unemployment rate of all the Nordic countries, at only 2.8%, followed by Norway (4.3%), Denmark (5.7%), Sweden (6.3%), and Finland (8.2%) (Eurostat, 2017d).

As can be seen in figure 6.1, regional variation in the unemployment rate shows a striking east-west pattern, with the highest unemployment rates found in Eastern Finland and the lowest in Norway, the Faroe Islands and Iceland. Greenland is an exception to this pattern with high rates in all municipalities. The Finnish regions with the highest rates include Lappi (10.9%), Keski-Suomi (11.4%) and Kainuu (11.6%). High rates (above 13%) can also be found in some Swedish municipalities, for example, Södertälje, Fagersta, Norberg, Kungsör, Arboga, Åmål and Hällefors. The majority of these places are rust belt sites (old industrial towns which have been hurt by the loss of industry). Outside of Finland, Sweden and Greenland, Ishøj, in the Copenhagen Region, is the only municipality with an unemployment rate above 10%.

Sharp disparities can be found within countries, particularly in the capital regions. In the Stockholm Region, Södertälje and Botkyrka both have unemployment rates of over 12%, while the rates in Danderyd and Vaxholm are under 3%. Similarly, in Danish capital region, Hovedstaden rates vary from as high as 12% in Ishøj to as low as 3% in Allerød. Interestingly, despite the worse overall situation in Fin-

Understanding labour market statistics

Population 20–64 by labour market status 2016



Nordic Region	Sweden	Norway	Iceland	Greenland	Finland	Faroe Island	Denmark
12,159,900	4,615,700	2,440,400	167,200	23,900	2,313,700	24,500	2,574,500
787,000	307,700	108,400	4,700	2,300	206,700	700	156,500
2,576,800	763,300	556,400	18,600	8,500	632,800	2,000	595,200

Data source: Eurostat, except GL and FO: NSIs.

In the Labour Force Survey (LFS) the population is divided into three categories: employed, unemployed and inactive persons. You are considered employed if you work at least one hour during the reference week or if you are temporarily absent due to illness, holiday, industrial dispute or education or training, and unem-

ployed if you are not employed but actively looking for a job (Eurostat 2017a).

A person is considered economically active if they are employed or unemployed. Conversely, economic inactivity is defined as people who are neither working nor looking for work.

land, rates in the Finnish capital region, Uusimaa appear to be less polarised, varying from just over 9% in Loviisa, Hanko and Myrskylä to under 5% in Kauniainen. Variations in the unemployment rate also reflects, to some extent, the increased level of ethnic segregation in the major urban areas of the Nordic countries (Tunström et al., 2016). The overall number of municipalities with an unemployment rate over 15% has however reduced since 2015.

From a gender perspective, in all countries, except for Denmark, the unemployment rate is higher for males than it is for females among those aged 20–64 years. This gap appears to be closing, apart

from Norway where the unemployment rate for males has increased by 0.7% (decrease for females between 2015 and 2016 was 0.1%) (Eurostat, 2017d). With respect to the higher rates of unemployment for females in Denmark, recent research (World Economic Forum, 2016), has found that Denmark is the only Nordic country lagging behind on equality indexes. This is clarified further by the fact that the equality of child care in the Nordic countries is lowest in Denmark, where males on average only take out 10% of the parental leave (ibid.; Haagenen et al., 2017).

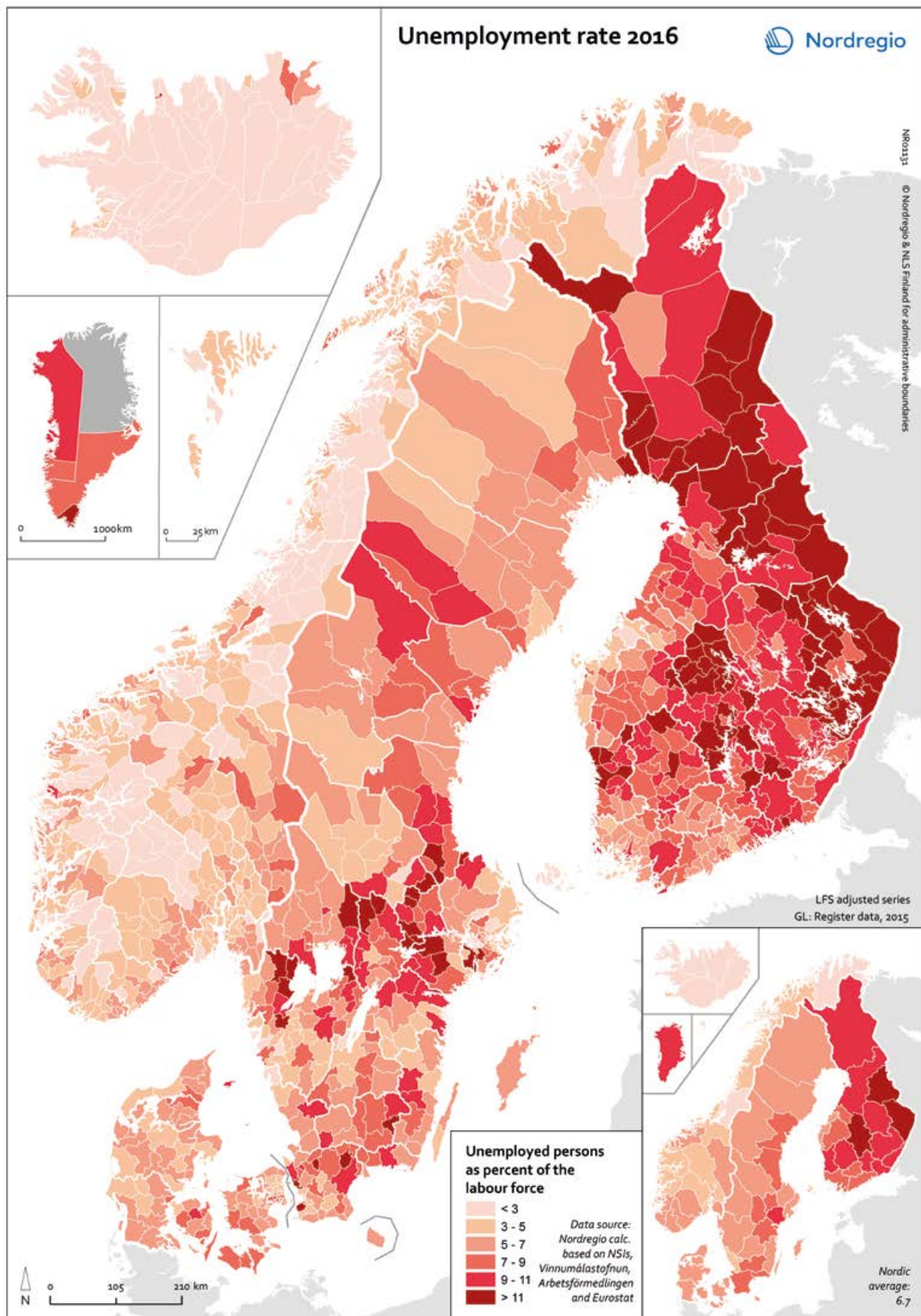


Figure 6.1 Unemployment rate 2016.

It is important to acknowledge that, for many, unemployment is a temporary state. As such, long term unemployment (>12 months) can be a useful indicator for identifying those in the population who may experience the most challenges to labour market re-entry (Væksthusets forskningscenter/Aarhus University, 2017; Duell et al., 2016). The percentage of unemployed people who are long-term unemployed is relatively low in the Nordic Region (23%) compared with the EU28 (46.6%). At a national level, Finland (25.7%) and Norway (25.7%) have the highest percentage of long-term unemployed (as a percentage of total unemployed persons), followed by Denmark (22.3%), Sweden (18.3%) and Iceland (12%) (Eurostat, 2017b).

Although these low figures are encouraging, it is important to acknowledge the rise of liberalised or deregulated fixed term contracts and temporary jobs that have emerged as a major source of employment in Europe. People in these jobs will not appear as unemployed in the statistics but are still vulnerable to experiencing periods of financial stress. This situation is particularly relevant to young people and immigrants from non-EU countries. In Sweden, temporary jobs account for some 16% of the total employment in 2016. For youth (15–24 years) this number was 54% and for immigrants from non-EU countries 27%, indicating that temporary jobs are more common for groups that are more vulnerable on the labour market (Eurostat, 2017e).

Striking differences in terms of economic inactivity

The economically inactive are commonly understood as the group furthest from the labour market in that they are neither employed, nor looking for work. As figure 6.2 illustrates, inactivity rates across the Nordic Region vary both within and between countries. The map shows the share of the population aged 25–64 years who were economically inactive in 2016. This age group 25–64 was chosen in an attempt to exclude retirees and students.

In all countries, the capital regions had the lowest share of economically inactive persons

Iceland has the lowest economic inactivity rate in Europe

Iceland had the lowest share of economically inactive persons in its population in 2016 (around 9%), followed by Åland and the Stockholm Region (less than 10%). All Swedish regions had lower shares of economically inactive persons than all the Norwegian, Danish and Finnish regions (excluding Åland) and all were below 14%. The highest share of economically inactive persons was found in Northern and Eastern Finland and in Greenland where several regions had higher economic inactivity rates than the EU average (20.8%). In all countries, the capital regions had the lowest share of economically inactive persons: 15.6% in Helsinki-Uusimaa, 14.1% in capital region of Denmark – Hovedstaden and 13.8% in Oslo.

Overall, the share of economically inactive persons is higher for females than for males. Northern and Eastern Finland and Northern Norway provide an exception here, with higher economic inactivity rates among males. The largest gender differences can be found in Telemark (9% higher for females), followed by Østfold, Vestfold, Aust-Agder and Rogaland (all around 8% higher for females).

This map is particularly interesting when considered together with the unemployment figures presented in the previous section. Finland shows relatively high rates of inactivity alongside the high unemployment rates. Norway and Denmark have comparatively low unemployment rates but higher rates of inactivity. Sweden has rather high unemployment rates, but a low share of economically inactive persons. For Sweden, this is mainly due to its active policy approach which aims to get more people into the labour market. These policies have led to both a high employment rate and a high unemployment rate (Eichhorst & Rinne, 2016). Iceland has the lowest economic inactivity rate in Europe.

When it comes to reasons for being economically inactive, this group is heterogeneous in respect of age, reasons for being inactive and attachment to the labour market (Eurostat, 2017c). This diversity is illustrated in figure 6.3, which shows the primary reason for not seeking employment for economically inactive people aged 25–64 years by gender and country.

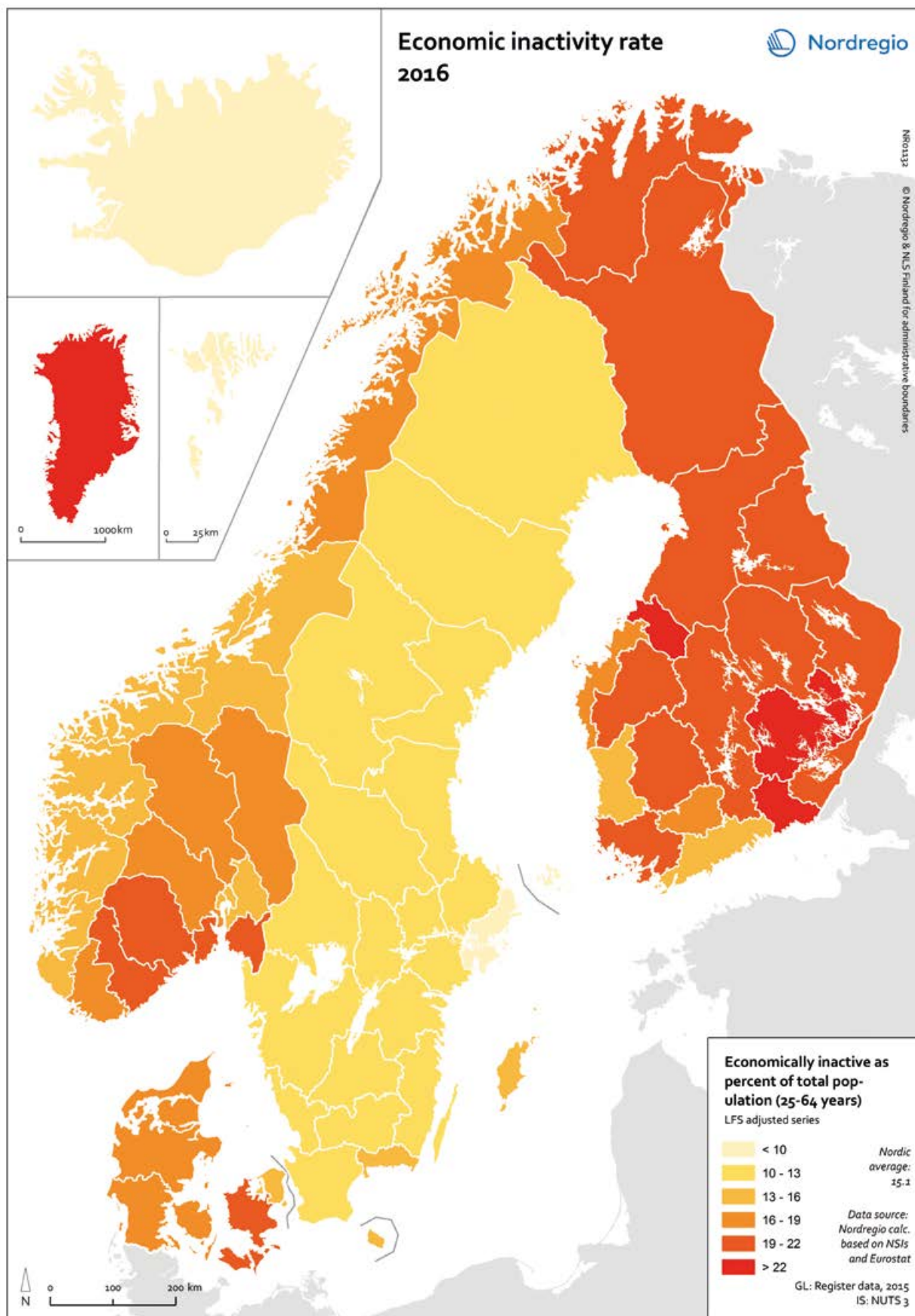
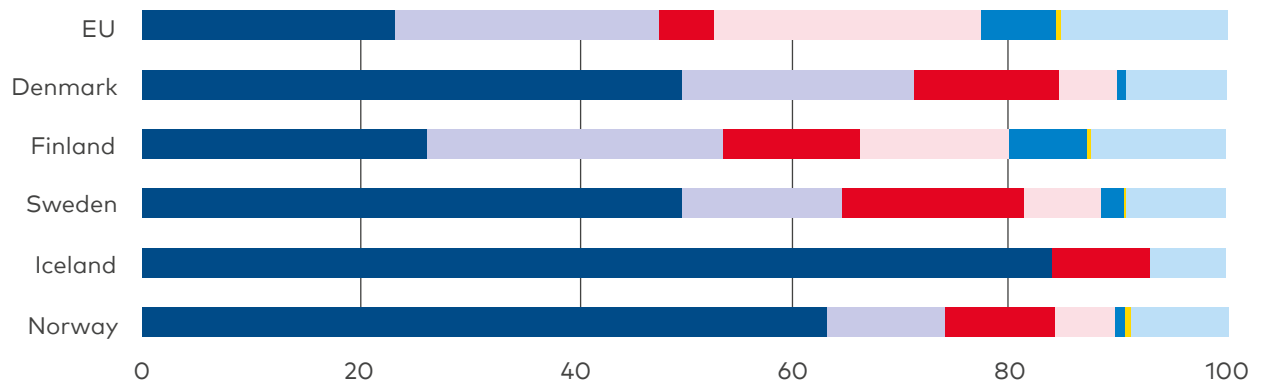


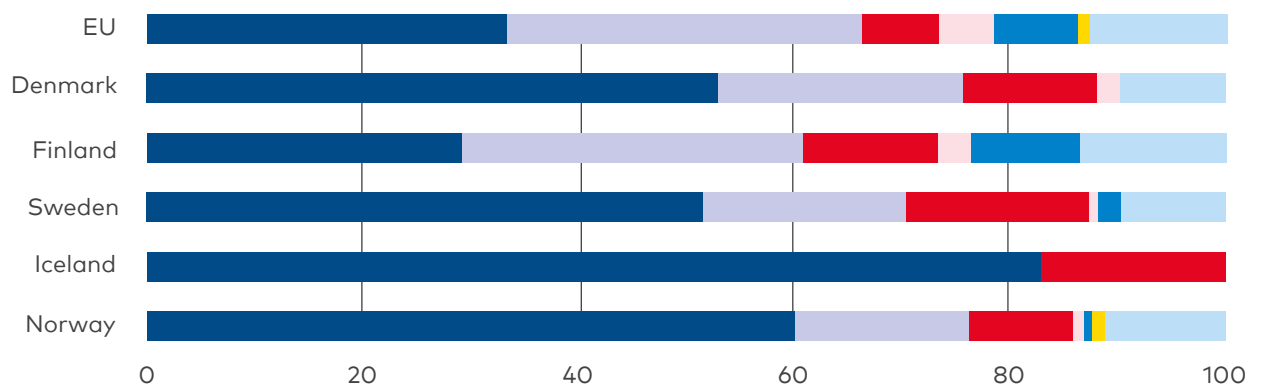
Figure 6.2 Economic inactivity rate 2016.

Figure 6.3 Inactive population (25–64 years) – main reasons for not seeking employment 2016.

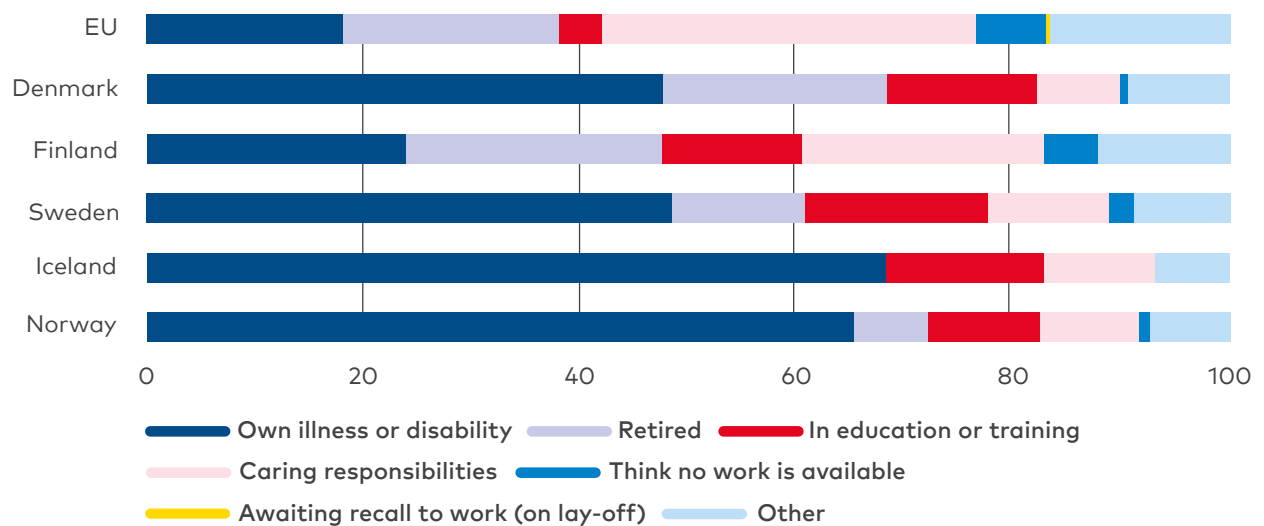
Total



Male



Female



Data source: Eurostat.

Perhaps the most notable conclusion to be taken away from figure 6.3 is different impact of caring responsibilities on inactivity in the Nordic countries. In the European Union, 32% of inactive females report caring responsibilities as the explanation, whereas this share is only 4.5% for males. In the Nordic countries, the percentage of females who report caring responsibilities¹ as the primary explanation for economic inactivity is substantially lower, 22% in Finland, 11% in Sweden, 8.5% in Norway and 3% in Iceland (Vinnumálastofnun, 2017). Interestingly, lower rates of caring among inactive females in the Nordic countries are not counter-balanced by higher rates of caring among inactive males. The percentage of males who report caring responsibilities as the primary explanation for inactivity is rather similar to that of the European Union (4.5%), 3% in Finland and, 1% in Sweden and Norway. As a result, caring responsibilities make up a relatively small proportion of the overall explanation for economic inactivity in the in the gender equity minded Nordic countries (Eydal & Gíslason, 2011; Karamessini & Rubery, 2014).

Youth unemployment remains a challenge

Young people are more likely to experience labour market disadvantage due to their relative lack of experience. This disadvantage is often exacerbated by economic conditions, as was the case following the financial crisis in 2008 (see Grunfelder et al., 2016). In many European countries, recovery from the crisis is an ongoing process that continues to have a serious impact on young people's participation in economic and (by association) social life. This is illustrated by the map in figure 6.4, which highlights the striking regional variation in the recovery as evidenced by the change in the youth unemployment rate between 2009 and 2016.

In a European comparative perspective, the Nordic countries have bounced back fairly well overall, though some variation between the countries is evident. In Sweden, Iceland and Finland, all regions have experienced at least some decrease in the youth unemployment rate, with the most substan-

Sweden (18.9%) and Finland (20.7%) have higher youth unemployment than the EU average (18.7%)

tial drops observed in Sweden. In some regions in Norway and Denmark however, the youth unemployment rate was higher in 2016 than in 2009. The most notable of these is Agder og Rogaland where the youth unemployment rate increased by almost eight percentage points (from 4.7% to 12.5%) over this period. This is possibly a result of international events that have created temporary cyclical unemployment patterns since 2008 (e.g. the global drop in oil prices).

It is important to consider the recovery evident in figure 6.4 in the context of the current youth unemployment rate. Figure 6.5 shows the youth unemployment rate for Nordic municipalities in 2016. As can be seen in the map, despite being two of the countries that have shown improvement since 2008, Sweden and Finland still have a large number of municipalities with high youth unemployment rates. On the national level both Sweden (18.9%) and Finland (20.7%) have higher youth unemployment than the EU average (18.7%). In contrast, municipalities in Denmark and Norway have lower rates overall. High youth unemployment (over 25%) can be found in several rural municipalities as well as in municipalities that traditionally have been dominated by industries, such as Trollhättan, Sandviken and Bengtsfors in Sweden and Kemi, Imatra and Äänekoski in Finland.

Young people's position in the labour market can also be considered with relation to the so-called "NEET" rate. The NEET rate includes young people 18–25 years who are neither in education, employment nor training. The NEET rate is considered a useful indicator as it captures those young people who are most likely to require targeted support to participate fully in the labour market in the long-term (OECD, 2016). Decreasing the proportion of

¹ "Caring responsibilities" includes childcare as well as other types of caring (e.g. elderly care). Only EU28 and Sweden provide reliable data on childcare specifically, but these figures suggest that a large proportion of "caring responsibilities" here refers to childcare – particularly in the Nordic countries. In the EU28, 21% of inactivity is explained by childcare (36.5% by caring responsibilities) and in Sweden the figure (12%) is the same for childcare and caring responsibilities.

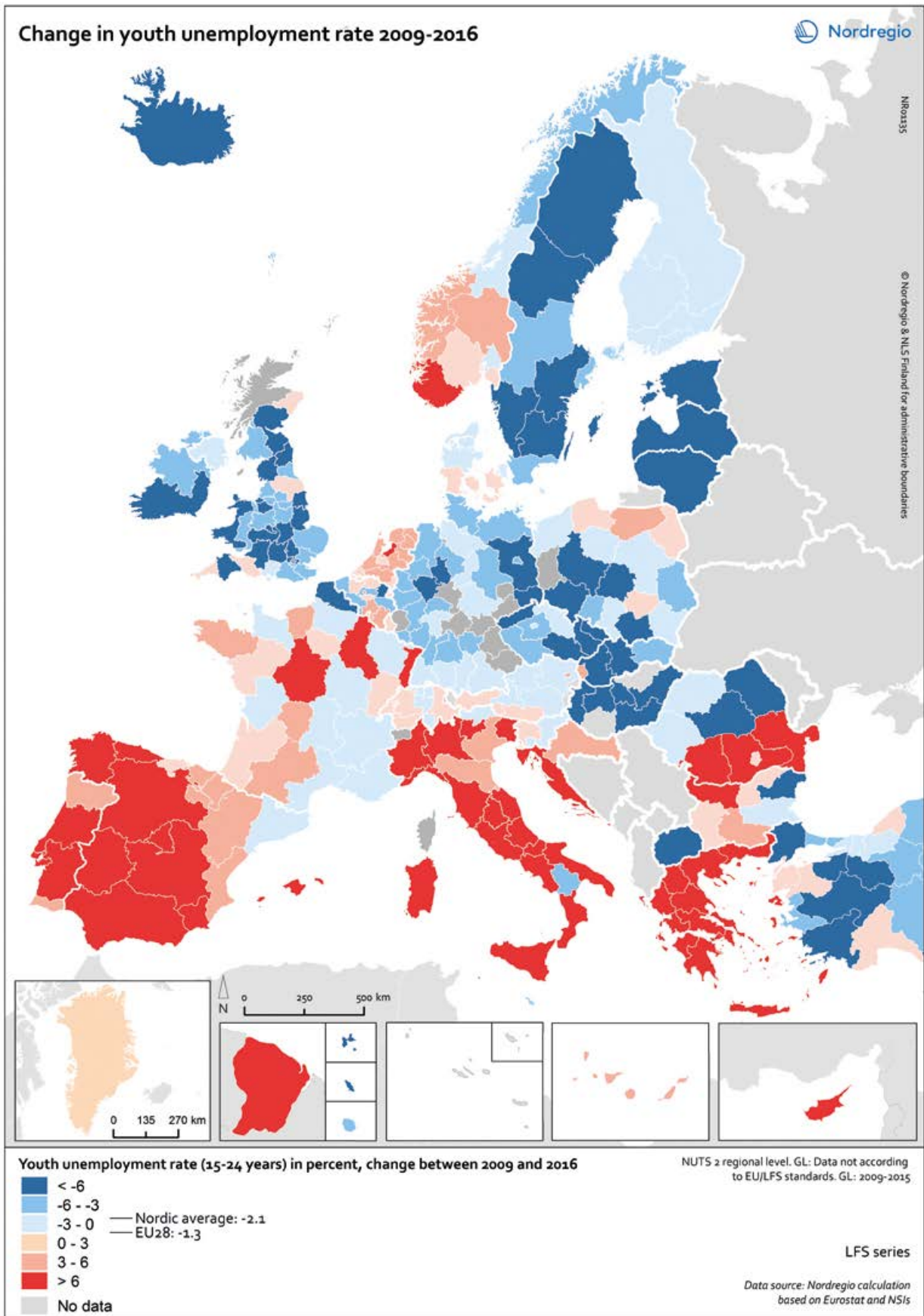


Figure 6.4 Change in youth unemployment rate 2009–2016.

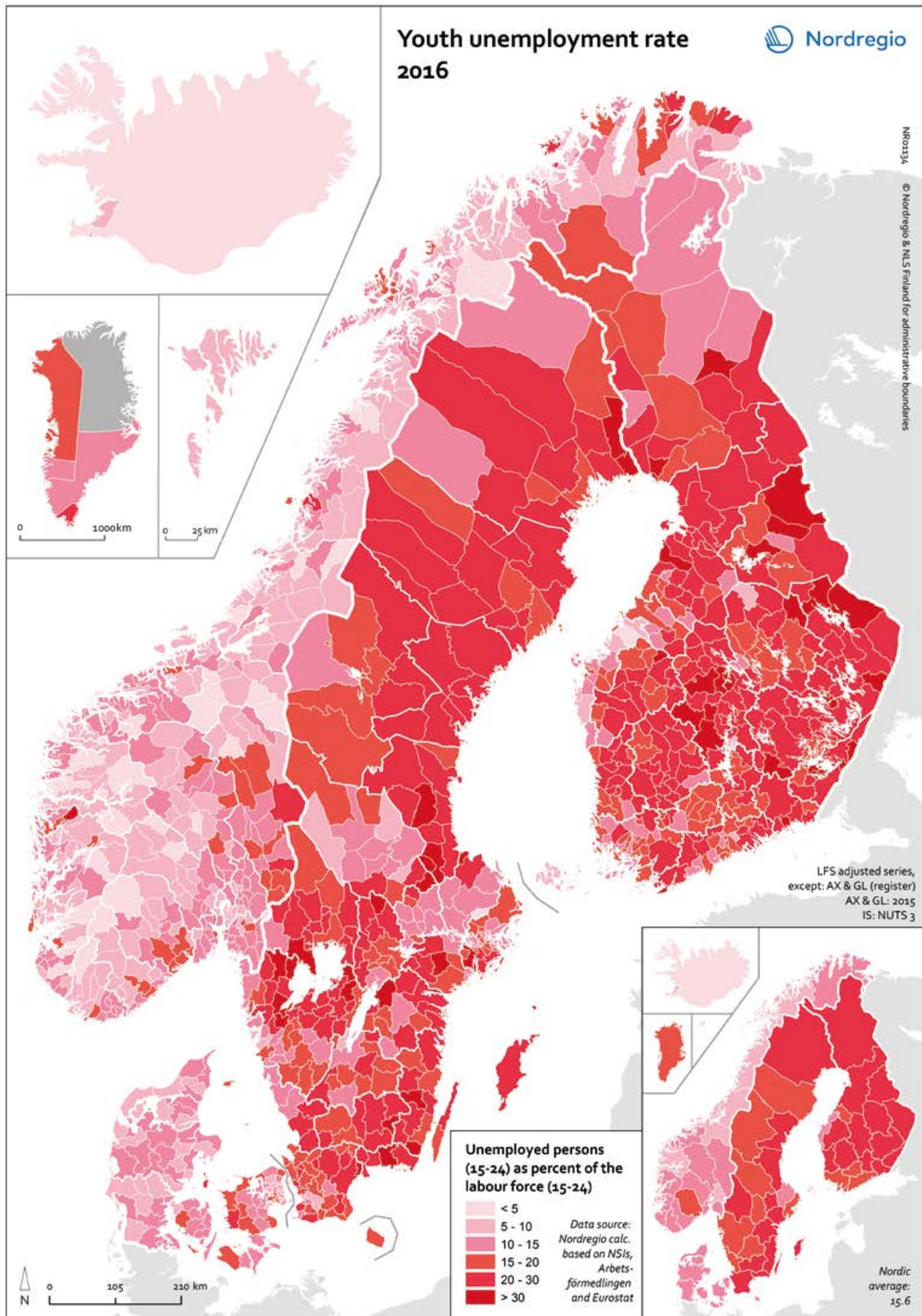
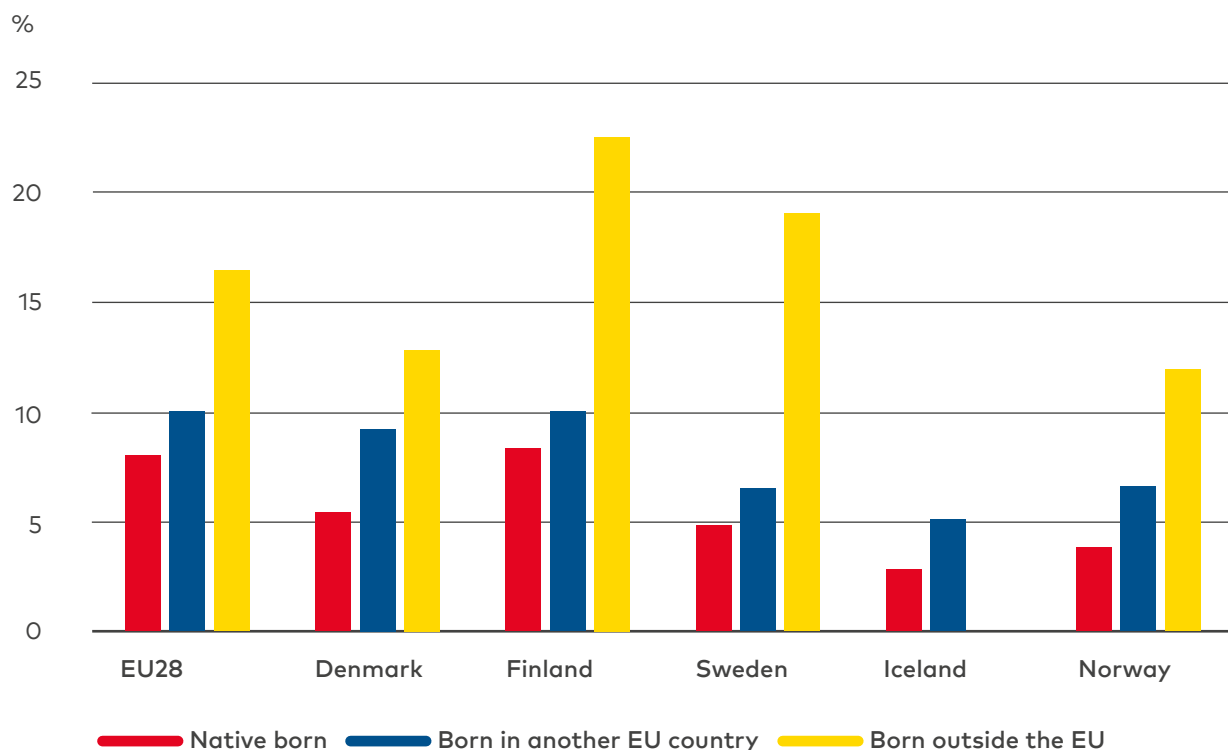


Figure 6.5 Youth unemployment rate 2016.

Figure 6.6 Unemployment rate (15–74 years) by country of birth 2016.



Data source: Eurostat. Note: IS: no data for population born outside the EU.

NEETs is also one of the targets of the UN's 2030 sustainable development goals. In 2016, the NEET rate in all Nordic countries was below the EU28 average (15.2%). Finland is the Nordic country where the rate is highest (13.7%), followed by Sweden (8.4%), Denmark (7.7%), Norway (7.4%) and Iceland (4.5%). Interestingly, while NEET rates in the Nordic countries are highest for young men, the EU28 average has remained lower for males (14.7%) than females (15.7%) since the indicator was introduced in 2002. Notably, this trend is reversed in some cases at the regional level. For example, in Helsinki-Uusimaa in Finland, Stockholm and Mellersta Norrland in Sweden, and Trøndelag in Norway (Eurostat, 2017f).

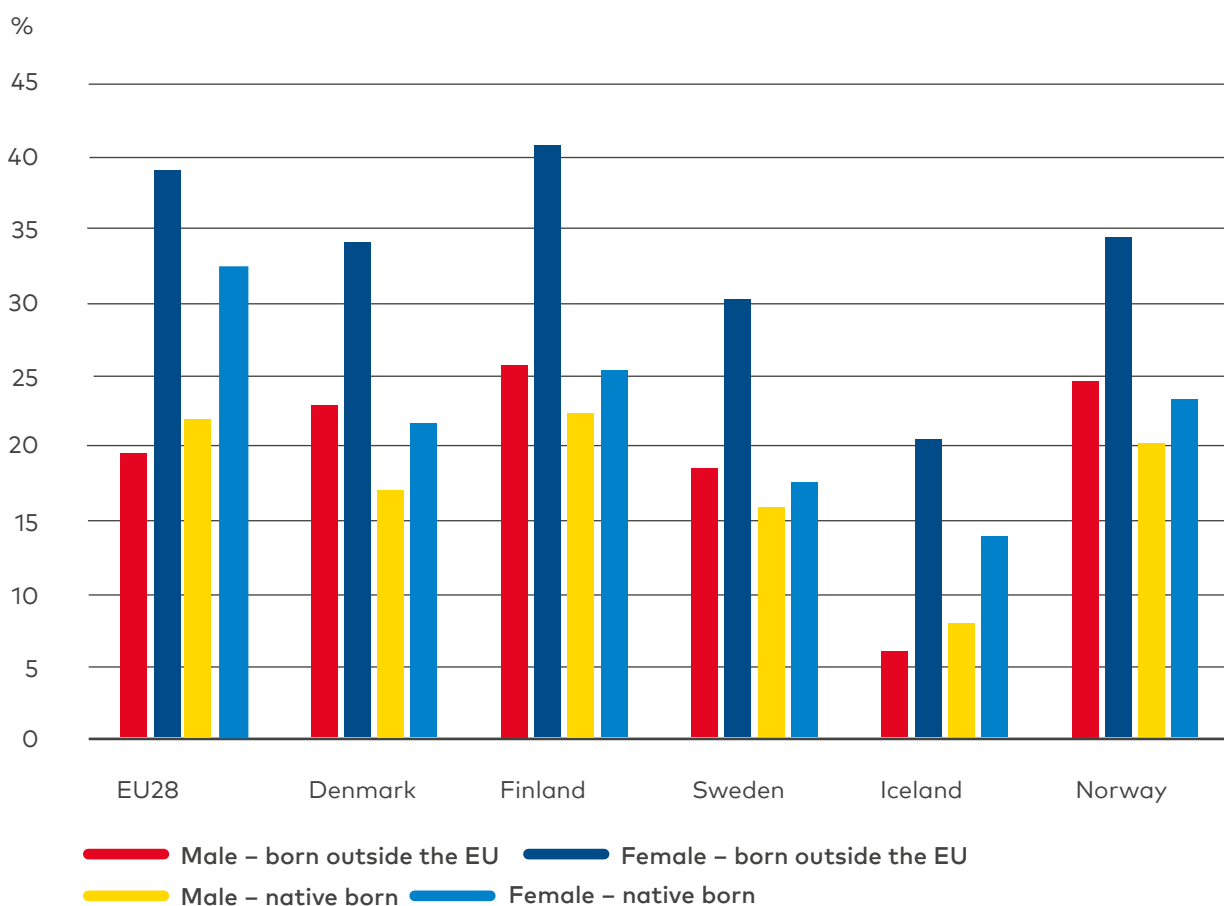
Room to improve on labour market integration

Despite the Nordic Region's strong economic position, challenges remain when it comes to ensuring equal access to the labour market across the population. Figure 6.6 shows the percentage of unem-

ployed persons aged 15–74 years for native-born persons, immigrants with an EU-background, and immigrants with a non-EU background. For immigrants with a non-EU background, the likelihood of being unemployed is in some cases three times higher than that of a native-born person. Those with an EU background fare better, but are still more likely to be unemployed than native-born persons in all Nordic countries. The gap is most pronounced in Finland and Sweden.

The labour market disadvantage experienced by immigrants to the Nordic countries also appears to have a gender dimension. Among the native-born population and immigrants from other EU countries, the unemployment rate is higher for men in all countries but Denmark. For non-EU immigrants, unemployment rates are lower for women in Sweden and Norway, and lower for men in Finland and Denmark. As figure 6.7 shows, economic inactivity rates in all Nordic countries are also higher among those who are born outside of EU. In this case the gender dimension is relatively uniform across countries, with women more likely to be inactive than men in each group.

Figure 6.7 Inactivity rate by gender and country of birth 2016.



Data source: Eurostat.

A recently published special issue of the Nordic Economic Policy Review entitled *Labour Market Integration in the Nordic Countries* (Damm and Åslund, 2017) sheds further light on the situation in the different countries. In Norway, researchers found that, although there was a strong upward trend towards labour market integration following admission, this trend levels off (women) and even reverses (men) after 5–10 years in the country (Bratsberg et al., 2017). A high level of educational attainment from the host-country, or education at any level obtained in Norway, was found to be of great value (ibid.). Danish research reported a similar pattern, as well as finding that refugees and family reunified with refugees are more vulnerable to the negative effects of business cycle fluctuations, when compared to the native-born population (Schultz-Nielsen et al., 2017).

In Finland, country of origin was found to be an important predictor of labour market integration, with the average earnings of immigrants born in Afghanistan, Iraq and Somalia ten years after arriving in Finland only 22–38% of the average native-born male of the same age (Sarvimäki, 2017). This gap was even larger for women (ibid.). Swedish research reports similar findings – a relatively slow entry process, in which contact with the first job is influenced by country of origin and business cycle conditions, and long-term outcomes below those of the average worker (Åslund et al., 2017).

Together, these studies provide some insight into potential ways forward. The large variation based on country of origin and gender suggests a need for integration programs that respond in different ways to different groups. Enduring gaps between the employment outcomes of refugees and the na-

tive-born population suggests that integration support may need to be provided over a longer period that goes beyond connection to the first (often low-skilled) job. The composition of the labour market is also an important consideration. Together with Switzerland, Norway and Sweden have the smallest share of low-skilled jobs in Europe (under 5%) (Eurostat, 2017g). This means that initial entry into the labour market may be more challenging, particularly for lower-skilled immigrants.

A higher level of education improves employment prospects everywhere, both for immigrants and non-immigrants. However, immigrants with higher education have more difficulty in finding a high-skilled job than their native peers. The main obstacles are language skills and getting their credentials recognised. In the case of immigrants with a low level of education, the picture is different and varies by region (Karlsdóttir et al., 2017).

Concluding remarks

The Nordic Region continues to experience economic growth, as evidenced by falling unemployment rates in almost all countries. These rates are

low in a European comparative perspective, as are rates of long-term unemployment and economic inactivity. Despite this positive overall picture, notable exceptions remain. Regional variation is evident, most notably in Greenland, Eastern Finland and the “rust belt” in the middle of Sweden where unemployment rates remain high and appear to reflect long-term structural problems in the local labour markets. Youth unemployment rates remain a concern, despite having declined since the financial crisis in most regions. Finland and Sweden stand out, both with national rates above the EU average. There is also considerable room for improvement on labour market integration, with immigrants, particularly those born outside of the EU, substantially more likely to be unemployed or economically inactive when compared with the native-born population. This labour market disadvantage is particularly pronounced for women and appears to persist well beyond the initial years following arrival. Addressing these inequalities and ensuring equal access to labour market participation for all is a key challenge going forward and will be vital to retaining the high quality of life and working conditions that are associated with the Nordic model.

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Chapter 7

EDUCATION IN AN EVOLVING ECONOMIC LANDSCAPE

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Maps and data: Gustaf Norlén, Oskar Penje, Linda Randall and Eeva Turunen

This chapter will explore education levels in the Nordic Region based on a range of indicators. First, it addresses education outcomes for young people (15–24 years) based on the results of the Programme for International Student Assessment (PISA) at a national level, including a European and international outlook, and statistics on early school leaving at a regional level. It goes on to explore education levels in the working age population (25–64 years), finding substantial variation in education levels between municipalities. Finally, it discusses the implications of structural changes to Nordic labour markets for education in the context of regional development.

Native-born students perform better on PISA

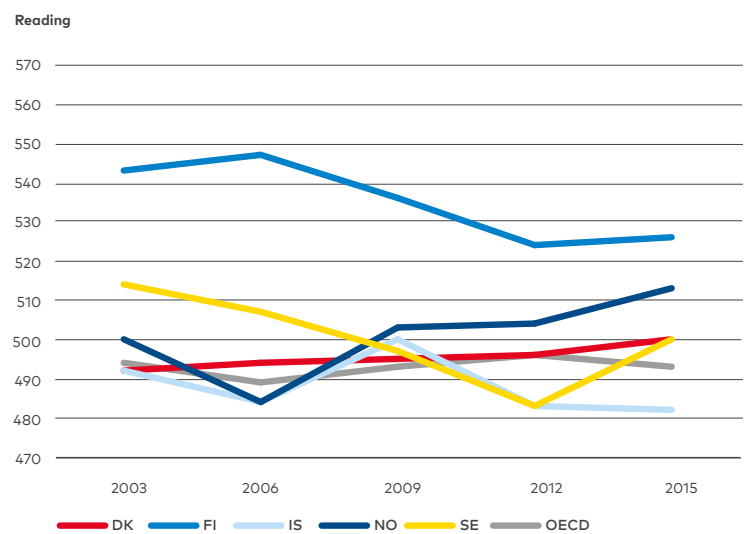
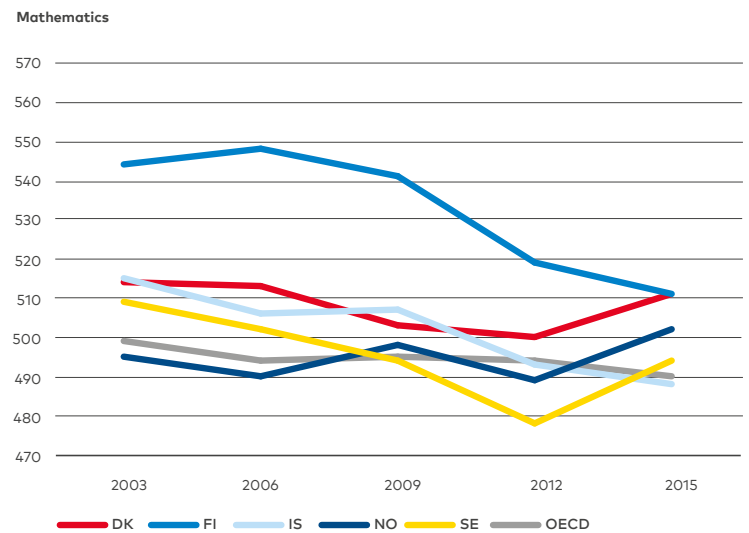
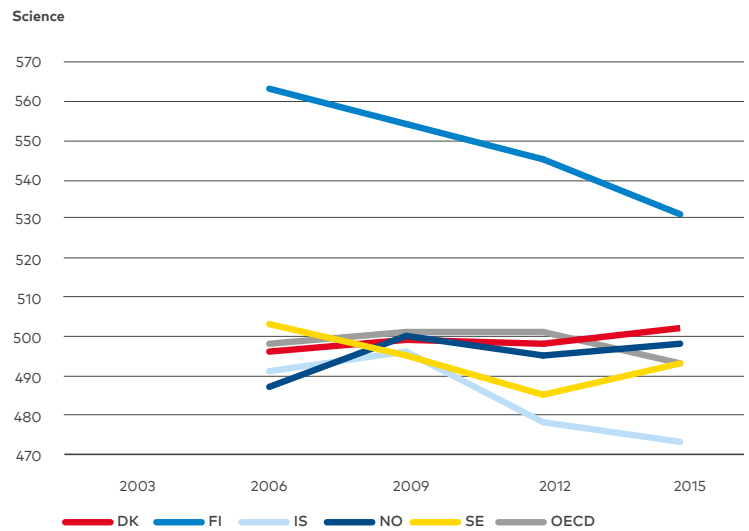
The PISA is an international survey conducted by the OECD every three years and is widely used to assess the effectiveness of education systems around the world. Around 540,000 students took part in the PISA 2015 representing 29 million 15 year olds across 72 countries (OECD, 2016). It is worth noting that both methodological and ideological concerns have been raised about the approach, the former relating mostly to sampling and the latter to concerns about an overreliance on standardised test scores in policy making (for a more detailed critique of the PISA approach see: Carnoy, 2015; Fernández-Cano, 2016; Sjøberg, 2015). Despite these concerns, the PISA remains a useful tool for comparing student performance at lower second-

Finland remains the top Nordic performer, though results continue to decline in mathematics and science

ary school level between countries over time and is used to track progress towards the millennium development goals (Sachs et al., 2016).

As can be seen in figure 7.1, Finland remains the top Nordic performer, though results continue to decline in mathematics and science. Following on from the 2012 drop in scores which attracted substantial attention, Sweden has shown the greatest gains, with significant improvements in mathematics and reading. Norway and Denmark have remained consistent in reading and science and improved in mathematics. Iceland has not shown any improvement from its 2012 performance and remains below the other Nordic countries and the OECD average on all subjects. With respect to gender, female students have significantly higher reading scores than male students in all Nordic countries (consistent with the OECD average). In Finland, female students also outperformed male students in mathematics and science (both counter to the OECD average). In Denmark, male students outperformed female students in mathematics (consistent with OECD average). There are no other significant gender differences.

Figure 7.1 PISA results over time for all Nordic countries.



Data source: PISA International Data Explorer.

Perhaps the most interesting result emerging from the 2015 PISA is the substantial gap between the scores of native-born students and those of first and second-generation students¹ in the Nordic countries. This gap, illustrated in figure 7.2, is more pronounced in all Nordic countries when compared to the OECD average. Science scores² for native born students in the Nordic countries were, on average, 1.5% higher than the OECD average for native born students. In sharp contrast, science scores for first and second-generation students in the Nordic countries were, on average, 4.6% and 4.3% lower than the OECD averages for first and second-generation students respectively.

The largest gaps between native-born students and immigrant students are found in Iceland, where native-born students scored 23% higher than first-generation students, Sweden (22% higher) and Finland (21% higher). These gaps are among the largest in the EU, with Slovenia (22%) and Germany (21%) also making the top 5 (OECD, 2016). The gap is smaller in Denmark (16% higher) and Norway (14% higher). Interestingly, Danish students with foreign-born parents performed at the same level regardless of whether they themselves were born in Denmark. In all other countries, test scores appear to improve with each generation.³

Young men in rural areas most vulnerable to early school leaving

Early school leaving⁴ is of concern in all Nordic countries to varying degrees and addressing it has been a priority under the Finnish Presidency of the Nordic Council of Ministers (Norden, 2017). The prob-

lem is both structural and self-reinforcing – young people who face challenges in other parts of their lives are more likely to leave school early which, in turn, increases the likelihood of further social exclusion (European Commission, 2013). From a regional development perspective, there are both individual and societal aspects to be considered. At an individual level, young people have the right to an education that responds to their (at times complex) needs, regardless of where they live (Sachs et al., 2016). This is becoming increasingly challenging in many rural communities, where youth populations are shrinking and resources are scarce (Copus et al., 2017). At a societal level, education may contribute to regional resilience in times of economic downturn, or in the event that a significant primary industry is lost (ESPON, 2014).

Based on the available data, it is clear that there is both a spatial and a gender dimension to this problem. The spatial dimension is highlighted in figure 7.3, which shows rates of early school leaving for each Nordic country, and the EU28, for cities, towns and suburbs, and rural areas.⁵ As can be seen in the figure, rates are highest in rural areas and lowest in cities. The gap is most pronounced in Iceland, where young people are almost twice as likely to leave school if they live in towns and suburbs or in rural areas than if they live in a city. From a pan-European perspective, the Danish (7.2%), Swedish (7.4%) and Finnish (7.9%) averages all fall below the EU average (10.7%), and are in line with the Europe 2020 target of below 10%. The Norwegian average (10.9%) remains slightly above the target but is comparable to the EU average. The average rate of early school leaving in Iceland (19.8%) is substantially higher than the other Nordic countries and the EU average. Student support structure differs be-

¹ Categories defined as: native students (born in the country of assessment and has at least one parent born in that country); second-generation (born in the country of assessment but does not have a parent born in that country); first-generation students (born outside the country of assessment and whose parents were also born outside that country) (OECD, 2016).

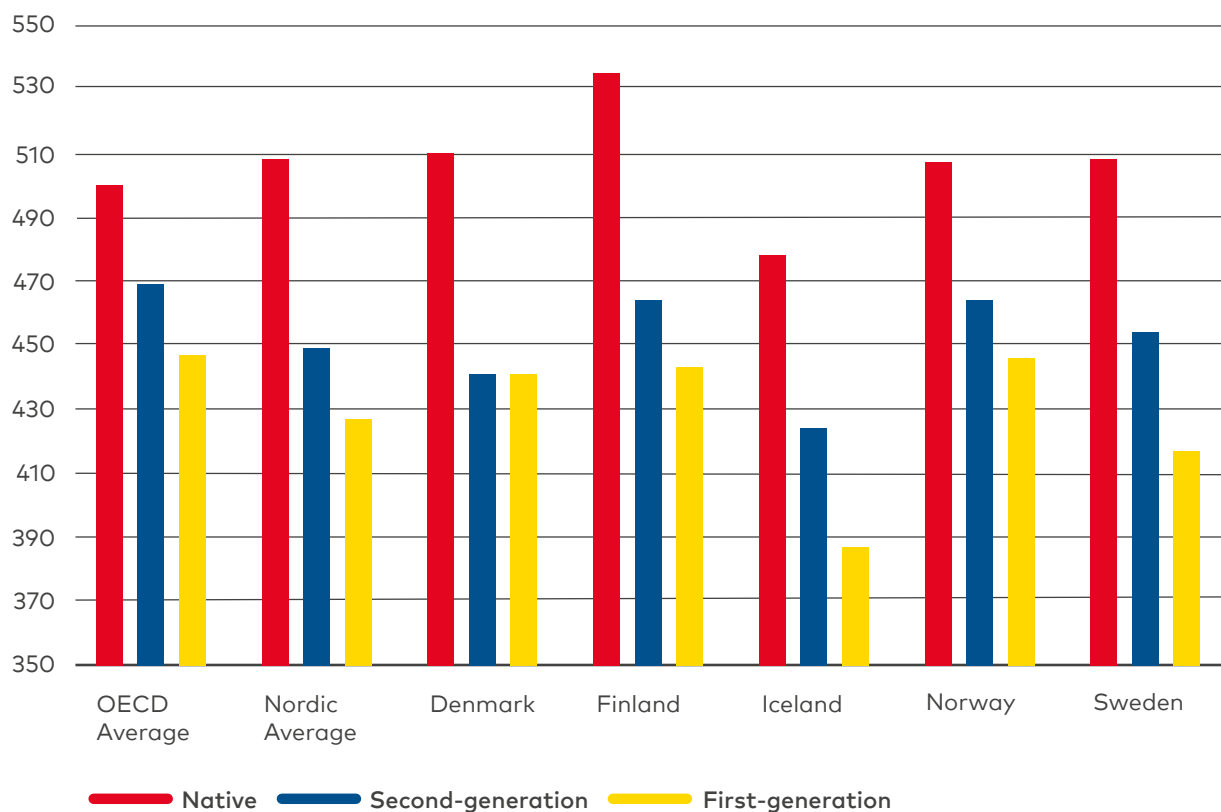
² The PISA consists of one major area of assessment and two minor areas of assessment. The major area of assessment in 2015 was science, it is therefore typical to use these test scores when considering PISA results in the context of another variable.

³ In Finland, the gap between the scores of first and second-generation students is not statistically significant.

⁴ Early school leavers are defined as those who have not completed upper secondary school: "gymnasium" in Denmark and Sweden, "lukio" and "gymnasium" or its vocational equivalent "ammattillinen oppilaitos" and "yrkesskola" in Finland, "videregående skole" in Norway, and "framhaldsskóli" in Iceland.

⁵ Cities = densely populated area (at least 50% of the population lives in urban centres). Towns and suburbs = intermediate density areas (less than 50% of the population lives in rural grid cells and less than 50% lives in urban centres). Rural areas = thinly populated areas (more than 50% of the population lives in rural grid cells).

Figure 7.2 Average science score by country and indexed immigration status 2015.



Data source: PISA International Data Explorer.

tween Iceland and the other Nordic countries, many adolescents have easy access to and must work to finance living and study, making students more vulnerable to not completing their studies.

The spatial dimension of early school leaving is further highlighted in the figure 7.4, which shows rates of early school leaving in the Nordic Region at the NUTS 2 level. Although there are some limitations to the conclusions that can be drawn from data at this level, the map does highlight the comparatively high rates in Norway, particularly in the north. It is worth noting that, although still high in a Nordic comparative perspective, early school leaving rates have decreased in all Norwegian regions since 2012. Rates are also high in Greenland, with a staggering 57.5% of young people aged 18–24 years who are not currently studying and who have lower secondary as their highest level of educational attainment.

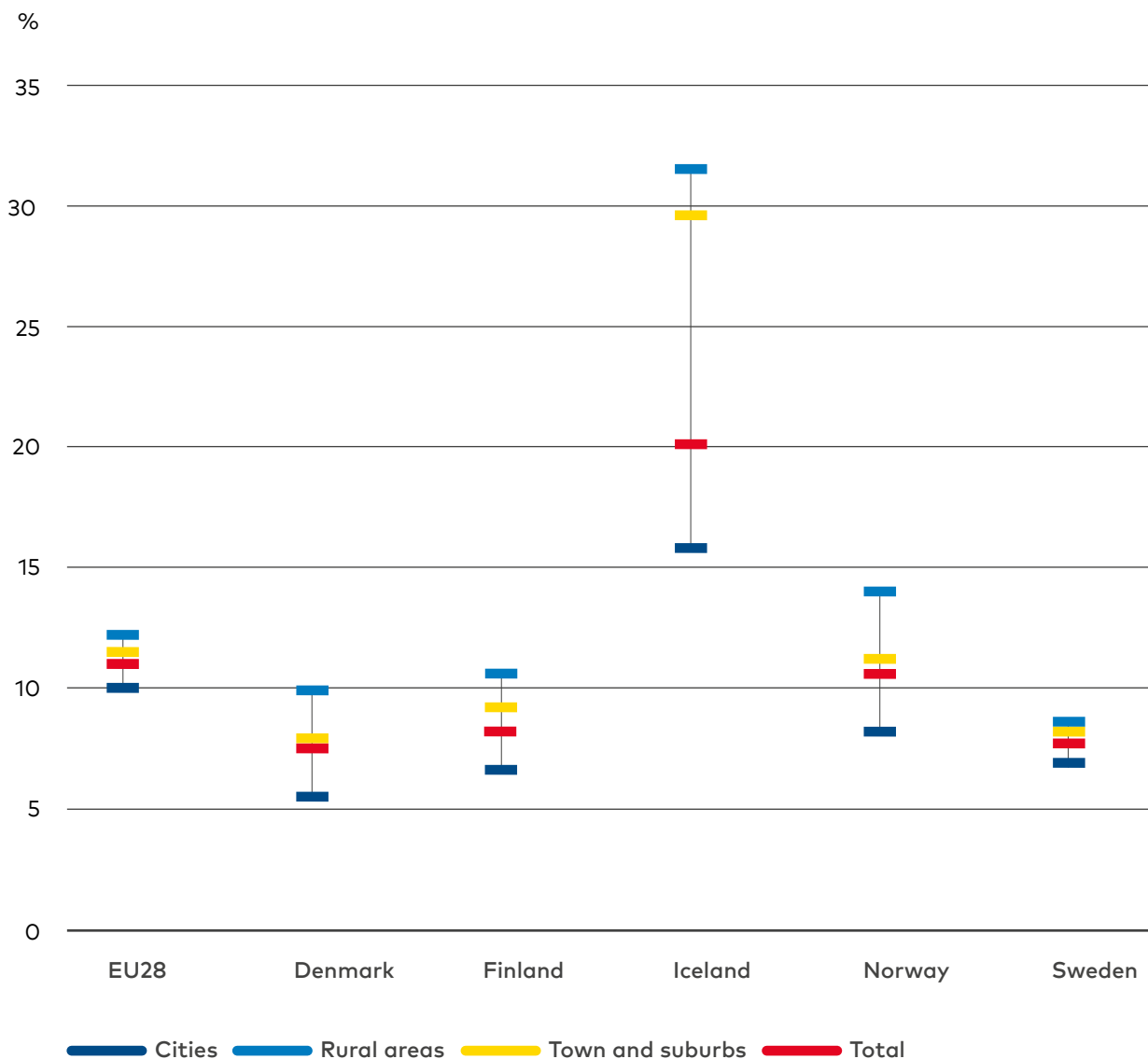
Figure 7.4 also shows the gender dimension of early school leaving, with young men more likely to

leave school early in most regions. At a national level, the gender gap is most pronounced in Iceland (51% higher rate for males), Norway (45%) and Denmark (44 %) and least in Sweden (28%) and Finland (30%). At a regional level, the largest gender gaps can be found in Etelä-Suomi (153% higher for males), Småland med öarna (113% higher), and Trøndelag (105% higher).

Great differences in education among working age population

Education levels among the working age population vary substantially between municipalities. This is illustrated in figure 7.5 which shows the share of the population with lower secondary or below (ISCED 0–2) as their highest level of educational attainment in 2016. The share ranged from as low as 3.2% in the suburban Stockholm municipality of Danderyd, to as high as 67% in Qaasuitsup, North-Western Greenland. The Nordic average

Figure 7.3 Early leavers from education and training by degree of urbanisation 2016.



Data source: Eurostat.

(16.5%) was well below the EU average (23%). Sweden had the lowest share of persons in this group (12%) and Greenland the highest (54%). Norway (21%) and Iceland (25%) were around the EU average and Denmark (19%) and Finland (17%) were closer to the Nordic average. These cross-country differences can be explained to some extent by the education systems of the respective countries. In Sweden and Finland, students are more likely to take a standard (academic) pathway through upper secondary school (Albæk et al., 2015). Alternatively, in Denmark and Norway students are more evenly split between academic and vocational pathways, with those in the vocational pathway more vulner-

able to non-completion (ibid.). This does not necessarily imply negative outcomes for these students – many leave to pursue employment opportunities (ibid.).

These figures also reflect structural economic differences at both the national and the local level. Where regional economies are rich in employment opportunities that do not require high levels of formal education, there may simply be less incentive to study. As an example, figure 7.6 shows the relationship between the share of the population with lower secondary as their highest qualification and the unemployment rate for each Nordic municipality. In Norway, where higher shares of the population have

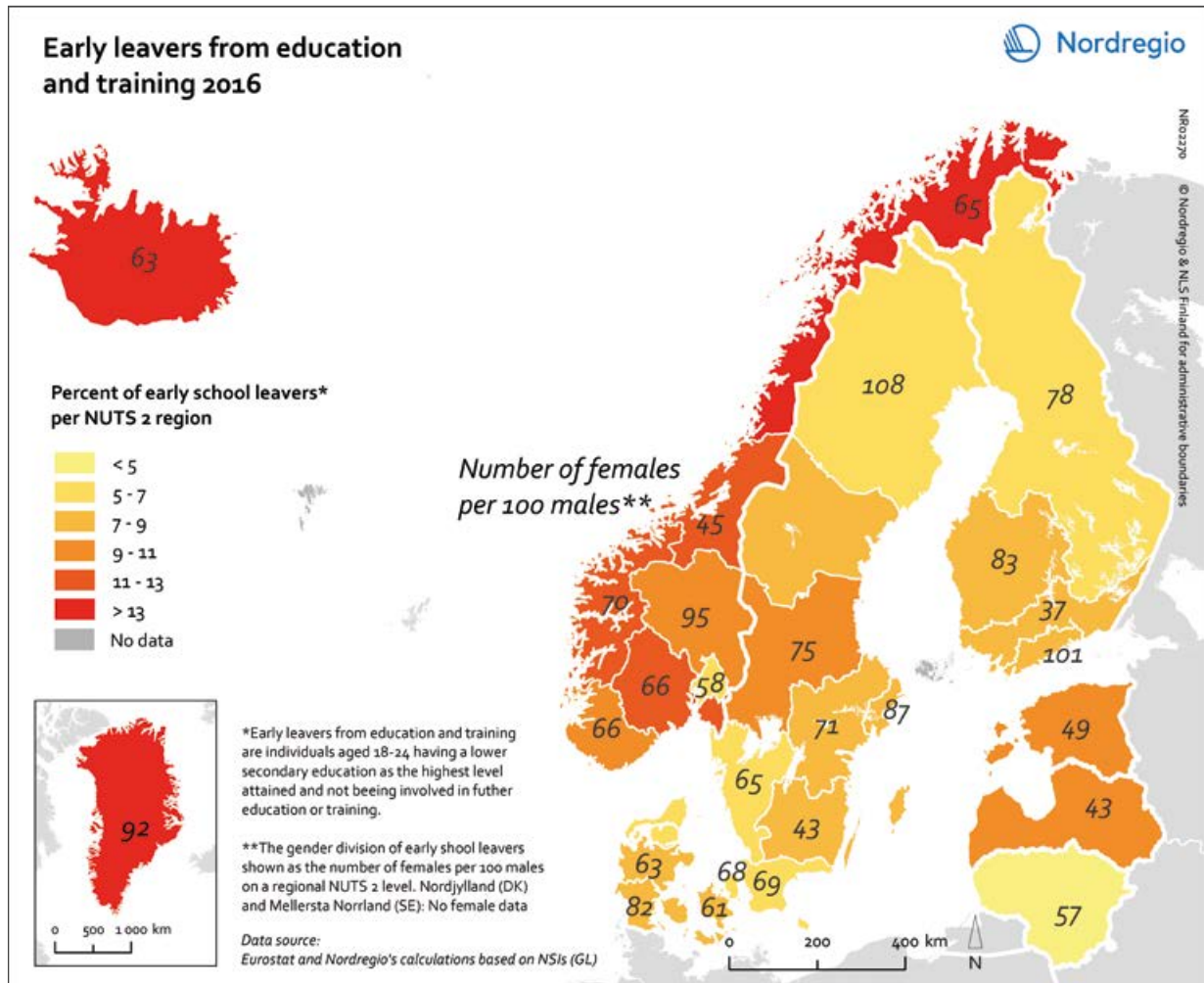


Figure 7.4 Early leavers from education and training 2016.

only a basic level of formal education, very little of the variation in unemployment rates of municipalities can be explained by the level of education among the population. In contrast, in Sweden, where relatively low shares of the population have only a basic level of formal education, the relationship between the unemployment rate and low educational attainment is comparatively strong.⁶

Cities and university towns dominate on higher education

The EU 2020 target aims at 40% of 30–34 year olds with a tertiary level qualification. The Nordic average is currently 49%, with Sweden: 51% and Norway

(50.1%) leading the way and Iceland (48.8%), Denmark (47.7%) and Finland (46.1%) not far behind (Eurostat, 2017). When it comes to the working age population as a whole, tertiary education levels are also high, with a Nordic average of 40%, compared to the EU average of 31%. At a national level, Sweden and Norway (42%) have the highest shares of their population with tertiary level education. Finland (39%), Iceland (39%) and Denmark (37%) also have relatively high shares. The share of the population with a tertiary education is lowest in Greenland (19%).

As can be seen in figure 7.7, there is considerable regional variation in tertiary education levels, with rates as low as 9% (Qaasuitsup, Greenland) and as high as 73% (Danderyd, Sweden). The highest share

⁶ R² = 0.2441

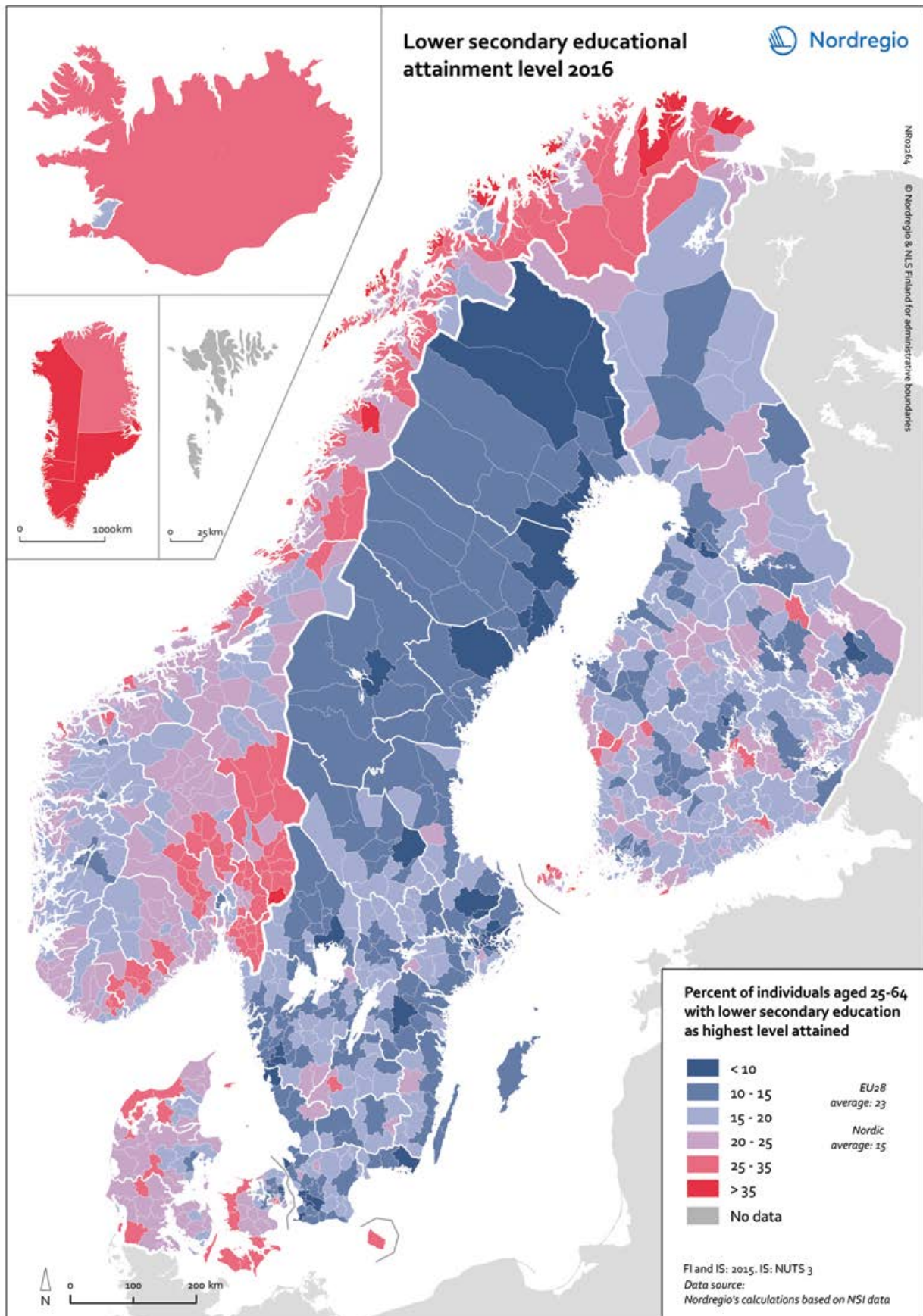
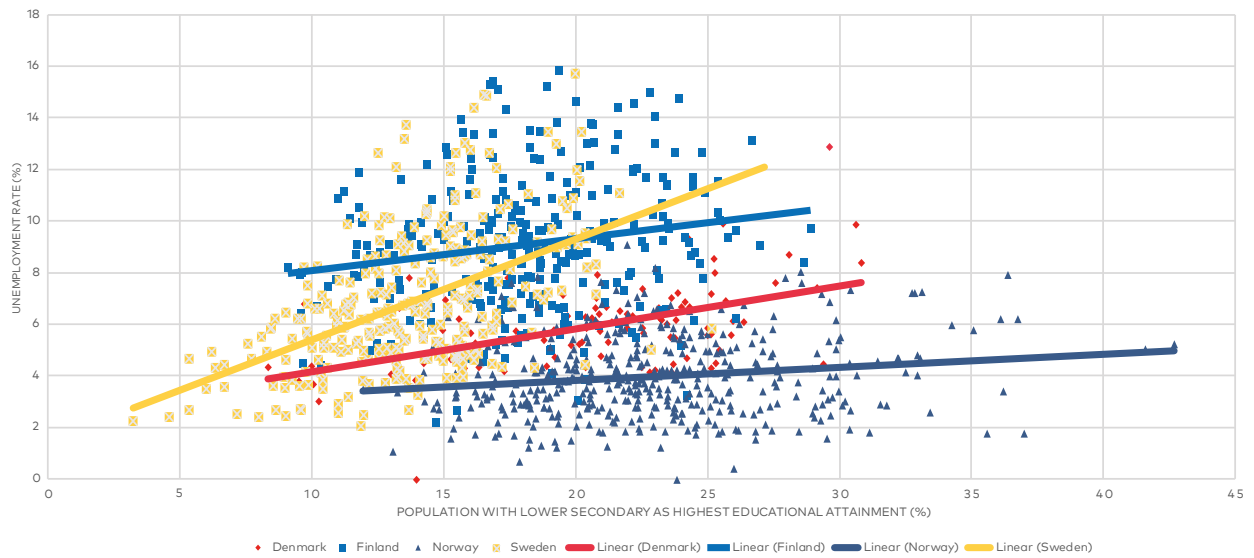


Figure 7.5 Individuals 25–64 years with lower secondary as highest educational attainment level.

Figure 7.6 Relationship between percentage of people with lower secondary as their highest level of education and unemployment rate for Nordic municipalities.



Data source: NSIs, Nordregio database.

of persons with tertiary education can be found in municipalities in the capital regions (25 out of the top 50) as well as in smaller cities with large universities. For example, Lund and its neighbouring municipality Lomma (69%; 66%), in Sweden, Trondheim (55%) and Stavanger (52%), in Norway, and Aarhus in Denmark (51%). While it is of course logical to expect high shares of educated people in university towns, it is also important to acknowledge that the geographical dispersion of these institutes is the deliberate result of a regional policy approach which has been employed in the Nordic countries since the 1960s (Hedin, 2009). Currently, approximately 160 Nordic municipalities have at least one higher education institution⁷ within their borders.

Constant with the situation in Europe as a whole (Eurostat, 2016), the municipalities with the lowest shares of tertiary education in their populations were all rural. They included Qaasuitsup (9%), Kujalleq (9.9%) and Qeqqata (12%) in Greenland, Kivijärvi (15%) in Finland, Iveland (18%) in Norway, Lolland (19%) in Denmark, and Munkfors (19%) in Sweden.

Interestingly, although the Nordic average for tertiary education among the working age population sits well above the EU average (31%), more than half (59%) of Nordic municipalities actually fall below this figure. This suggests that there may be somewhat of a gap between a smaller number of high performing municipalities and the rest. From a gender perspective, females are substantially more likely to have a tertiary education than males in the Nordic Region. In fact, there is only one municipality where the share of the population with a tertiary education is higher among males – Kumlinge in Åland (Nordregio, 2017).

Increasing education levels and the changing needs of the labour market

Nordic labour markets have undergone substantial structural change in recent years as a result of both digitalisation and globalisation. Even in sectors previously characterised by low and mid-

⁷ Higher education institutes are defined here as any kind of campuses or side-branches of a university, a university college, a technical training institute, a nursing school, or other establishments of tertiary education, both theoretical and more practically-oriented.

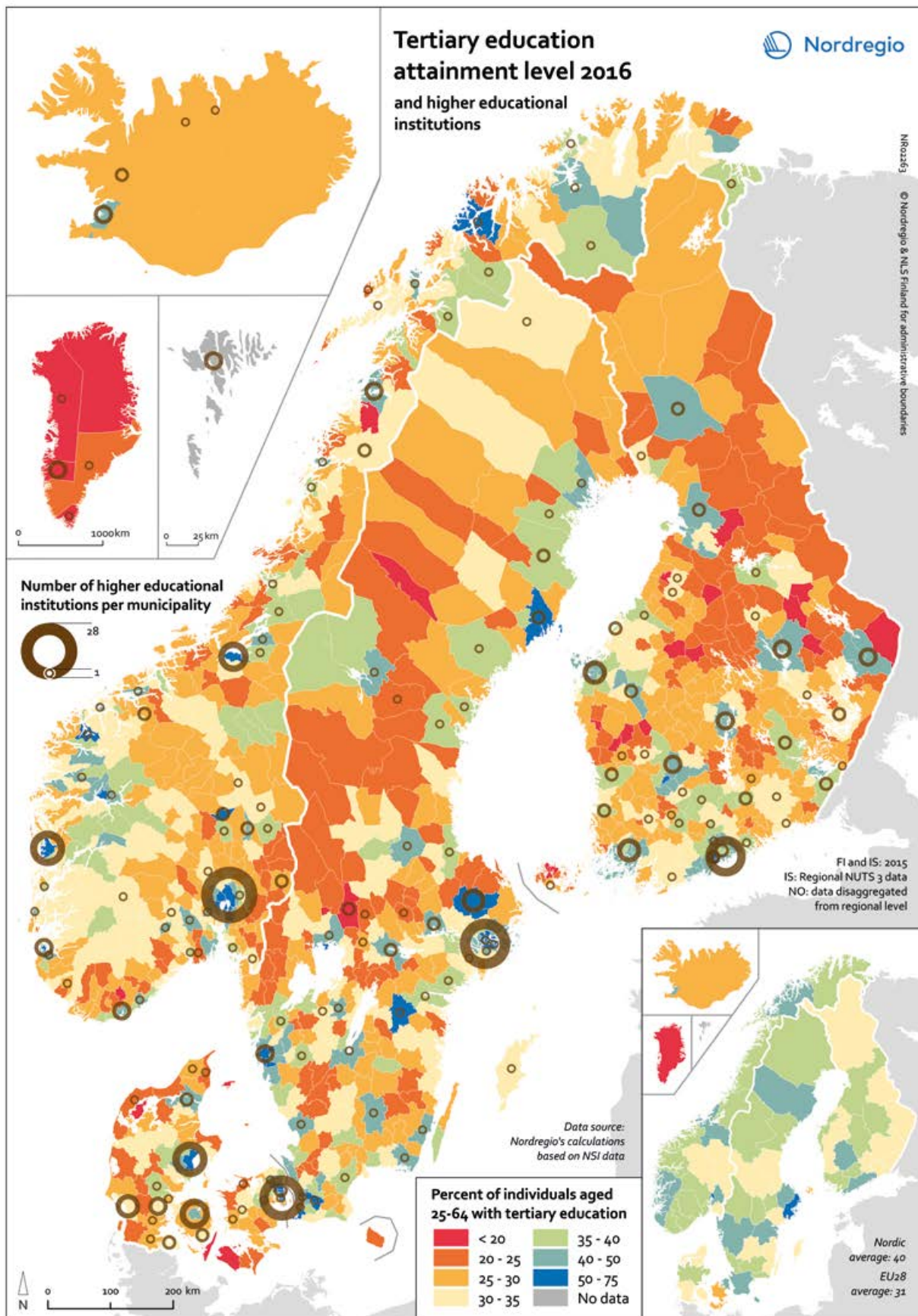
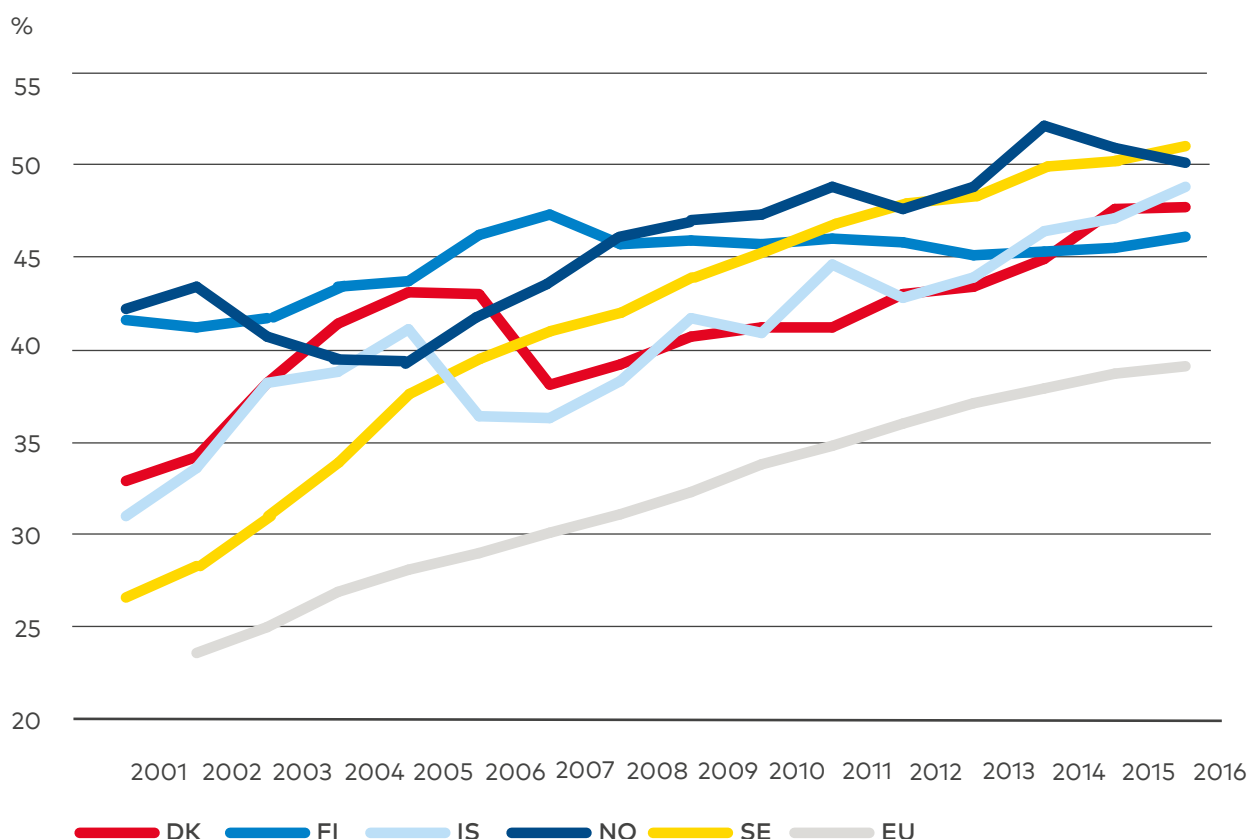


Figure 7.7 Tertiary education attainment level 2016.

Figure 7.8 Population 30–34 years with tertiary education, 2001–2016.



Data source: Eurostat.

For the skilled labour there is an increasing demand for more specialised skills – many of which require a tertiary education (Autor, 2015). In this context, it is perhaps unsurprising that educational attainment levels among the younger members of the Nordic population have increased substantially since 2001. Perhaps more interesting is the different patterns this increase has followed in the different countries. As figure 7.8 shows, the most dramatic change has occurred in Sweden. In 2001, only 27% of 30–34 year olds in Sweden had a tertiary qualification, the lowest share of all the Nordic countries. By 2016, this figure had almost doubled, making Sweden the Nordic country where those aged 30–34 years are most likely to have a tertiary education. These figures represent somewhat of a paradigm shift, brought on by the recession period of the nineties. This period saw an increased focus on innovation, science and education, facilitating the country's

There is considerable regional variation in tertiary education levels, with rates as low as 9% (Qaasuitsup, Greenland) and as high as 73% (Danderyd, Sweden)

transition from predominantly industrial, blue collar state to a frontrunner in the knowledge economy. A similar shift occurred in Iceland after the financial crash in 2008. Finland and Norway have seen the smallest increases over the period, 4% and 8% respectively, though that these were also the countries which had the highest rates to begin with.

It is important to note that these observed increases in education levels do not automatically

Currently, approximately 160 Nordic municipalities have at least one higher education institution within their borders

imply that the changing needs of the labour market are being met, nor that they will continue to be met in the future. Research into new and emerging industries consistently finds attracting skilled people to be one of the key challenges, particularly outside of major cities (Lindberg et al., 2016). Addressing this challenge is a complex process and requires more than simply an increased supply of people with higher education (RegLab, 2014). From a regional development perspective, considerable work is needed to align the available education and training with the constantly evolving needs of regional economies. We see this occurring to some degree through regionally based smart specialisation strategies that seek to align knowledge dynamics and the specific socio-economic, institutional and geographical conditions of regions (Dubois et al., 2017), industry-led initiatives (Mörner & Trippel, 2017), and targeted platforms for assessing the skills needs of regions (Reglab, 2014). Work is also underway to improve validation processes, with a view to easing

the integration of new migrants into Nordic labour markets (Karlsdóttir et al., 2017). While it is too soon to comment on the success of these programs, this is clearly an important and interesting area to watch.

Concluding remarks

Overall, the Nordic Region performs well on education indicators. There is, however, evidence to suggest that some groups are faring better than others. Greater support for young people from immigrant backgrounds will be vital in the coming years. There is also a need to better understand the drivers of early school leaving in order to formulate appropriate policy responses, particularly for young men in rural areas. With respect to the working age population, there is substantial variation in education levels between municipalities, with cities and university towns having larger shares of people with tertiary education and rural areas having higher shares of people with only a basic level of formal education. These trends appear, at least to some degree, to reflect differences in the structure of labour markets between countries and regions. From a regional development perspective, ensuring that education and skills attainment keeps pace with the rapidly evolving needs of local labour markets will be a key challenge going forward.

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