

STRATEGIES TO ADDRESS NORDIC **RURAL LABOUR SHORTAGE**

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SUMMARY

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This report is an outcome of the Nordic '[Strategies to Address Nordic Rural Labour Shortage](https://nordregio.org/research/strategies-to-address-rural-labour-shortage/)^[1]' project, which aims to fill knowledge gaps concerning strategies for addressing rural labour shortages, their regional variations, and the sectors particularly affected by such shortages. The project time frame is 2022–2024.

In order to fulfil the project's objectives, seven academics and public officials have been assigned to produce national outlook chapters on, respectively, Denmark, Finland, Greenland, Iceland, Norway, Sweden and Åland. Additionally, a chapter providing a statistical overview of labour shortages in the Nordic region – particularly its rural dimensions – draws on labour shortage data, maps and analysis provided by the Nordregio GIS-team. Finally, a thematic analysis drawing on the contents of the above chapters attempts to identify commonalities and differences across the Nordics. This concluding chapter includes an overview of the regions and sectors experiencing labour shortages, a catalogue of strategies for addressing such shortages, and direction on how best to enhance policy and better include the rural dimension.

As the results of the report demonstrate, labour shortages are in evidence in areas where vacancies exceed the number of unemployed with the relevant skills. In general, Nordic areas outside the capital regions are more challenged by labour shortages, with a combination of lack of labour (too few people) and lack of competence in the existing workforce being a problem for many – though not all – rural regions. Here, the in-depth knowledge provided by the national outlooks and Nordic overview casts light on the nuances at play, as well as the most relevant pathways for engaging in mutual learning.

1. <https://nordregio.org/research/strategies-to-address-rural-labour-shortage/>

The project identifies six strategies for addressing rural labour shortages in the Nordic Region:

1. Nurture place attractiveness and ensure thriving living environments;
2. Provide education for life-long learning, as well as vocational training for the unemployed;
3. Encourage interregional and international migration;
4. Facilitate collaboration between a broad set of stakeholders;
5. Pursue hybridity, mobility and flexibility (innovations, digital solutions, travelling teams, consultancies);
6. Engage with the silver economy (hiring retirees, pension reforms). In each case, such strategies should be adapted to the region or area at hand.

Overall, the need for local and regional adaptation is clear, with a statistical analysis of employment rates revealing that both the highest and lowest rates are to be found in rural municipalities.

SAMMANFATTNING

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Denna rapport är ett resultat av det nordiska projektet '[Strategier för att hantera arbetskraftsbrist på landsbygden i Norden](https://nordregio.org/research/strategies-to-address-rural-labour-shortage/)^[2]', som syftar till att fylla kunskapsluckor om arbetskraftsbrist på landsbygden, deras regionala variationer, de sektorer som särskilt påverkas av sådan brist och strategier för att hantera arbetskraftsbrist. Projektets tidsram är 2022–2024.

För att uppfylla projektets mål presenteras i rapporten en inledande problemformulering och bakgrund. Därefter följer en statistisk översikt av arbetskraftsbrist i Norden – särskilt dess landsbygdsperspektiv – baserat på data om arbetskraftsbrist. För att få mer fördjupat kunskap, har akademiker och offentliga tjänstemän valts ut för att framställa nationella översiktskapitel om arbetskraftsbrist i Danmark, Finland, Grönland, Island, Norge, Sverige och Åland. Slutligen presenteras en analys, baserad på innehållet i ovanstående kapitel, för att identifiera gemensamma drag och skillnader över Norden. Detta avslutande kapitel inkluderar en översikt av de regioner och sektorer som upplever arbetskraftsbrist i Norden. Här presenteras också en nordisk katalog över strategier för att hantera arbetskraftsbrist och förslag på hur politiker kan bättre inkludera landsbygdsperspektivet.

Som rapportens resultat visar, är arbetskraftsbrist tydlig i områden där antalet tillgängliga arbetsplatser överstiger antalet arbetslösa med relevanta färdigheter. Generellt sett är nordiska områden utanför huvudstadsregionerna mer utmanade av arbetskraftsbrist, med en kombination av brist på arbetskraft (för få människor) och brist på kompetens i den befintliga arbetskraften. Det är ett problem för många men inte alla landsbygdsregioner. Här ger den djupgående kunskapen från den nordiska statistiken och de nationella översikterna värdefulla nyanser. Behovet av lokal och regional anpassning av problembild och lösningar gällande arbetskraftsbrist och arbetsmarknad tydlig. Detta inte minst då en statistisk analys av sysselsättningsgraden i Norden visar att både de högsta och

2. <https://nordregio.org/research/strategies-to-address-rural-labour-shortage/>

lägsta nivåerna av sysselsättning finns i landsbygdskommuner.

Projektet identifierar sex strategier för att hantera arbetskraftsbrist på landsbygder i Norden:

1. Främja platserns attraktivitet och säkerställa blomstrande livsmiljöer;
2. Erbjuder utbildning för livslångt lärande samt yrkesutbildning för arbetslösa;
3. Uppmuntra interregional och internationell migration;
4. Underlätta samarbete mellan en bred uppsättning intressenter;
5. Främja hybriditet, rörlighet och flexibilitet (innovationer, digitala lösningar, resande team, konsulttjänster); och
6. Engagera sig i silverekonomi (anställa pensionärer, pensionsreformer).

Denna katalog av strategier ska ses som inspiration för vidare arbete, där det är av största vikt att sådana strategier anpassas till den aktuella regionens specifika situation, problem och aktörer.



In a study of access to services in rural areas in the Nordics, labour shortages and attracting the right competencies to provide the services was identified as a core challenge. (Photos: iStock and Freepik)

1. INTRODUCTION

Elin Slätmo

Nordregio

Setting the scene

Labour shortages have emerged as a challenge across the Nordic region. In some areas, it has become difficult to attract the right competence – indeed, sourcing adequately skilled people to fill the available jobs has increasingly become a regional development issue. Shortage of labour poses obstacles to regional labour market growth and can contribute to unequal regional development within nations. Moreover, labour shortages in some areas of the welfare system – particularly healthcare, social care, childcare and schools – can place stress on services, be a security risk, provoke dissatisfaction, and limit the extent to which assistance is adapted to the needs of individuals.

While this study is based on the assumption that rural areas are particularly affected by labour shortages, substantial knowledge gaps exist as to the common challenges faced by the Nordic countries and territories, as well as which strategies and solutions have so far been deployed.

Initiated at the behest of the thematic group for Green and Inclusive Rural Development,^[3] this study aims to provide just such an overview through collecting statistical data on regional and sectoral challenges, as well as cataloguing the various strategies currently in use.

Here, it is relevant to point out that the project utilises 'regional' and 'rural' as linguistically helpful concepts for explaining the reality surrounding us. Conceptual dichotomies such as urban and rural therefore represent categories imbued with human meaning, and as such 'regional', 'urban' and 'rural' areas cannot be said to exist in any predefined sense. Rather, such definitions vary according to what is being studied, and its context.

The everyday life of the Nordic region's inhabitants and the geography of work is not, of course, neatly confined to either urban *or* rural areas. As such, it is fruitful to highlight a regional perspective that encompasses both urban *and* rural areas. Not only does a regional perspective hold the potential for exploring the urban–rural linkages formed by mobility flows of physical commuters and digital nomads, it provides an opportunity to investigate how the impacts of policy innovations differ in 'rural' and 'urban' contexts.

Against the above backdrop, the following report sets out to answer the following questions:

1. What regional and rural labour shortage variations exist in the Nordic region?
2. Which regions and sectors are especially challenged by (rural) labour shortages?
3. What strategies and solutions to (rural) labour shortages exist in the Nordic region?
4. How can the strategies used to address labour shortages be better targeted towards specifically rural problems?

3. The Nordic thematic group for Green and Inclusive Rural Development brings together national and regional development representatives/experts to share new knowledge and create added value through collaboration. The group provides input on developing and planning for green, inclusive rural areas across the Nordic region to policymakers/planners at the national, regional, local and cross-border levels. The group is part of the Nordic Co-operation Programme for Regional Development and Planning 2021–2024 and contributes to the Nordic Vision 2030 aim of making the region the most integrated and sustainable in the world. All activities and projects work towards achievement of the United Nations' Agenda 2030 and its Sustainable Development Goals. See: <https://nordregioprojects.org/rural/#>.

The approach taken by the study combines statistical analysis of harmonised Nordic-level datasets with insights from seven Nordic countries/territories. The latter encompasses regional and sectoral labour market challenges, as well as the strategies being undertaken to address labour shortages. These national/territorial outlooks are provided by academic researchers in Denmark, Finland, Iceland, Norway and Sweden, and public officials in the case of Greenland and Åland.

In order to validate the study's initial results, a workshop involving the report's authors, together with members of the Nordic thematic group for Green and Inclusive Rural Development, was arranged for 30 May 2024. The online three-hour workshop incorporated both presentations and interactive discussions in break-out rooms, providing space for the 21 participants to obtain insights, highlight gaps and in collaboration create Nordic added value. Based on knowledge gained from previous studies, the online workshop and the various chapters submitted for this report, an analysis was conducted to identify Nordic-level commonalities, the ultimate purpose of which is to facilitate cross-Nordic learning and provide a 'catalogue of strategies' for meeting rural labour market challenges.

The remainder of this introductory chapter sets out the major trends driving structural rural labour shortages in the Nordic region, as well as the interregional differences in evidence. Following this, a statistical overview chapter highlights the importance of acknowledging the nuances underling regional and rural labour shortages. The next seven chapters then detail the (rural) labour markets of, respectively, Denmark, Finland, Greenland, Iceland, Norway, Sweden and Åland. Finally, the report's concluding chapter provides cross-Nordic insights, a catalogue of strategies for combating rural labour shortages, and overarching conclusions.

Background: Three major trends driving rural labour shortages

The competence needed for a particular job or task can be gained via studies and/or experience. In this context, 'labour shortages' may refer both to a lack of labour (too few people within the relevant geographical area) or a lack of a certain type of labour (too few people with the required skills or competence). While there are a wide variety of reasons underlying the labour shortages faced in Nordic rural areas, three structural megatrends can be identified as having perhaps the greatest impact: 1) demography and decreasing rural populations; 2) the green transition; and 3) digitalisation.

Demography and decreasing rural populations

Not only have rural population numbers across the Nordic region been decreasing over time, an increasing proportion of the remaining rural population has reached or is approaching retirement age. Hörnström et al. (2015), in studying how national-level policies aim to address such demographic challenges in the Nordic countries, highlight that decreasing shares of working age population in many municipalities – due to ageing, as well as populations becoming increasingly concentrated in urban areas – is leading to higher dependency ratios (ratio of non-working population to working population), particularly in sparsely populated areas (see Berglund et al. 2019; Norlén & Randall 2020).

While this points to an overarching trend, it should be caveated by the fact that older adults constitute a diverse societal group, with many in the 65–80 age bracket contributing to the economy both in terms of being an affluent consumer group and performing a variety of (informal and volunteer) activities, responsibilities and tasks (Slätmo et al. 2022; Stjernberg et al. 2021).

Green transition

There is strong support for ensuring the green transition currently underway in the Nordic region is just (Lundgren et al. 2023; Salonen 2024). With this in mind, the transition's impacts on the labour market and jobs are generally taken into consideration by the Nordic countries' respective climate councils. Even so, future scenarios, new jobs and skills-needs concerning the green transition are difficult to estimate, as they are dependent on strategic political choices (Lundgren et al. 2023).

In order to understand how people are impacted by climate change and the green transition, a survey was conducted in 2022 involving more than 5,000 respondents from the Nordic countries and territories (Tapia et al. 2023). The survey's results show, among other things, that 31% of the Nordic population think initiatives aimed at combating climate change will help create new jobs in their area.

The survey also indicates that residents of Iceland, Denmark and Sweden are especially likely to expect efforts to tackle climate change to bring economic benefits, while fewer such respondents worry about potential job losses. Conversely, residents of Finland and Norway are more likely to be concerned about the economic and labour risks of climate policies. In addition, men, people with lower educational attainment, those working in carbon-intensive industries, and residents of rural areas are less likely to expect economic benefits to arise from climate action, and more likely to be concerned about related job losses (Tapia et al. 2023).

Digitalisation

Digitalisation presents both opportunities and challenges for rural areas (Wendt-Lucas et al. 2024). If more activities, work tasks and services can be performed using digital tools and solutions, then this will likely increase the availability of services in rural areas across the Nordic region. In this regard, mitigating long distances via digital delivery offers a key opportunity for secure, safe service provision in sparsely populated areas (Slätmo et al. 2022).

Provided the necessary infrastructure is in place, digitalisation also enables increased remote working from rural locations (Bogason et al. 2024). Here, lack of digital services in some rural areas due to poor (or non-existent) broadband and/or cell-phone reception compared to urban areas has been termed a 'digital divide'. Moreover, people who cannot access the internet risk exclusion if all societal services turn digital.

Finally, it should be highlighted that offices and service points have social value. It is therefore seen as important to maintain, alongside digital facilities, in-person services and physical meeting places (Slätmo et al. 2023).

The problem: Interregional differences in Nordic labour markets

Nordic labour markets display a number of variations, both between and within countries. Although not a core focus of the study, it is relevant to point out that in some urban and rural areas there are too few jobs due to shortages in the market, rather than there being a shortage of workers. As the results presented in the Finland, Denmark and Iceland chapters demonstrate, enhanced investments in rural entrepreneurship, as well as moving public sector jobs from capital regions to rural areas, can have a positive impact in combating this challenge.

Nevertheless, the report's primary remit is to explore (rural) labour shortages in the Nordics, a problem characterised by: 1) a shortfall in the absolute number of potential workers; 2) a shortfall in the number of people with the relevant competence/skills to perform the jobs available; and 3) discrimination and predefined ideas on the part of employers regarding the skills and people they are seeking. This multi-pronged challenge is illustrated in Figure 1.1.

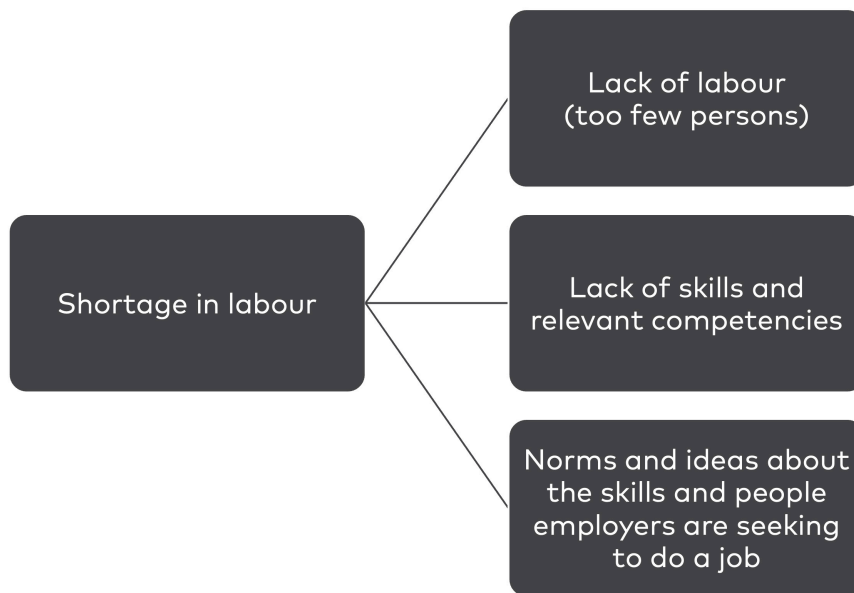


Figure 1.1. The problem of (rural) labour shortages in the Nordics

In a study of access to services in Nordic rural areas by Slätmo et al. (2023), labour shortages, especially in terms of attracting the right competencies, were identified as a core challenge.^[4] Kinnula (Finland), Suðuroy (Faroe Islands), Múlaping (Iceland) and Herøy (Norway) were highlighted as regions facing particular difficulties when it comes to finding skilled workers, while Avannaata (Greenland) has found it hard to source both skilled labour and untrained workers. In Åland and Vimmerby (Sweden), labour shortages mostly affect schools and healthcare. Elsewhere, in Lolland (Denmark), respondents pointed to the relatively large share of inactive inhabitants (either unemployed, not in the education system or on early retirement benefits) as a key challenge.

These diverse results indicate that the sectors affected, along with the competence, education and types of skills required, vary widely between Nordic region's rural areas. Thus, in order to learn more about these variations – as well as commonalities – the report now turns to a statistical overview of the Nordics.

4. The study was based on workshops, literature reviews, policy and statistical analyses, and 56 interviews in eight municipal case study areas. The case study areas – one in each Nordic country/autonomous territory – were as follows: Denmark, Lolland municipality; Finland, Kinnula municipality; Faroe Islands, Suðuroy region; Greenland, Avannaata municipality; Iceland, Múlaping, municipality; Norway, Herøy municipality; Sweden, Vimmerby municipality; and Åland, Geta municipality (Slätmo et al. 2023).

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The high demand has led to higher rates of employment, including in groups that have previously had less contact with the labour market, such as people born abroad. (Photos: iStock and Platform/Scandinav/Imagebank.sweden.se)

2. STATISTICAL OVERVIEW

Gustaf Norlén and Kamila Dzhavatova

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Introduction

This chapter provides, through descriptive data and results from previous studies, an overview of labour shortages in Nordic rural areas and the causes underlying them. Having set out its methods, the chapter outlines the state of the labour market in the wake of the COVID-19 pandemic, before moving on to the drivers of labour shortages and labour market mismatching. Next, the chapter explores which regions and sectors have been most affected by labour shortages. Finally, the chapter concludes with summarising remarks.

Methods

In analysing the labour shortages faced by rural areas in the Nordic region, the chapter draws on various data from official sources (mainly statistical offices in the Nordic countries and Eurostat), as well as scientific and brown literature. Given that definitions and data collection methods vary between countries, the relevant data has been harmonised to make it comparable. For example, in Sweden and Finland population is measured as of 31 December, while for the other Nordic countries 1 January is used. Thus, in the interests of comparability, Finland's and Sweden's population data for 2022 (31 December) is designated as 2023 (1

January). The Labour Force Survey, which is the official source for labour market statistics, is the only source comparable across the countries. In order to make municipal-level assessments, register data has been used as a distribution key.

Challenges to measuring labour shortages

Labour shortages arise from mismatches between supply and demand in the labour market. While it is fairly easy to map the supply of labour, measuring demand is more challenging. The most common measures, such as job vacancy ratios and Beveridge curves, look at unemployed persons vs vacant positions. These are imperfect measurements, as not all jobs are publicly announced and not all people outside the labour force are unemployed (i.e. actively searching for a job). Moreover, they are difficult to scale down to the local level.

As well as measuring the current situation, policymakers need a means of predicting future labour shortages. One way of doing so is through surveys sent out to companies. In this respect, all the Nordic countries have barometers in place to estimate future labour demand. In addition, some regions within countries undertake their own prognoses. These national and regional assessments look at – among other things – retirements and which sectors may require more workers going forward. Demand for labour does not, however, necessarily translate into concrete plans for recruitment, with issues of cost and priorities potentially coming into play.

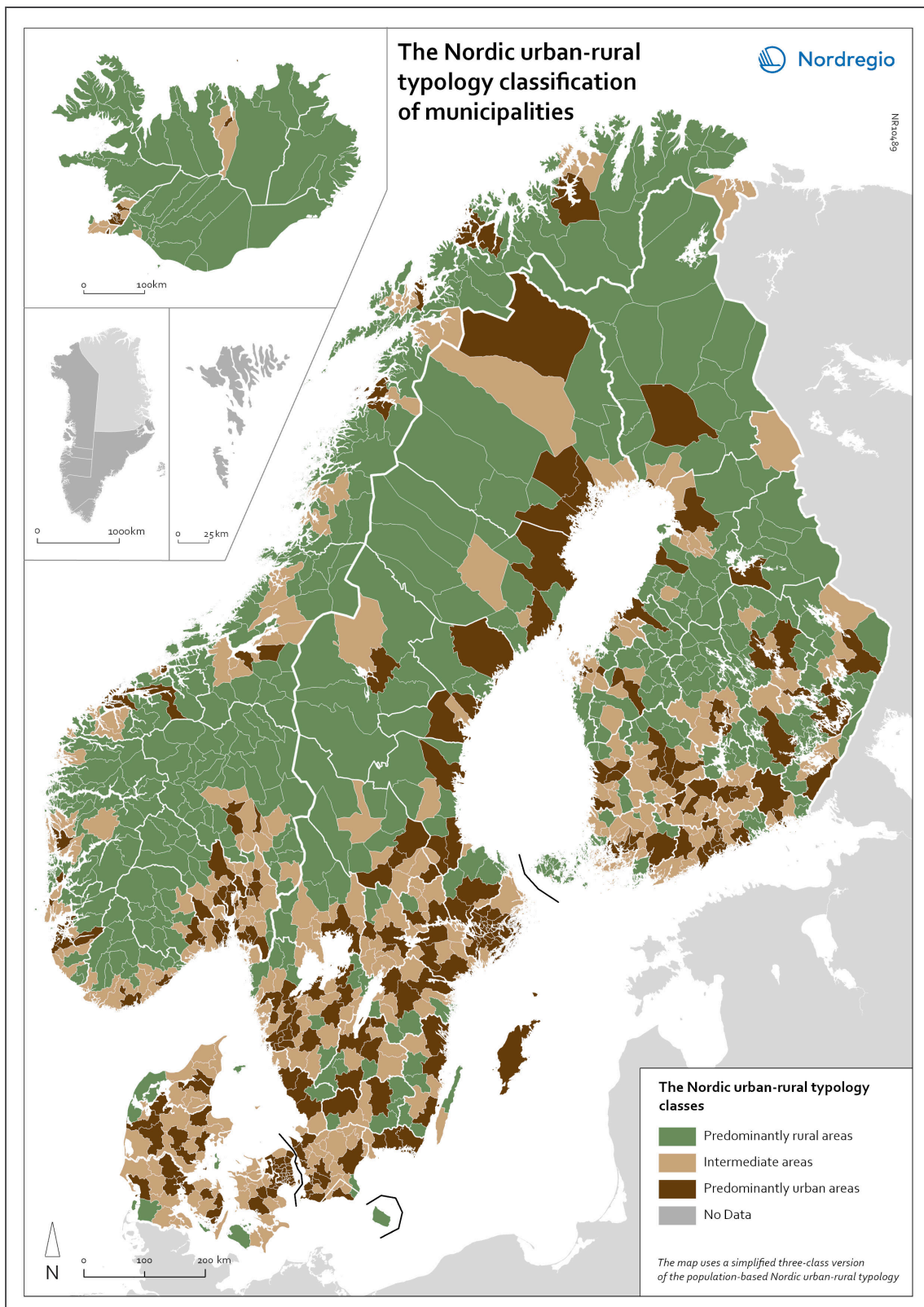
As there is no single simple measure of labour shortages, the chapter employs triangulation to approach the topic from different angles. It also looks at both short- and long-term demand, making use of literature and other studies to examine relevant causes.

What do we mean by rural labour markets?

The subject of this report is labour shortages in *rural* areas. Defining 'urban' and 'rural' areas is, however, no easy task and often dependent on the topic in hand. Nevertheless, in order to discuss rural areas using data, a definition is required. At the European level, the main way of distinguishing urban from rural areas is the degree of urbanisation (DEGURBA) classification by Eurostat (2023), which divides regions into three classes: 1) mostly rural; 2) intermediate; and 3) mostly urban. Although this classification is made to work at a European level, it is not optimal for the different geographies of the Nordic region.

Nordregio has therefore developed a typology for the Nordic region using open grid statistical data on population, building density and land-use intensity derived from CORINE land-cover data (Stjernberg et al. 2024).^[5] This classification utilises seven categories based on an area's degree of urbanity and rurality, ranging from inner urban areas to sparsely populated rural areas. The typology has also been scaled up to the municipal level, and a simplified three-class version employed in this report that is comparable with the DEGURBA classifications (see Map 2.1).

5. The fine-scaled typology can be found at: <https://nordictypology.ubihub.io/>.



Map 2.1. Nordic urban–rural typology in three classes.

It should be noted that the possibility of commuting often means local labour markets extend beyond municipal borders. Thus, people living in a rural municipality may in fact work in an urban municipality (Borges 2020). Moreover, an urban municipality in a remote region may face different challenges in terms of finding competencies compared to an urban municipality in the capital regions. Similarly, a rural municipality in a predominantly rural area will have different challenges and opportunities compared to a rural municipality in a predominantly intermediate or urban area.

Labour shortages after the pandemic

The Nordic labour market after COVID-19

Like the rest of the world, the Nordic labour markets were severely hit by the effects of the COVID-19 pandemic, which disrupted both supply (due to interruptions in the supply chain) and demand (resulting from lockdowns and changes in consumer behaviour). This in turn led to changes in work behaviour (remote working) and increased unemployment, although furlough schemes and government support meant the latter could to some extent be mitigated (Norlén et al. 2022).

The main impact of the pandemic on employment was confined to the first wave of COVID-19 in spring 2020, after which labour markets recovered. Since the pandemic, the number of people in employment has reached record highs in all the Nordic countries, as well as in Greenland and the Faroe Islands. In total, there are more than 14 million people in work in the Nordic region (Forslund 2024; Norlén 2024).

Figure 2.1 shows the employment rates for the age group 20–64 between 2005 and 2023. As can be seen, there was a fairly steep decline in most countries during the first wave of the pandemic in early 2020, followed by a quick rebound in what has been called a ‘v-shaped’ recovery (during the following quarters of 2020). By comparison, the recovery from the 2008/2009 financial crisis was much slower. Employment rates in Denmark, Finland, Sweden, Greenland and the European Union (EU) as a whole all reached their highest levels in 20 years in the wake of the pandemic, while employment rates in Norway and the Faroe Islands are almost back to their pre-pandemic peaks. It is also worth noting that the proportion of people over 65 in work is rising as well.

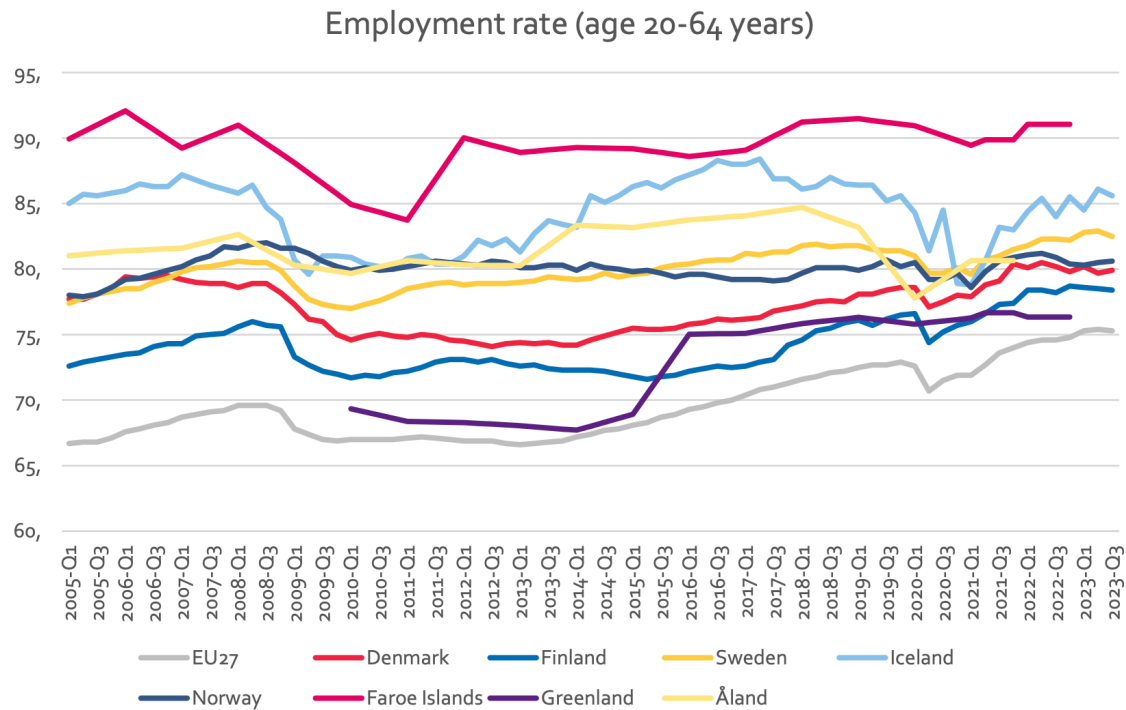


Figure 2.1. Employment rate (20–64 years), Q1 2005–Q3 2023.

Source: Eurostat and NSIs (Labour Force Survey, except GL and AX).

High employment rates in the third quarter of 2023 point to the strong demand for labour after the pandemic, not only in the Nordic region but across all Organisation for Economic Co-operation and Development (OECD) countries (Causa et al. 2022). These higher rates of employment include groups that previously had less contact with the labour market, such as people born abroad (Konjunkturinstitutet 2023).

Here, it should be stressed that labour shortages are not specifically a Nordic issue – indeed, many OECD countries have reported labour shortages (Causa et al. 2022). Neither is it a specifically rural issue. On average, employment rates in the Nordic region are higher in rural municipalities (81.3%) than in urban municipalities (80.2%), although the highest employment rate is to be found in intermediate areas (82.1%). These high and relatively even employment rates indicate high demand for labour.

Demand for labour

As previously mentioned, labour shortages are difficult to measure. One indicator that can provide a rough overview is the job vacancy rate, which is expressed as a percentage and indicates the level of demand for labour in relation to the available workforce. A high job vacancy rate suggests employers are having difficulty finding suitable candidates to fill open positions, potentially indicating a tight labour market. Conversely, a low job vacancy rate suggests a surplus of labour or lack of demand for new hires. The measure demonstrates why labour shortages have recently become a hot topic: after a short dip during the pandemic, job vacancy rates increased rapidly in all Nordic countries.

As shown in Figure 2.2, in all countries except Norway the job vacancy rate peaked in 2022, then declined in 2023, albeit remaining at a higher level than prior to the pandemic. High inflation has led to an economic downturn, and although it is not yet visible in employment statistics, there are early signs of increased unemployment, especially in sectors such as construction and trade (Regeringskansliet 2023; SSB 2024; Valtioneuvosto 2022). When it comes to Norway, the country has had a fairly high job vacancy rate in most years since 2010, indicating a structural imbalance between labour supply and demand.

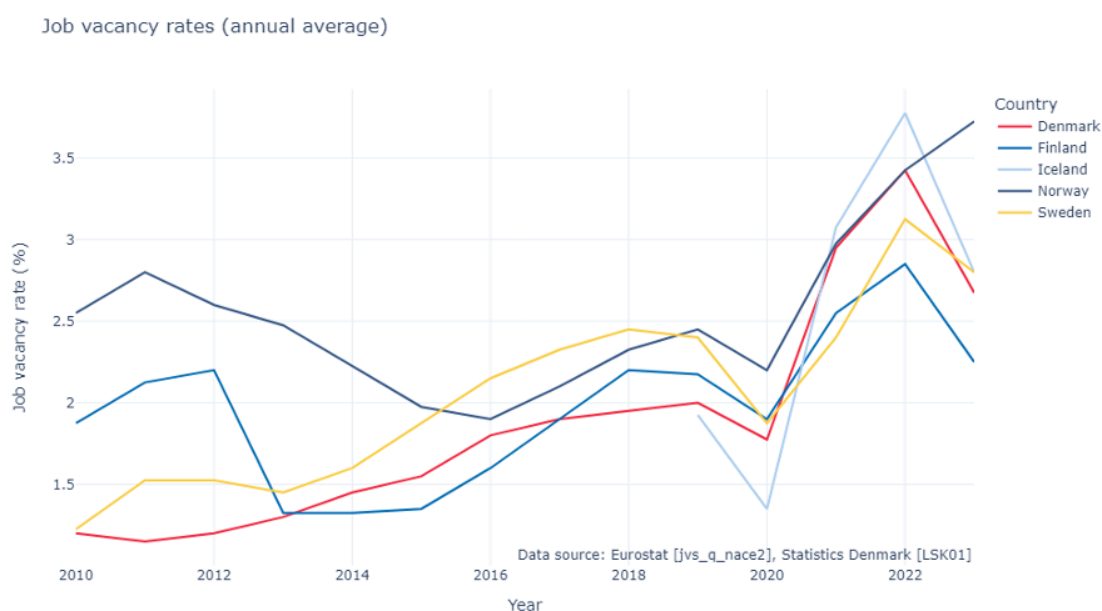


Figure 2.2. Job vacancy rates (annual average).

Source: Eurostat and Statistics Denmark.

Causes of labour shortage

Not only do the employment and job vacancy rates point to why labour shortages have been such a hot topic following the pandemic, they indicate that such shortages have both short- and long-term causes. The short-term causes are related to economic cycles. In general, companies strive to avoid layoffs, meaning economic downturns tend to have a delayed effect on the labour market (Duval et al. 2011). Over recent decades, the Nordic countries gone through several downturns in the economy (e.g. Sweden's monetary crisis in the 1990s, the financial crisis in 2008 and the COVID-19 pandemic in 2020–2022/2023), each of which has led to increased unemployment. In between these crises, there have been periods of high employment and labour shortages.

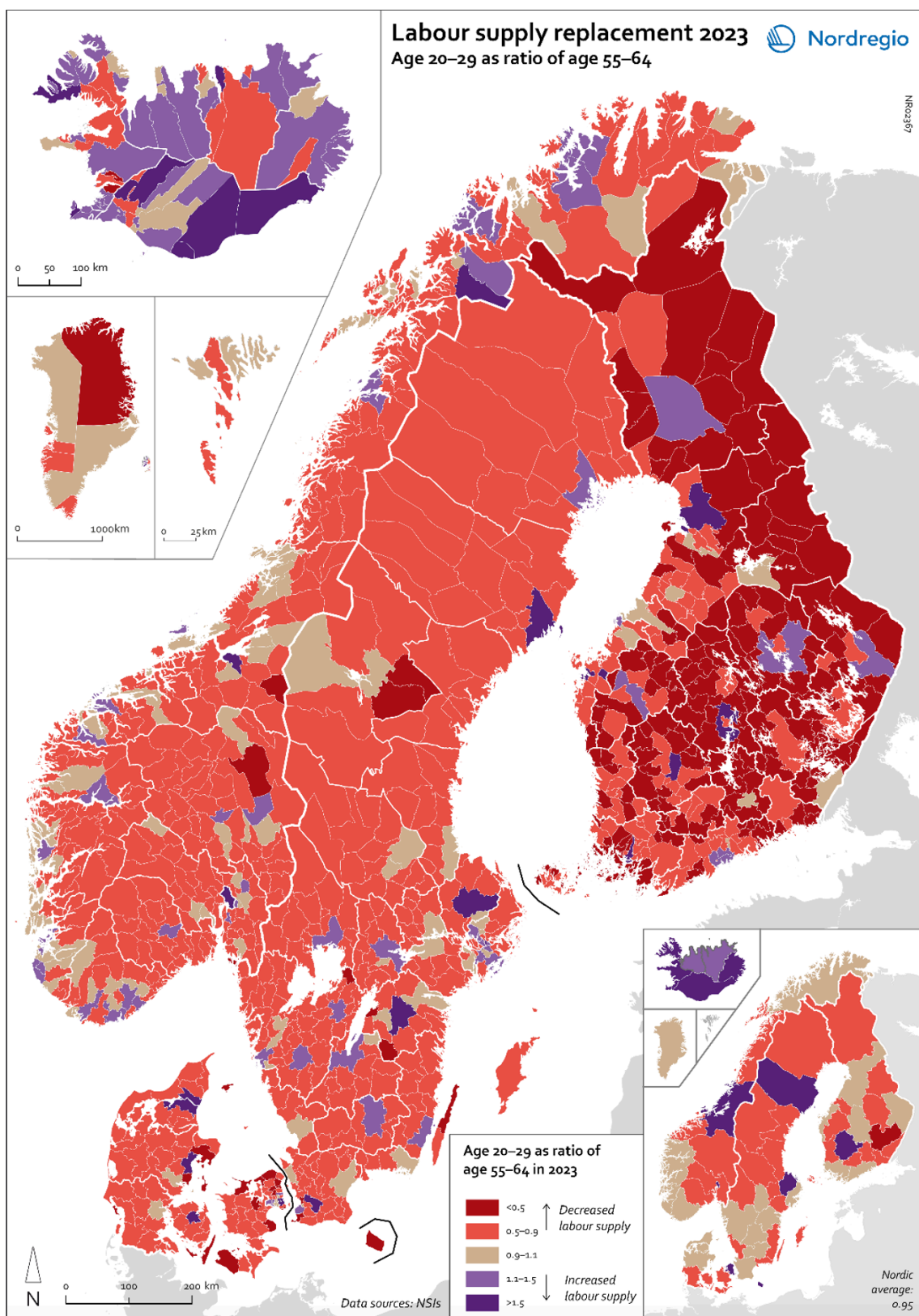
The long-term causes of labour shortages relate to megatrends affecting the labour market (Alsos & Dølvik 2021; ILO 2017), such as demographic and technological change, climate change/green transition, and globalisation. The following sub-sections elaborate on how these megatrends relate to labour shortages.

Demographic factors

Demographic change – mainly manifested in the form of an ageing population and ongoing urbanisation – is perhaps the most starkly apparent megatrend impacting the labour market. It also demonstrates how place matters, as urbanisation affects urban and rural areas in very different ways. While the challenge for rural areas is to retain and increase their labour forces, the challenge for urban areas is to accommodate and plan for increased populations.

Most municipalities in the Nordic region currently have fewer people entering the labour force than leaving it. Map 2.2 shows the ratio between age groups 20–29 and 55–64 at the municipal (big map) and regional (small map) level. A ratio of less than 1 means fewer people are entering than exiting the labour market, while a ratio of more than 1 indicates the opposite. As such, a ratio above 1 is desirable at both the municipal and regional level.

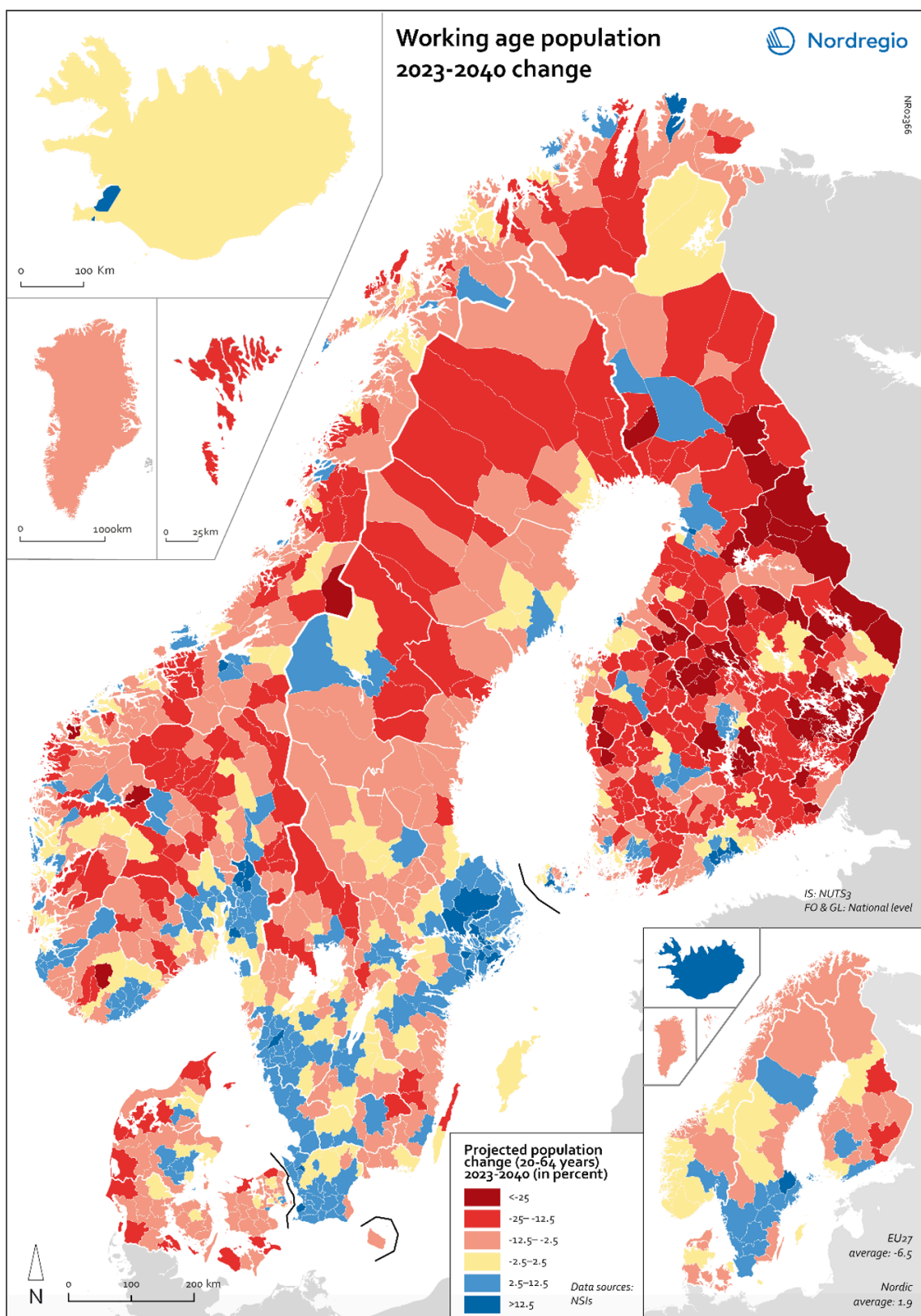
For the Nordic region as a whole, the ratio is 0.95, meaning there are slightly fewer people in age group 20–29 than 55–64, with Iceland the only country with a ratio above 1 (Iceland 1.3; Greenland 0.99; Denmark 0.97; Norway 0.95; Finland 0.94; Sweden 0.93; Faroe Islands 0.88; Åland 0.63). All the Icelandic regions, as well as the capital regions of Norway, Denmark and Finland, have a ratio above 1. In Sweden, the highest ratios are in Uppsala (1.25), Västerbotten (1.14) and Östergötland (1.03), while the ratio in Stockholm is below 1 (0.95). The lowest ratios are found in Etelä-Savo (0.62) and Åland (0.63) in Finland; Sjælland (0.63) in Denmark; Västernorrland (0.74) in Sweden; and in Vestfold and Telemark (0.78) and Viken (0.77) in Norway.



Map 2.2. Labour supply replacement 2023.

The key implication arising from Map 2.2 is that, going forward, most municipalities and labour markets will struggle to maintain the required levels of labour supply. This conclusion is reinforced by the projections for population change in working age population (here defined as aged 20–64). Map 3, which sets out the projected changes by 2040, shows that the distribution is quite varied, with considerable differences between and within countries. The biggest increase in share of working age population in 2040 is expected in Iceland (28%), followed by Sweden (5.8%), Åland (3.9%) and Norway (0.6%). Decreases are expected in Finland (-0.5%), the Faroe Islands (-2.6%), Denmark (-3.2%) and Greenland (-11.4%). This development comes on top of the decreases already experienced by Finland since 2013.

In general, the trend of growing populations in cities and decreasing populations in rural areas is expected to continue through to 2040. The regions expected to have the highest working age population growth in the Nordic region include Uppsala (+13%), Stockholm (+12%), Skåne (+9%), Halland (+7%) and Västra Götaland (+6%) in Sweden; Uusimaa (+8%) and Pirkanmaa (+5%) in Finland; and Oslo and Viken in Norway (+5%). In Denmark, Copenhagen municipality (+5%), as well as Rødovre (+9%) and Vallensbæk (+6%) in Hovedstad region, are expected to see significant increases, while the working age populations in most municipalities in the Hovedstaden region will decline. Greenland, along with the Finnish regions of Satakunta, Etelä-Karjala, Kainuu, Kymenlaakso and Etelä-Savo, are all expected to see a more than 10% decrease in their working age populations by 2040. Across the Nordic region as a whole, rural municipalities are projected to undergo a 5.8% decline in labour supply. By contrast, urban municipalities will see 7.3% growth in their working age population, and in intermediate municipalities the labour supply will remain stable.



Map 2.3. Working age population, projected change over the period 2023–2040.

In the main, the changes in labour supply depicted in Maps 2.2 and 2.3 affect rural areas negatively. At the same time, the process of ageing affects labour demand, as an ageing population leads to increased demand for workers in the health care and care sectors (Lundgren et al. 2020). While dealing with an increasingly ageing population is a pressing issue across the Western world, it affects rural areas more than urban areas.

Figure 2.3 shows the old-age population between 2000 and 2023 for the Nordic region by degree of urbanisation. In 2000, the ratio was 22 for urban areas, 26 for intermediate areas and 32 for rural areas. By 2023 it had increased to 29 for urban areas, 39 for intermediate areas and 48 for rural areas. This means that in rural areas there are on average two people of working age for every person aged 65 or more. There are, however, regional differences. In Finland, the ratio for rural areas is 62, and there are even rural municipalities with a ratio above 100, meaning there more people aged 65 and above than there are people of working age.

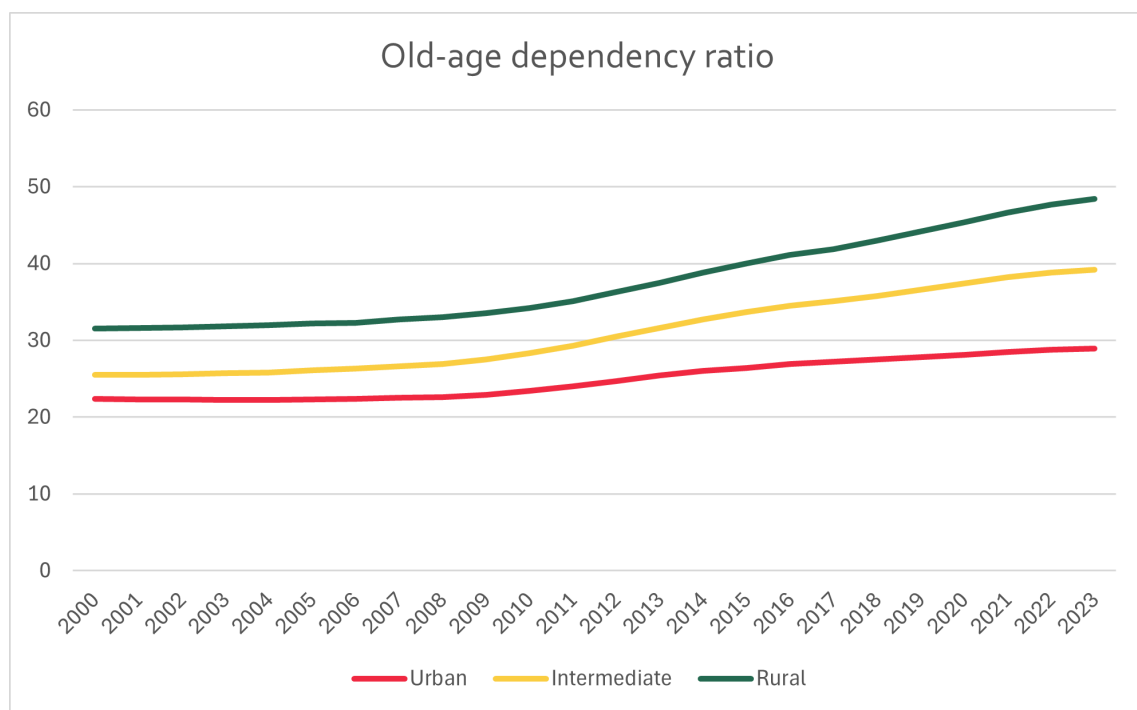


Figure 2.3. Old-age dependency ratio 2000–2023, Nordic average.

Source: Eurostat and NSIs (Labour Force Survey, except GL and AX).

Note: Old-age dependency ratio is the ratio between people aged 65+ as a share of the population aged 15–64 (as a percentage). The Nordic typology has been used for classification of urban–rural.

Although old-age dependency ratio is a common indicator for measuring the extent to which a population is ageing, it should be noted that a growing share of the population is working beyond official retirement age and contributing in many ways to their local economies. Also, effects on healthcare mainly relate to higher ages (Stjernberg et al. 2021).

In sum, demographic change is leading to a decreasing labour supply and an increased ageing population in most rural areas. This means there is less labour available for companies to hire, alongside rising demand for health care and care.

Automation, artificial intelligence and digitalisation

Technological change is another longstanding megatrend. Recent developments in automation, artificial intelligence (AI) and digitalisation have, however, led to talk of a Fourth Industrial Revolution, and will likely have geographical implications. Although job displacements due to automation and AI have been discussed, this has yet to become reality to any great extent (Grunfelder et al. 2020).

Developments in this area do, however, mean that new skills are required, and puts pressure on the industry to renew itself in order to stay competitive. As such, a skilled workforce is required. In this respect, there is a greater share of people with higher education in urban areas (51%) than in rural areas (32%). Moreover, there are more high-skilled jobs in urban areas.

Nevertheless, digitalisation and automation could be an opportunity for rural areas in the sense that it may facilitate services and businesses without the need for the same number of workers (Slätmo et al. 2022, 2023). Digital tools can also be used in the care sector (Lundgren et al. 2020), while increased working remotely may provide new opportunities, both in attracting residents and workers (Bogason et al. 2024).

Green transition

The green transition, while currently in an early phase, promises to impact all areas of the labour market. During this transition, new jobs will be created, jobs dependent on fossil fuels be reformed or phased out, and skills in existing jobs may change (Vandeplass et al. 2022). Although it is too early to say with confidence how the transition will play out, there are a number of geographical implications.

Firstly, there is a higher share of 'green jobs' (according to the current classification of such roles) in urban areas than in rural (e.g. OECD 2023). Conversely, there is a higher share of 'polluting' jobs in rural areas. Explanations of the higher share of 'green jobs' in urban areas include the fact that the green transition is in its initial stages, meaning there is demand for new skills and innovations. This in turn demands a skilled workforce (OECD 2023).

Considerable investment is also being made in 'green industrialisation', much of which is taking place outside the capital regions for example in the north of Sweden (Danbolt 2023; Wallin 2021). These investments mainly apply to sectors such as green steel, battery production and mining.

In 2023, Norway launched a 'Green Industrial Initiative' designed to give the country a leading role in green innovation and investment. In Denmark, meanwhile, there are plans for big investments in offshore wind power, with similar initiatives also underway in the other Nordic countries. These investments are expected to stoke demand for vocationally trained workers, but the effects will not be evenly distributed geographically. At the same time, Refsgaard et al. (2021) show that the new bioeconomy is set to make an important contribution to the Nordic region's economies, especially in rural areas.

Skills mismatch

A skills mismatch occurs when there is a high vacancy rate and high unemployment rate at the same time. Some labour shortages can be explained by such mismatches. Unemployment rates tend to vary between the Nordic countries, partly due to the different rules and systems in place for receiving unemployment benefits and support. For example, the unemployment rate is higher in Sweden and Finland than in the region's other countries, indicating a higher mismatch. According to Forslund (2024), there are, however, no clear signs that mismatches have increased since the COVID-19 pandemic.

Foreign born people from non-EU countries tend to be overrepresented in the Nordic countries' unemployment figures. Since the pandemic, though, a greater proportion of people from this group have entered employment – in 2022, the group's employment rate was the highest in 20 years (Norlén 2024).

There are also educational mismatches that occur when people work in areas they have not been trained for. The digital shift and green transition mean new skills will be needed. Over the past 20 years, educational planning in the Nordic region and the EU has primarily focused on academic education, with the result that an increasing share of the population has a tertiary education. There has not, however, been a comparable emphasis on vocational training or life-long learning. This is problematic given that many of the in-demand jobs in rural areas require vocational training rather than an academic education (Maersk & Norlén 2024).

Shifting labour demand between regions may also lead to geographical mismatches in skills. The north of Sweden, where green transition investments require a big influx of labour, already bears evidence of this. At the same time, there are a considerable number of unemployed in other parts of the country.

Regional and rural variations of Nordic labour shortage

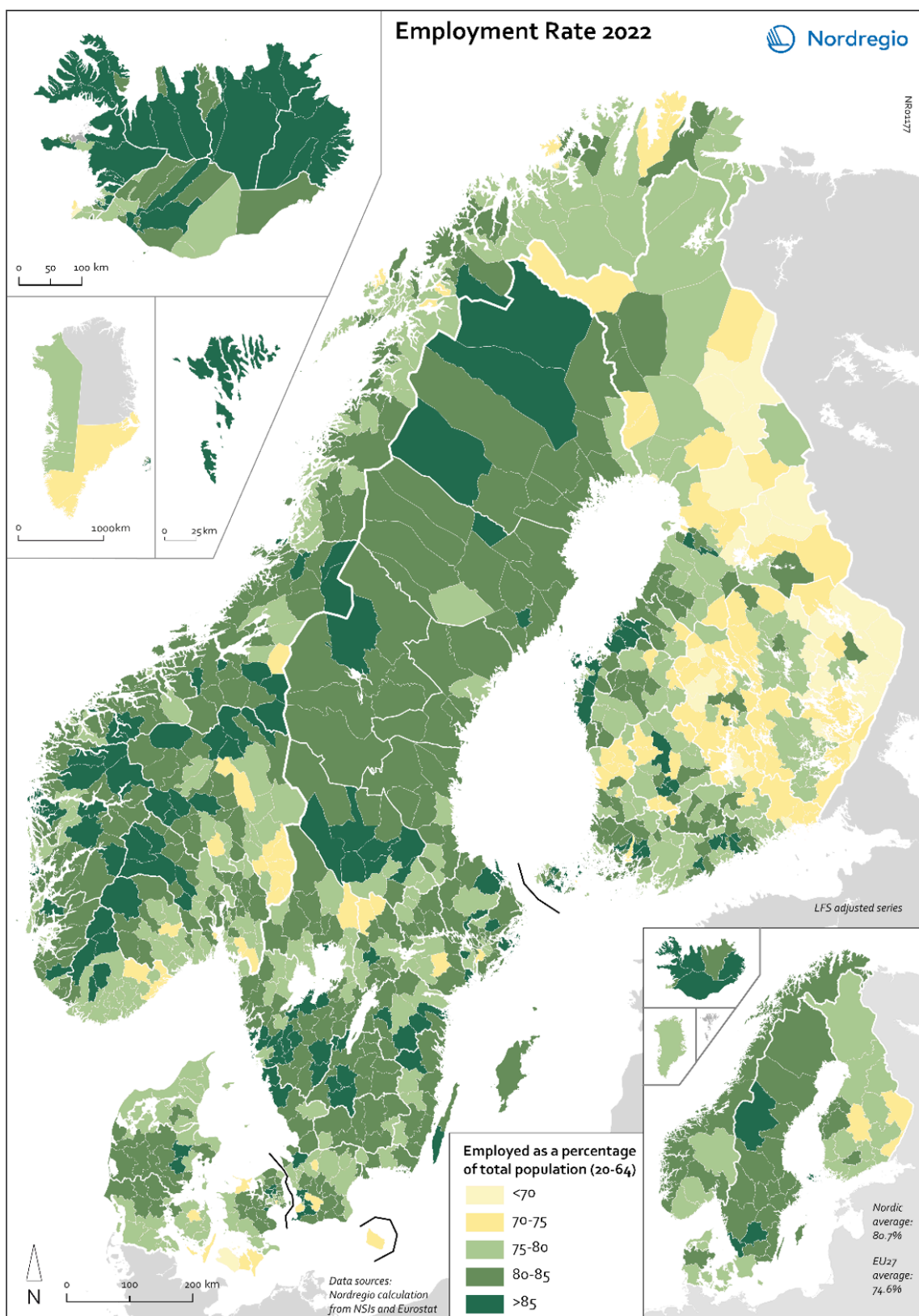
Regional variations

As has been mentioned, there is no one single indicator used for labour shortages, making it difficult to state with any certainty where labour shortages are most pronounced. Nevertheless, employment rates can be used as a rough proxy, as a high employment rate indicates a tight labour market.

Map 2.4, which displays the employment rate (i.e. share of people aged 20–64 in employment as of November 2022), reveals differences both within and between countries. Employment rates have long been lower in Finland, and higher in Iceland, Faroe Islands and Åland, compared to the rest of the Nordic region. Interestingly, both the highest and lowest employment rates can be found in rural municipalities. The Faroe Islands enjoy the highest employment rate (above 90%), with similarly high rates seen in most of Iceland's rural municipalities, as well as in Lumparland, Kumlinge, Lemland and Jomala in Åland, and some smaller municipalities in Trøndelag and Vestland in Norway.

There are numerous rural municipalities with an above 85% employment rate, including several municipalities in Österbotten in Finland (e.g. Närpiö and Nykarleby), municipalities in the Swedish regions of Norrbotten, Dalarna and Östergötland, and in several smaller municipalities in Norway. An employment rate above 85% in practice means full employment, as there will always be people in the relevant age bracket outside the labour force (e.g. those who are sick or studying).

At the other end of the spectrum, most of the municipalities with the lowest employment rates are rural, including municipalities in the Finnish regions of Pohjois-Savo, Kainuu and Pohjois-Karjala, as well as Lolland in Denmark. The fact that rural municipalities display both the highest and lowest employment rates is partly explained by their small populations, as just a few individuals can make a big statistical difference. In addition, rural municipalities are generally more dependent on a single industry and so are more affected should said industry face disruptions.



Map 2.4. Nordic region employment rates, 2022.

Occupations and sectors affected by labour shortage

In order to investigate whether any sectors are disproportionately affected by labour shortages, we reviewed the national assessments on skills needs for Denmark, Iceland, Finland, Norway and Sweden.

A projection in Denmark concludes there will be a shortfall of 99,000 vocationally trained workers in 2030, alongside a surplus of 59,000 academics. This shortfall is mainly related to retirements, and will affect the health care sector especially, as well as professions in industry, agriculture and trade (AE 2021).

In Finland, 75% of the occupations expected to face shortfalls in workers are in the health care and social sectors, with nurses, social work specialists, teachers, doctors, psychologists and dentists highlighted. Staff shortfalls are also anticipated within the restaurant sector and industry (Työ- ja elinkeinoministeriö 2022).

In Iceland, increased demand for healthcare workers (specifically, a 30% increase – 50% for doctors – by 2035) is again spotlighted as an issue (SAMAK 2022). Conversely, demand for unskilled workers is expected to decrease, while vocational occupations such as carpentry, mechanics and masonry are set to experience a lack of workers (EURES 2022).

In Norway, jobs requiring vocational training within the manufacturing, building and construction sector, as well as health care workers and nurses, are highlighted as areas facing labour shortages. On the other hand, supply is expected to outstrip demand for many jobs requiring an academic education, partly due to the fact that relatively few people in these roles are likely to retire in the short term. Moreover, the green transition implies lower employment in the petroleum industry, which is expected to affect demand (Cappelen et al. 2020).

As elsewhere, Sweden anticipates worker shortfalls in the health care sector, especially in terms of specialist nurses. Teachers, engineers and people with computer skills are also expected to be in demand going forward. Turning to jobs of a more vocational training nature, the biggest shortfalls are expected in health care and industry (SCB 2022).

Based on the above overview of sectors, there is a clear need for healthcare professionals, particularly nurses and specialist doctors, across all five Nordic countries. Additionally, vocational trades – such as mechanics, carpenters and other industrial occupations – are expected to undergo significant shortages. By contrast, sectors requiring an academic education – such as engineering and computer skills – show more mixed demand, with some countries anticipating surpluses in these fields. The green transition and demographic changes, including retirements, also have crucial roles to play in shaping future labour demand.

Concluding remarks

Rural labour markets – which are often smaller and less economically diversified than their counterparts in more urban areas – face distinct challenges, including a decreasing supply of labour and ageing populations. Even so, there are significant variations, with some rural municipalities experiencing the highest national employment rates, and others the lowest.

A number of megatrends present both obstacles and opportunities when it comes to labour shortages, their respective impacts dependent on factors such as the policies pursued by government and territorial capital. On the other hand, the occupations in greatest short-term demand – particularly in the health sector and industry – are not necessarily those associated with megatrends. Instead, the focus is primarily on replacing retirees.

Many believed the tightening of labour markets seen across the Nordic region in the wake of the COVID-19 pandemic would continue indefinitely. In recent months, however, there has been a slowdown in most of the Nordic countries.

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NATIONAL OUTLOOKS

In the following chapters, national outlooks for the five Nordic countries (Denmark, Finland, Iceland, Norway and Sweden), as well as the autonomous regions of Åland and Greenland, are presented. Each chapter includes an overview of rural labour shortages, regional variations in labour shortages and strategies, and potential solutions to the issues faced.



Looking at expected labour shortages in rural areas of Denmark the biggest challenges are in farming, tourism, restaurants, and manufacturing.
(Photos: Freepik and Unsplash)

3. DENMARK

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Introduction

Labour shortages are a key economic and political issue in Denmark, both in terms of ensuring the necessary labour is available to avoid short-term loss of growth, and ensuring employers can access the skills needed to adapt to longer-term megatrends such as the green transition and digitalisation (Bak et al. 2022). With its small open economy, Denmark has generally performed well according to key economic indicators. Growth levels have bounced back following the Covid-19 crisis, driven in particular by strong international exports although over the past year or so this element has mostly been down to a handful of large corporations in the pharmaceutical (notably Novo Nordisk) and transport (notably Mærsk) industries. While the growth of these large companies has prevented Denmark's economy from entering recession (DØRS 2024), it has increased economic vulnerability to shifts in regulation or demand (OECD 2024). Unemployment, meanwhile, has generally remained low, indicating the capacity of the Danish 'flexicurity' model characterised by high levels of flexibility for employers, high levels of security for employees, and high levels of support in finding new roles (Ilsøe & Larsen 2023: 3) when it comes to maintaining labour force competitiveness. The most important flexicurity mechanisms are activation and upskilling; low hiring and firing costs; and a flexible wage-bargaining system. The latter involves negotiating wages through collective agreements that nevertheless leave room for firm-level discussions,

thereby providing scope for responding to changing economic circumstances (Bredgaard & Madsen 2018).

Relatedly, employment in Denmark has reached record-breaking levels, prompting concerns about labour shortages in both the public and private sector. In the public sector, shortages are particularly acute in health and long-term care (nurses, social and health assistants) – exacerbated by a rapidly ageing population – as well as other parts of the welfare sector (e.g. pedagogues, teachers). In the private sector, labour shortages are experienced most intensely in the information and communication technology (ICT) and service sectors (OECD 2024: chap. 2).

Although immigration as a potential means of addressing labour shortages has featured more prominently in recent political debates, labour shortages are more commonly addressed through reforms that increase domestic labour supply (e.g. limiting student allowances, shortening graduate programmes) or the supply of relevant skills (e.g. promoting vocational skills, welfare education programmes, ICT skills).

Many of these national-level labour shortage issues are also pressing concerns in rural areas. As the following section argues, labour shortages are an important problem in both the private and public sectors, with employers struggling to find workers with the right skills. These problems are only expected to intensify over the coming years. One key difference when it comes to urban and rural areas, however, is their respective economic structures. While growth and employment in the aggregate economy is driven by the private service sector and knowledge-based production – which is strongly represented in urban areas, particularly Copenhagen (Hansen & Winther 2012) – when it comes to rural employment, it is farming, fishing, manufacturing industry and tourism that are more important (DØRS 2015). This also means the sectors that have, on aggregate, seen the strongest employment growth in the Danish economy are not well represented in rural areas (Manniche & Hansen 2023).

In terms of economic development and employment, rural areas rely on sectors characterised by weaker growth than those centred in cities and the Capital Region (Eriksson et al. 2017). Moreover, long-term centralisation trends have led to rural areas experiencing a decrease in public employment levels. Particularly important in this respect was a major 2007 reform that merged 271 local municipalities into 98 larger municipalities, and 13 regional counties into 5 major national regions (Larsen 2024). Recent figures presented by the Economic Council of the Labour Movement (AE 2023) show that employment in Copenhagen has increased by 25% since 2008, while, conversely, employment levels in Western and Southern Zealand and Western Jutland are lower than in 2008. Relatedly, VIVE (2020) argues that the downturn following the 2008 financial crisis substantially accelerated 'double urbanisation' firstly, the citizens of a municipality are increasingly moving to the larger cities within that municipality in search of jobs and education, and, secondly, citizens are

increasingly moving into larger urban municipalities based around regional growth centres.

Although employment across the Danish economy has now been restored to pre-2008 levels, there remain significant differences between rural and urban areas, with stronger employment growth in the largest cities (Ministry of Cities, Rural Areas and the Church 2023: 20). In particular, job creation has been most pronounced in and around Copenhagen (Manniche & Hansen 2023: 54–55). Thus, whereas some urban areas have experienced a 20–30% increase in the number of work places over the period 2008–2018, some rural areas have seen a corresponding 15–25% decrease (VIVE 2020: 1–2; see also Larsen et al. 2023: 126).

Regional and rural labour shortage variations

The most recent available figures indicate that employers experience failed recruitments at about the same rate in the Capital Region (23%) as in most other parts of Denmark (e.g. 25% in Northern Jutland, 21% in Western Jutland and 27% in Southern Jutland) (STAR 2024). They also show that the sectors with the highest aggregate failed recruitment rates are: hotels and restaurants (34%); construction (32%); retail (26%); and industry (25%).

Research on rural labour shortages in Denmark is generally very limited. In this section, we mainly draw on the quantitative analyses conducted by Larsen et al. (2023), which evaluate the extent of labour shortages in rural areas and specific economic sectors. Data for these analyses came from Statistics Denmark and covered the years 2014–2019. Projected labour shortages are calculated for 2025.

What regional and rural labour shortage variations can be seen?

Larsen et al. (2023) confirm that farming, forestry and fishery, as well as manufacturing, is best represented in rural municipalities. Given Denmark's strongest employment growth has taken place in other sectors – notably ICT, services and construction – it comes as little surprise that rural areas have not experienced employment growth comparable to municipalities with large cities or situated close to Copenhagen (Larsen et al. 2023: 22). Larsen et al.'s analysis (2023) indicates that projected labour shortages will be largest in rural municipalities, with Western Jutland hardest hit, while municipalities with large cities or that are in/near Copenhagen will have a small surplus of labour. Here, expected falls in labour supply due to retirement and relocation will have an outsize impact on rural municipalities.

Which regions and sectors are particularly affected by rural labour shortages?

Larsen et al.'s (2023) analysis suggests that, in the aggregate, the largest projected labour shortages will be in construction and health, with all parts of Denmark expected to experience shortages. Conversely, surpluses are expected in the food, furniture and metal industries, as well as in finance and insurance. In terms of expected labour shortages in rural areas, the biggest challenges lie in farming, tourism and hospitality, and manufacturing.

Why rural labour shortages?

As stated above, Larsen et al. (2023) point to three sectors particularly hard-hit by labour shortages in rural municipalities: farming, hotels and restaurants, and manufacturing. Although their analysis does not allow for systematic testing of potential causes, they do offer explanations as to why this is the case. In farming, they argue that industrialisation of activities into a high-technology export sector has changed the profile of those employed in the sector, leading to reduced tolerance for demanding working hours and conditions. Moreover, the farming sector is part of international supplier and distribution systems, and so less locally anchored. Foreign labour is more frequently used compared to the rest of the Danish labour market, but even so the sector struggles to attract the necessary number of workers (Larsen et al. 2023: 120).

In the tourism sector, which has contributed significantly to the economies of many rural municipalities over recent years (Ministry of Cities, Rural Areas and the Church 2023), hotels and restaurants are struggling to find qualified employees, particularly trained chefs and waiters (Larsen et al. 2023: 128). This is the case nationally, with hotels and restaurants hardest hit by labour shortages (STAR 2024), a challenge attributable to the low education levels generally required of those in the sector, rendering it susceptible to competition from rival sectors. Moreover, the sector's working conditions – seasonal work, unstable and shifting working hours, and low wages – often make recruitment difficult. According to Larsen et al. (2023: 121), the Covid-19 pandemic has made it even more difficult to recruit young people and foreign workers.

Construction also struggles to fill positions. Despite having seen weaker (although still significant) rural employment growth compared to the other two sectors mentioned, the shortage of vocationally trained people is so large that rural municipalities are particularly when it comes to construction (Larsen et al. 2023: 102). A similar problem applies to industrial manufacturing companies in rural municipalities – while the category covers a variety of companies, they all tend to depend on vocationally skilled labour that is becoming increasingly difficult to attract (Larsen et al. 2023: 87).

What are the main causes of short- and long-term labour shortages?

Larsen et al. (2023) do not specify any causes for the projected labour shortages. In this section, therefore, we draw on insights from relevant researchers, think tanks and organisations to outline four explanations – broadly related to urbanisation, economic development, demographic changes and centralisation of the public sector – for labour shortages in rural areas in Denmark. Although we present them separately, it should be stressed that these developments are interrelated in multiple, complex ways.

Urbanisation and rural migration

In Denmark, as in most other advanced economies, the structural shift towards a knowledge economy has promoted a strong tendency towards urbanisation (Eriksson et al. 2017). Given that the economic sectors experiencing the greatest employment growth are generally sited in and around large cities, particularly Copenhagen, it is unsurprising that people – not least young people – are drawn towards these areas. According to figures provided by the Ministry for Cities, Rural Areas and the Church (2023: 6), 70% of the municipalities positioned relatively far away from large cities have experienced a decline in population. Migration away from rural areas typically takes the form of double urbanisation, with residents moving to the largest urban area in the municipality, as well as the largest cities in the country. Coupled with falling birth rates, this has led to a steady decrease in Denmark's rural population. This in turn presents difficulties when it comes to maintaining basic functions in rural localities, including providing companies with a stable supply of labour.

This is not to say that no one is migrating to rural areas. In terms of those moving in this direction, however, a net increase in people with relatively weak labour market attachment, lower education levels and long-term benefit recipients can be observed (Ministry of the Interior 2021). One possible reason driving migration towards rural areas is lower housing expenses, a supposition supported by Aner and Hansen (2014), who argue that such moves tend to happen more frequently during periods of economic crisis, with a key motivation being the lower deposits demanded by the private rental market. Along similar lines, the Ministry of Cities, Rural Areas and the Church (2021) writes that 'the further away from the capital area and Aarhus, the lower the income of the migrants'.

Of course, people with higher education do also move to rural areas. Aner and Hansen (2014) identify three groups of people within this category most likely to make this move: 1) the newly educated; 2) rural migrants with young children; and 3) mid-career people aged 40 or more. Broadly speaking, each of these groups is driven by different motivations: the first move to gain a job that can kickstart their

career; the second move in pursuit of more housing space; and the third move in order to achieve a less stressful, perhaps more nature-oriented, lifestyle.

It is also worth noting that recent research has indicated a 'counter-urbanisation' tendency (Nørgaard et al. 2023). Andersen et al. (2022: 17), for example, observe that 'counter-urban migrants who move to the periphery are not decisively different from anyone else who moves', and that the number of people with higher education moving to rural areas from cities has increased by 60% between 2005 to 2020. They also suggest that public workplaces being relocated to outside Copenhagen has been important in promoting this development.

Business policy and economic development in favour of a knowledge economy

A recent paper by Manniche and Hansen (2023) argues that Danish business policy has unintentionally placed rural areas at a disadvantage. Given that Denmark – along with other advanced economies – is transitioning from an industrial economy to a knowledge economy dependent on specialised skills and innovation, the country's business strategy has been directed at promoting an institutional and economic infrastructure conducive to this development. With most such industries based in and around large cities, however, this approach has led to increasing economic inequality along geographic lines.

Danish business policy has concentrated on supporting particularly competitive sectors, niches or areas of specialisation (Nørgaard & Brendstrup 2010), with the most recent reform of the system for business promotion ('*erhvervsfremmesystemet*' in Danish) (Erhvervsministeriet 2018), dividing responsibility up between the national and local (municipal) level. However, the 13 business areas designated as particularly promising based on an assessment of their technological productivity only represent a relatively small proportion of the country's employment. While some of these areas are relevant to rural areas (e.g. food production, tourism and hospitality), most speak to urban economic structures (e.g. finance and fintech, robot and drone technology, digital technology, animation). This narrow focus on particularly competitive industries has meant a lack of comparable support for business areas of particular importance to rural areas. In the words of Manniche and Hansen (2023: 63), 'The national business and innovation policy have not contributed to geographically balanced development, as its allocation of support funds has unintentionally favoured the largest urban areas with greater innovation capacity'.

Demography: Low birth rates and small generations challenge rural labour supply

Another driver of labour shortages, particularly going forward, is the decreasing number of young people in rural areas. As noted by the Ministry for Cities, Rural Areas and the Church (2023: 7), there are still more births than deaths nationwide,

but 'In most municipalities further away from the larger cities, there is a deficit of births, meaning more deaths than births occur'. Moreover, AE (2019) shows that in many rural areas the number of births fails to compensate for the large numbers of young people migrating to cities and the number of people leaving the workforce. This trend is only likely to be exacerbated in coming years by a more general national tendency towards smaller birth cohorts (Larsen et al. 2023). This poses a challenge to youth education institutions (e.g. vocational schools, gymnasiums), which will find it increasingly difficult to attract enough students (Ministry of Cities, Rural Areas and the Church 2021: 11). A recent analysis by SMV Danmark (an organisation representing the interests of small and midsize Danish companies) argues that, 'In 83 out of the country's 98 municipalities, there will be fewer young people aged 15 to 19 by 2038. For more than a third of the municipalities, they are even projected to lose at least 15 percent, while 12 municipalities are set to lose at least 20 percent' (SMV Danmark 2023: 3).

Education as a driver of migration

Research shows that education is a key driver in the migration of young people from rural areas (DØRS 2015: 247; Nørgaard et al. 2022: 31). Analysis by Andersen (2017) suggests that 20% of those who leave rural areas in connection with education move back within three years of having completed their studies. This encompasses some variation between education groups: 25–30% of those with a vocational education, 20% of those with a medium-length education, 15% of those with a Bachelor's degree and approximately 10% of those with a longer higher education, return. The study also shows that more women than men with a higher education return to their hometown municipality. Moreover, the further the distance and the longer the stay away from the home municipality, the less likely an individual is to return. In sum, while rural municipalities are generally adept at getting young people through secondary education ('*ungdomsuddannelse*' in Danish), they rarely benefit from doing so. Instead, many young people leave behind the rural areas they originate from as they progress further in the education system.

As argued above, dissuading vocationally trained workers from migrating away is crucial for rural areas. In this respect, Larsen et al. (2021) observe that an important determinant of whether people leave their rural municipality is not where they go to school, but where they do their apprenticeship. In addition, rural municipalities primarily retain skilled workers who grew up and were educated in the local area, while struggling to attract skilled labour from outside (Larsen et al. 2021). Thus, approximately 80% of employed skilled workers residing in a peripheral municipality in 2017 grew up in the same or a neighbouring municipality. Larsen et al. (2023: 19) conclude that peripheral, rural municipalities face a significant problem, as they 'have a high proportion of young people who choose a vocational education, but due to lack of access to school, apprenticeships, and perhaps also

jobs, they end up leaving the local area while they are still in education'. Overall, this suggests that the ability of peripheral municipalities to attract skilled workers from outside is severely limited (Nørregaard et al. 2022: 31).

The importance of retaining education institutions in rural areas has also been documented in analyses indicating that more than 80% of graduates from vocational schools and approximately 75% of graduates from business academies remain in the region they completed their education (Danske Regioner 2016). Analysis by DAMVAD Analytics (2018) shows that around 40% of students attending institutions in Copenhagen, Aarhus, Odense and Aalborg have been attracted from outside areas to the respective city, with 72% of newcomers staying on once they have completed their education. Moreover, just over half the newcomers to medium-sized cities still live there one year after completing their education. Despite education being such an important driver in the migration of young people from rural to urban areas, the Council of the Labour Movement (AE 2021) documents that while in the mid-1990s there was at least one short- or mid-level education institution in 62 of today's 98 municipalities, by 2018 this was only the case for 44 municipalities. In the context of vocational education, debates about the quality of education point to the challenge of some rural schools having too few teachers and students, suggesting a need to limit the number of schools (Voldby 2022).

Strategies and solutions

What national and/or regional policies are in place to address the labour shortage challenges outlined in the previous section? Below, the strategies and solutions currently being pursued in Denmark's rural areas are presented.

Efforts by municipalities to attract people to rural areas

Rural labour markets are challenged by significant outward mobility in relation to education. At the same time, rural companies struggle to attract employees, particularly those who are vocationally trained (Larsen et al. 2023: 12). One response from rural municipalities has been to develop policies and infrastructures aimed at attracting citizens.

Nørregaard et al. (2022), having conducted a survey of every Danish municipality, reveal that almost all the country's rural and peripheral municipalities have a settlement strategy or initiatives designed to entice newcomers. The study also shows that 'where previously the focus was primarily on attracting more residents to the municipalities, the focus is now more motivated by the desire to attract labour' (Nørregaard et al. 2022: 79). Relatedly, Ærø & Andersen (2017) point out that several municipalities have sought to attract a target group already familiar with

the region and municipality. This is supported by the responses to Nørregaard et al.'s (2022: 31) survey, which indicate that approximately a third of municipalities aim to attract young people who previously lived in the municipality.

In attempting to attract citizens, municipalities collaborate with external parties such as companies, educational institutions and housing associations. Key tools include: '1) website with information for potential domestic newcomers and likewise 2) website with information for potential foreign newcomers, 3) settlement consultant(s), 4) newcomer/trial housing, 5) marketing campaigns, and 6) participation in education fairs' (Nørgaard et al. 2022: 21).

Securing education institutions in rural areas

There has been broad political recognition that rural areas are suffering from centralisation and migration towards cities. As such, a number of initiatives have been launched over recent years aimed at promoting education opportunities in rural areas. In May 2021, the Danish government presented 19 such initiatives, for example setting a goal that 60% of study places in four major welfare education programmes (nurse, school teacher, pedagogue, social worker) should be located outside the largest cities by 2030. This is to be attained through both the relocation of existing study places and the creation of new ones. Another of the initiatives is to relocate university study places to areas outside the large cities, supported by more favourable funding and limits on the uptake of students at large city universities.

Relocation of state institutions

In 2015, the Danish government announced that 3,900 state jobs in the capital would be relocated to other parts of the country, with the aim of being 'closer to citizens and companies'. The decision reflected an attempt to address what was a very uneven distribution of state jobs. As noted by Larsen (2024: 1): *'if we look at the nearly 12,000 new state jobs that were created in Denmark in the period 2008–20, 98% were located within the country's four largest urban districts (Copenhagen, Aarhus, Odense, Aalborg), whereas, during the same period, approximately 900 state jobs were lost in the rest of Denmark'*.

In 2018, the reallocation of a further 4,000 jobs was announced. Ultimately, 7,927 state jobs were reallocated, equating to about one-fifth of all state jobs in the Capital Region (Larsen 2024: 2). In many cases, the relevant institutions were state agencies (or parts of agencies). In their study of the effects of the relocations in two cities (Esbjerg and Ringkøbing-Skjern), Schmidt et al. (2021: 6) find that they had 'very limited, or no, effect on private employment', and that 'there are few – or no – signs that either multiplier or displacement effects are dominant'. It is also worth noting that these jobs were moved to cities rather than rural areas, potentially promoting migration to the largest conurbations in rural municipalities.

Interest organisation Balance Danmark points out that during the period of state job relocation, an even larger increase in the number of state jobs situated in the capital and its surrounding areas has taken place, suggesting the relocation has failed to achieve the rebalancing it aimed for. Balance Denmark (2023: 6) conclude that *'The development in the geographical distribution of state jobs from 2015 to 2023 shows a massive underlying centralisation alongside the relocations'*.

Labour market substitution

One solution to rural labour shortages that has garnered attention over the past two decades is the substitution of skilled labour with highly educated labour. The basic premise is that the skills shortages experienced by companies can at least partly be addressed by employing highly educated graduates – of which there is an excess – rather than training up those who are already employed. The idea has gained particular traction in debates about how best to support the skills needs of small and midsize companies, although knowledge on the effectiveness of this strategy when it comes to tackling labour shortages remains limited (Jespersen & Klindt 2021).

In their study of substitution efforts in eight small and midsize companies, Jespersen and Klindt (2021: 12) conclude that capacity for substituting labour is positively related to the size of a company. This is because smaller businesses typically have a shorter planning horizon, which limits the time and space available for the internal training often necessary for substitution. Also relevant is how open a company's approach to recruitment is. If a company has very specific skill demands, substitution is not a viable option, whereas companies that are, in principle, more 'open' have an easier time substituting labour.

Fjalland and Hegelund (2021), based on their work in Skive and Esbjerg, discuss substitution's potential as a strategy for attracting labour by companies outside the major urban centres (although it should be noted that Esbjerg is the fifth largest city in Denmark). One key challenge is that many companies lack a proactive approach, instead waiting for potential higher education recruits to make an approach and demonstrate their relevance. Here, the active work of higher education institutions in demonstrating their graduates' relevance to a broader segment of companies is important. The employability of university graduates would be further strengthened by exposure to relevant companies during their studies.

In addition to the above, companies highlight the following factors as conducive to employing university graduates (Fjalland & Hegelund 2021: 46):

- Better visibility of educational programmes and the specific tasks graduates can solve;
- Easier access when it comes to collaborating with researchers and students; and
- More transparent access to the university (i.e. clarity about where to go and who to call/write to in the event a company is interested in recruiting recent graduates).

Conclusion: A coherent strategy with a local outlook

The issue of rural labour shortages is relevant to two pressing agendas in Danish politics. Firstly, there is a broader debate about labour shortages in the country's economy, both in the short and especially long term. Secondly, there is increasing political contention concerning the growing divergence between large cities – especially Copenhagen – and rural areas. Despite the issue's political importance, uncertainty persists on how – or even whether – it can be addressed over the longer term given the structural pressures working against sustained economic development in rural areas.

A key challenge in this regard is the complexity of the problem. As has been pointed out, rural labour shortages are in large part due to structural shifts caused by multi-faceted demographic and economic changes, the outcomes of which are difficult to predict. Building a coherent policy strategy therefore requires critical thinking across a range of policy fields (which at present are often kept in silos), as well as the ability to fend off other societal interests that place less emphasis on rural development.

At the same time, it is important to acknowledge that different rural areas face significant variations in the problems faced, with some areas actually flourishing. This suggests that while significant resources should be made available to address rural labour shortages, they will need to be adjusted to the geographical setting in question. It also points to the necessity of engaging a diverse range of stakeholders in developing solutions to the broader structural challenges faced.

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Lack of labour in the care sector applies all over Finland. In sparsely populated rural areas a specific feature is the shortage of seasonal workers, e.g. in wild berry-picking. (Photos: iStock and Maud Lervik/norden.org)

4. FINLAND

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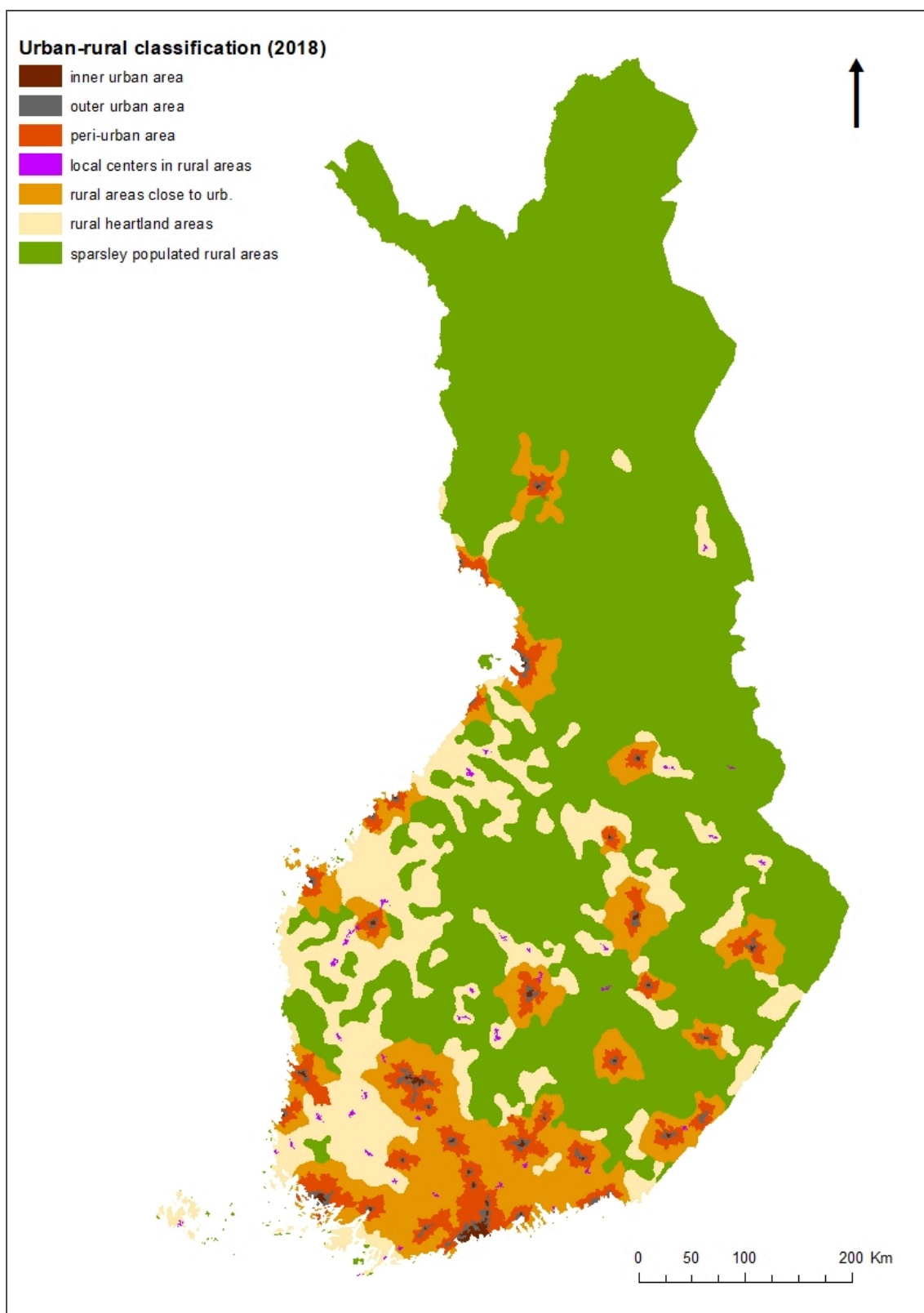
Introduction

This chapter explores labour shortage variations in Finnish rural areas, with special attention paid to the disparities between different types of rural area. Against this backdrop, the chapter analyses the solutions being pursued by national and regional authorities, as well as strategies adopted at a community and company level.

Finland's national labour market

The single most important factor in Finland's economy and national labour market is the country's ageing population. While this represents an issue for the entire country, it is the rural population that is – proportionately speaking – the eldest (see Table 4.1).

Nevertheless, it is important to acknowledge just how extensive Finland's countryside is, with different areas varying considerably in terms of climate, distances, population and economic structure. In particular, the contrast between those rural areas close to urban areas and other rural areas is in many respects bigger than the difference between urban and rural areas generally. With this in mind, this chapter follows the national regional typology (SYKE 2018; see Map 4.1), adopting a comparative approach to the three rural area categories: 1) sparsely populated rural areas; 2) core rural areas; and 3) rural areas close to urban areas.



Map 4.1. Finnish urban–rural classification, 2018.

Source: SYKE (2018).

Labour shortages are not necessarily a sign of having too few or the wrong type of workers, nor of their inadequate quality or passivity. Rather, it may refer to a lack in (business) management and leadership.

According to the latest Labour Force Barometer (autumn 2023), most of Finland suffers from a labour market mismatch (Ministry of Economic Affairs and Employment 2023a, 2023b). The greatest shortage of labour is in the health and social services sector, where skilled workers are needed to provide care for older people in particular (Ministry of Economic Affairs and Employment 2023b). This shortage affects all types of areas, both urban and rural (Map 4.1).

According to the Barometer, demand for labour is decreasing due to the downward trend in the current economic cycle. Even so, almost half of workplaces (46%) seeking labour found it difficult to fill the vacancy. From a regional perspective, the situation in 2023 was most pronounced in Kainuu and Ostrobothnia. Kainuu is classified as a sparsely populated rural area, with the exception of its commercial centre, Kajaani. Ostrobothnia, meanwhile, consists mainly of rural heartland areas and sparsely populated rural areas, although with smaller urban centres (Ministry of Economic Affairs and Employment 2023a).

A closer examination of occupational levels reveals there is currently an acute shortage of nurses. In addition, there is a quantitative shortage of labour in early childhood education and care, sales tasks, protection and guarding work, and the software sector. There is also an oversupply of labour in many occupations, with the latest statistical data indicating this is the case for salespersons, builders, carpenters, freight handlers and lorry drivers (Ministry of Economic Affairs and Employment 2023a).

Finland's unemployment rate (as of March 2024, for persons aged 15–74) is 8.1%, while its employment rate (persons aged 20–64) stands at 76.1% (OSF n.d.a). Here, it should be noted that the official statistics underestimate open vacancies, as private companies do not always seek labour openly or via public channels.

According to a recent Labour Market Roadmap project (Larja & Peltonen 2023), occupations facing a labour market mismatch – that is, where there is considerable demand for labour but unemployment remains high – include construction workers, application programmers, packers, chemical industry process operators, travel guides and greenhouse workers. The majority of such occupations are characterised by atypical employment relationships and low earning levels, rather than a traditional professional or regional mismatch (Larja & Peltonen 2023).

While lack of regional mobility is not generally a big problem in Finland, especially as the higher educated labour force is already very mobile (Alasalmi et al. 2020), increased mobility would be of help for certain occupations within the hospitality and manufacturing industry. A case in point is waiters, a profession that suffers from unemployment in urban areas, particularly the capital area, but for which

there is a shortfall in supply across sparsely populated rural areas, especially Lapland. Similarly, the food industry faces a lack of process labour in the core rural areas of South Ostrobothnia, in contrast to the surplus found in the sparsely rural areas of North Ostrobothnia (Larja & Peltonen 2023).

Looking at labour shortage profiles according to regional type, it can be seen that the entire country suffers from insufficient labour in the care sector. Turning to sparsely populated rural areas, a specific feature is the shortage of seasonal workers, both in the hospitality sector and especially in wild berry-picking. In core rural areas, which feature numerous small and medium-size (SMS) enterprises, there is a lack of both labour and successor enterprises in process and mechanical industry. In rural areas close to urban areas, there is a shortage of skilled labour in construction and industrial work. Finally, labour shortages in urban areas are worst in education and early childhood education, protection and guarding work, and the software sector (see Table 4.1).

History and trends

Finland's industrialisation took place relatively late, from the 1960s onwards, with forest industry, wood processing and machine building forming the basis for metalworking and engineering. Due to the country's northerly location, agriculture has never been a thriving business. Instead, it has been more typical – particularly in the case of farms in the north and east, where fields are small and scattered – to combine agriculture with other activities. In earlier times, this usually involved forest work; in more recent decades, machine contracting and paid employment.

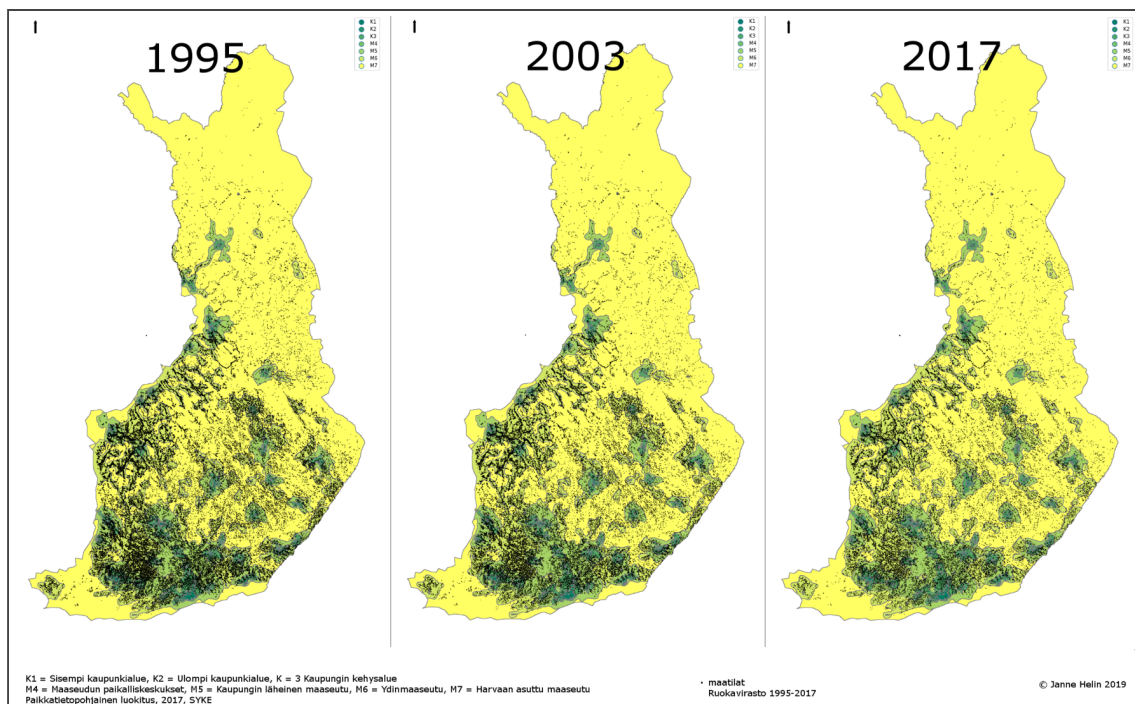
Up until the recession that took hold in the early 1990s, Finland's economic growth and welfare increases were rapid by international comparison. Prior to its collapse, the Soviet Union accounted for 15–20% of Finland's exports, with Finland importing raw materials and exporting processed goods. The bilateral trade arrangements this rested on, however, were swept away along with the Soviet regime. At the same time, Finland faced a domestic financial sector crisis, price-competitiveness problems across its industries in general, and an economic downturn among Western economies.

Finland's traditional rural businesses, agriculture and forestry have changed dramatically since the Second World War. Starting in the 1960s, forest work mechanised rapidly, while in agriculture similar developments progressed at a slower pace. As of 2020, the primary industries' share of all jobs in Finland stood at 2.7% and the share of rural jobs at 10%, with the latter figure varying from 11.4% in sparsely populated rural areas to 5% in rural areas close to urban areas (Statistics Finland n.d.).^[6] Simultaneously, farming has become concentrated in fewer active

6. According to the Statistics Finland definition, 'primary production' includes agriculture, forestry and fishing, but not mining.

farms and fewer areas across the west and south of the country.

Map 4.2 shows how the number and distribution of Finland's farms has changed between 1995, when Finland became a member of the European Union (EU), and 2017. Most labour-intensive farms – those with livestock – are located either in the south-west (poultry and pig) or further north (dairy farms). The shift in the most labour-intensive production lines towards central and northern Finland is largely the result of the Act on Accession to the EU, which restricts payment of long-term national support to areas north of the 62th parallel.^[7] From the EU's perspective, such spatially steered payments are meant to support farms in areas with less favourable conditions. Many farms, especially those involved in crop production, have diversified into other, on- or off-farm, business. Paid work outside the farm is also common.



Map 4.2. Farms in regional types of areas, 1995, 2003 and 2017.

Source: Vihinen et al. (2019: 65).

Note: One dot = one active farm (= eligible for subsidies). K1 = inner urban area; K2 = outer urban area; K3 = peri-urban area; K4 = local centres in rural area; K5 = rural area close to urban area; K6 = rural heartland area; K7 = sparsely populated rural area.

7. The relevant details can be found in Article 142 of the 1994 'Act concerning the conditions of accession of the Kingdom of Norway, the Republic of Austria, the Republic of Finland and the Kingdom of Sweden and the adjustments to the Treaties on which the European Union is founded', http://data.europa.eu/eli/treaty/acc_1994/sign.

The great recession of the 1990s initially led to severe, long-lasting unemployment, then later – towards the end of the century – the birth of the information and communications technology (ICT) sector and large-scale telecommunications. Following the 2008–2009 recession, the telecommunications sector lost its leading role in the economy. Instead, Finland has returned to exporting pulp industry products, with packing board replacing paper due to the worldwide expansion of online shopping. The technology industry, along with mechanical engineering, also remain strong elements of Finland's export industry. Forestry and machine construction are both deeply rooted in the country's rural areas, and so affect local labour markets. Although the headquarters of many metal and mechanical engineering companies are located in urban areas, they depend heavily on subcontracting, which takes place all over the countryside.

2. Regional and rural labour shortage variations

Rural labour force projections

As already mentioned, Finland's rural population is ageing rapidly. Table 4.1 below shows that, according to population forecasts (OSF n.d.b), rural areas are expected to lose 100,000 working-age inhabitants by 2040. The trends driving this projection are a low birth-rate, with mortality exceeding births, and the concentration of foreign labour in urban areas, which are expected to gain 100,000 workers over the same period. The forecast also indicates that the larger shortage of female workers relative to male workers in rural areas will continue (OSF n.d.b).

Most important sectors by rural area type

While different types of rural areas have different economic structures, social and health care is the biggest employment sector across all regional types – including urban areas. As of 2020, the sector's share of employment in sparsely populated rural was 18.2%, followed by primary production (agriculture, forestry and fisheries) (11.4%) and industry (10.8%). In heartland rural areas, the three biggest sectors were social and health care (19%), industry (18.9%) and primary production (9.9%). In rural areas close to urban areas, the biggest employment sector is again social and health care (19.4%), followed by industry (15.5%) and construction (10.9%) (Statistics Finland n.d.). Given the social and health care sector is dominated by female employees, any changes to the sector inevitably impacts women's job opportunities in rural areas.

Social and health care's share of employment has increased in all types of areas over the period 2007–2020 (Statistics Finland n.d.). In sparsely populated rural areas, the only other sector to increase its share of employment during this time was the mining industry (from 1% to 2.9%). In rural heartland areas, the hospitality

sector's share increased slightly (from 2.5% to 2.8%), while the construction industry grew in rural areas close to urban areas (from 9.8% to 10.9%) (Statistics Finland n.d.).

Entrepreneurs and the self-employed as part of the labour force

Proportionally speaking, Finland's rural areas host more entrepreneurs, especially small-scale entrepreneurs as well as self-employed workers than its urban areas, where wage work is more common. In both sparsely populated and rural heartland areas, 15.4% of all those engaged in work in 2020 were entrepreneurs/self-employed. In rural areas close to urban areas, the percentage was 12.7%, while in urban areas it was just 8.6% (Table 4.1). As the numbers provided in Table 1 demonstrate, rural enterprises are primarily very small, with rural heartland areas standing out as having most businesses in absolute numbers.

In many cases, such businesses involve self-employed people taking care of various types of production (e.g. in agriculture or horticulture) or providing rural communities with necessary services (e.g. cleaning and maintenance workers, car mechanics, electricians, plumbers, machine contractors, hairdressers, physiotherapists). In addition, self-employment is also common in 'new' rural occupations, such as wilderness or hiking guides, dog trainers or wellness therapists. Self-employment is often the only option available for those interested in living in rural areas. Moreover, their work may only be possible with the aid of virtual connections and remote working.

Given the number of small enterprises in the countryside, labour shortages in rural areas not only affect the activities of public institutions and private companies, but have a direct impact on the number of such enterprises in an area (see Table 1). While the high number of small enterprises in rural heartland areas is partly explained by the amount of farms, only 35,730 of the total of 141,556 rural enterprises recorded in 2020 were classified as agricultural and horticultural enterprises (Statistics Finland n.d.). In other words, only one in four rural enterprises can be classified as a farm. The ageing rural population also means labour shortages arise due to a shortage of successors willing or able to take the place of retirees. All of the above has implications when it comes to dealing with rural labour shortages.

Labour shortages due to retirement

When it comes to understanding whether future rural labour shortage in Finland will primarily be characterised by lack of personnel or lack of appropriate skills in the existing work force, it is important to examine the likelihood of rural labour retiring in different types of rural areas and sectors. According to employment statistics for 2022 (Vihinen et al. 2024), in sparsely populated rural areas almost a

third (32.8%) of the total working population (both paid employment and self-employment) was 55–74 years old thus likely to exit the world of work within ten years. The sectors with the largest shares of those in this age bracket were property business/maintenance (47.8%), public administration (39.3%), finance and insurance (37.4%), and primary production (36.8%). The share was high also in education, as well as in social and health care. People working in the mining sector had the smallest proportion of people likely to retire within the coming decade (Vihinen et al. 2024).

In rural heartland areas, 28% of the working population was 55–74 years old. As in the sparsely populated rural areas, those employed in property business/maintenance were the most likely to belong to this age bracket (42.4%), followed by public administration (36.1%) and primary production (33.7%). At the other end of the spectrum, the construction sector had the smallest share in rural heartlands (21.5%) (Vihinen et al. 2024).

The picture was somewhat more positive in rural areas close to urban areas, where, on average, a quarter (24.6%) of the employed population was 55–74 years old. Here, primary production had the highest proportion falling into this age range (35.2%), followed by property business/maintenance (34.8%). Conversely, the sector with the smallest proportion of 55–74 year olds was information and media (19.2%) (Vihinen et al. 2024).

It is noteworthy that the shortage of labour in rural areas is, in many cases, down to a lack of younger entrepreneurs stepping in to take over when their older counterparts retire. Firstly, many workers in rural areas work in small firms (see Table 4.1), meaning the retirement of a firm's owner may lead to the job disappearing. Secondly, addressing labour shortages in rural areas requires finding suitable successors to fill the skills gap created when an entrepreneur or self-employed person leaves the local labour market. Doing so becomes difficult when there is a shortage of such individuals interested in or able to pursue self-employment. Here, it should be noted that being an entrepreneur or self-employed worker implies – in addition to the substance of the work – extra skills.

Seasonal workers as a specific labour shortage group in rural areas

Finland hosts an estimated 40,000 seasonal workers, half of whom work in the hospitality sector (especially in Lapland sports resorts), with the remainder working in agriculture or horticulture, or as wild berry-pickers (Yle 2022; Rannanpää et al. 2022). Regarding rural areas, an important intra-Nordic difference should be highlighted with regard to third-country migrant workers. In Finland, Ukraine provided the largest proportion of such workers the majority of whom come to work in horticulture in the years prior to Russia's full-scale invasion in 2022 (Kuns et

al. 2022). By contrast, studies indicate that EU labour migrants dominate in Norway and Denmark (Friberg & Erdland 2013; Friberg & Midtbøen 2018), and are also significant in Sweden.

In recent years, the Covid-19 pandemic and especially the war in Ukraine have complicated the availability of seasonal workers, to the extent that lack of workers threatens to significantly affect the supply of fruit and vegetables in Finland. By some estimates, a third of Finland's seasonal rural worker roles are going unfulfilled (Yle 2022). Ukrainians in Finland who have fled their country and received temporary protection are allowed to work freely, and after 12 months can apply for a municipality of residence. The problem, however, is that most of these Ukrainians are women with (small) children, whereas male labour is needed to safeguard competitive production in agriculture and horticulture. As such, Finnish rural areas can no longer rely on the availability of Ukrainian labour (Viilo 2023).

Another sector facing severe labour shortages, particularly in sparsely populated rural areas, is the picking of wild berries and other natural products. Generally, this work is not carried out through conventional employment relations. Instead, most berry-pickers are foreign nationals who pick nature products by virtue of everyman's right, facilitated by accommodation and food provided by industry operators. Recently, serious legal doubts have been raised regarding the sector's functioning, with authorities expanding a human trafficking investigation to encompass berry companies. At the same time, high-ranking politicians and officials in Thailand have been subject to allegations of corruption linked to berry harvesting in Finland, while a Finnish senior ministerial advisor has been remanded in connection with the suspected use of foreigners in wild berry-picking (Yle News 2024a). In response, Finland's Ministry for Foreign Affairs suspended berry-pickers' visa applications in Thailand (Ministry for Foreign Affairs 2024).

Given that Thai pickers have typically accounted for 80–90% of commercially picked wild berries (Lapin Kansa 2024), this represents a major setback for the Finnish natural product sector, and appears a difficult issue to resolve in the short run. The most recent attempt to address the wild berry-picking labour issue has been the outlining of a ministerial committee on employment and entrepreneurship. This states that, from 2025 onwards, pickers should primarily have seasonal employment contracts, with berry-picking on a tourist visa no longer allowed. For 2024, wild berry firms are permitted to recruit foreign pickers if they enter Finland with employment-based residence permits, which is effectively the same procedure for workers harvesting farmed berries, such as strawberries. The main reason the use of berry-pickers has not previously been employment-based is because this allows the risk of poor harvest to be borne by the pickers rather than the berry companies (Yle News 2024b).

Table 4.1. Employment and entrepreneurship indicators according to national regional typology, different years.

	Sparsely populated rural areas	Rural heartland areas	Rural areas close to urban areas	Urban areas
Working-age (25–64 years) population in 2040 (change from 2021, %)	103,207 (-24.4%)	253,733 (-19.2%)	254,113 (-6.0%)	2,190,822 (5.1%)
Working-age (25–64 years) population according to gender in 2040	54,287 (men) 48,920 (women)	133,379 (men) 120,354 (women)	131,012 (men) 123,101 (women)	1,125,541 (men) 1,065,281 (women)
Most important sectors employing workers in 2020 (arrow shows direction of growth/shrinkage)	Social and health care (20.5%) ↑ Primary production (11.4%) ↓ Industry (10.8%) ↓	Social and health care (19%) ↑ Industry (18.9%) ↓ Primary production (9.9%) ↓	Social and health care (19.4%) ↑ Industry (15.5%) ↓ Construction (10.9%) ↓	Social and health care (17.9%) ↑ Trade (11.6%) ↓ Industry (11%) ↓
Total share of employed over 55 years (including entrepreneurs) in 2022 (2007)	32.8% (20.3%)	28.0% (20.2%)	24.6% (18.0%)	20.4% (16.8%)
Share of entrepreneurs among total employed in 2022	15.4%	15.4%	12.7%	8.6%
Number of (companies') places of business in 2020 (national share)	27,278 (6.8%)	73,619 (18.4%)	40,659 (10.2%)	257,647 (64.5%)

Share of places of business according to number of personnel and region type in 2020	0–4 persons: 90.6% 5–9 persons: 5.2% 10–19 persons: 2.7% 20–49 persons: 1.2% 50–249 persons: 0.3% 250+ persons: 0.01%	0–4 persons: 90.3% 5–9 persons: 5.1% 10–19 persons: 2.7% 20–49 persons: 1.3% 50–249 persons: 0.5% 250+ persons: 0.03%	0–4 persons: 89.7% 5–9 persons: 5.4% 10–19 persons: 3.0% 20–49 persons: 1.5% 50–249 persons: 0.4% 250+ persons: 0.04%	0–4 persons: 83.7% 5–9 persons: 7.5%) 10–19 persons: 4.6% 20–49 persons: 2.8% 50–249 persons: 1.3% 250+ persons: 0.15%
Commuting/remote work/seasonal work	More seasonal work municipalities than other regions.	Least number of commuting. Highest workplace self-sufficiency among rural areas.	Lowest workplace self-sufficiency. Highest number of remote work and commuting municipalities.	Highest workplace self-sufficiency.
Labour shortage profile	Eldest workforce. Vulnerable to generation shifts (large share of small-scale entrepreneurs in workforce), especially in agriculture. Other shortage sectors: care, seasonal workers, wild berry-pickers. In Lapland, danger of losing skilled labour to Norway and Sweden.	Vulnerable to generation shifts (large share of small-scale entrepreneurs in workforce). High number of small enterprises. Lack of labour in social and health care, and process and mechanical industry. Open field vegetable production dependent on foreign labour. In Finland's western regions, losing skilled, Swedish-speaking labour to neighbouring countries.	Lack of industrial workers, as well as skilled labour in construction. Labour shortages in urban areas affect the labour market in these areas. Smaller share or entrepreneurs among workforce.	Lack of labour in social and health care; education and early childhood education; protection and guarding work; and the software sector.

Source: Vihinen et al. (2024).

Strategies and solutions

Rural labour shortages take many forms, with solutions requiring improved performance from all actors. Successful strategies in the past have often involved, among other things, regional and local tailoring, systematic networking, and cooperation across sectors. Against this backdrop, the sectors facing persistent labour shortages should revisit the terms of employment by addressing the following three dimensions: 1) the amount and quality of employees, which can be dealt with through foreign labour, vocational education or further training, and activating the unemployed; 2) the number of entrepreneurs and available successors; and 3) the quality of management and leadership.

Below, following a brief summary of Finland's labour policy landscape, the main findings from recent studies and development projects in the country's rural areas are summarised.

Regional implementation of national employment policies

Essentially, Finland's labour policy is set at a national level, with the Ministry of Economic Affairs and Employment taking the lead and other ministries bearing special responsibilities. For example, the Ministry of Social Affairs and Health is assigned occupational safety and health,^[8] while the Ministry of Education and Culture seeks to address skills shortages through vocational and higher education.^[9] Elsewhere, the Ministry of Agriculture and Forestry has the lead role when it comes to the EU co-financed Common Agricultural Policy plan (formerly the Rural Development Programme), under which projects can be funded that contribute to solving labour shortage problems in rural areas.^[10]

Within the national policy framework, regions have a degree of room for manoeuvre when choosing targets tailored to their circumstances. Although labour policy is centrally led, its implementation is currently undertaken by regional state authorities, namely the 15 ELY Centres (Centres for Economic Development, Transport and the Environment) and 15 TE Offices (Employment and Economic Development Offices), which offer employment services.^[11]

Starting from 1 January 2025, however, the system will shift towards greater local implementation, with 45 employment areas or municipalities given responsibility for organising employment services and economic development (Ministry of Economic

8. For further information, see: <https://stm.fi/en/occupational-safety-and-health>.

9. For further information, see: <https://okm.fi/en/vocational-education-and-training>.

10. For further information on Finland's CAP plan, see: <https://maaseutu.fi/sv/eus-gemensamma-jordbrukspolitik/cap-plan/>.

11. For further information on ELY Centres, see: www.ely-keskus.fi/ely-keskukset; for TE Offices, see: <https://tem.fi/en/public-employment-and-business-services>.

Affairs and Employment 2024). This comes as part of a major readjustment in the division of labour between the state and municipalities. Finnish municipalities have, since 2023, been designated 'vitality' communities rather than 'care' communities, as was the case previously. In practical terms, social and health care has become the responsibility of specific regions, while municipalities now focus on promoting the local economy and taking care of primary education, culture and land use (Ministry of Social Affairs and Health n.d.).

What currently unites all of Finland's regions is the need for skilled labour and significant green transition investments in, among other things, wind, solar and bioenergy solutions, as well the circular economy. The overriding message sent by the regions is that labour supply must be increased through the labour migration of skilled workers, and by improving areas of education relevant to the needs of enterprises located in the area in question (Pylkkänen 2023.)

Encouraging regional mobility

When it comes to labour mismatches, targeted communication about vacancies and mobility assistance could facilitate access to the workforce. Here, the main means of enhancing employment is the development of digital solutions and support for jobseekers and employers. International recruitment by public funds has also been proposed as a way of targeting occupations facing shortages where the potential for foreign labour appears greatest, such as ICT experts. Similarly, the number of foreign students undertaking courses relevant to these professions should be increased (Larja & Peltonen 2023).

Improving recruitment services

Various private recruitment channels (such as Töitä Suomesta/Work in the Countryside) have emerged alongside the regional TE Offices, leading to various forms of cooperation between the two.^[12] Informal recruitment channels are important in some regions and sectors, with the internet potentially serving as a platform in such cases.

Even so, employers are struggling to identify the most effective channels for finding workers. There are a multitude of recruitment services and it takes considerable skill and experience to know what to use when. While private services are considered more user-friendly than their public equivalents, they charge not-insignificant fees (Karikallio & Kiviholma 2019).

The quality of the workforce coming through public employment services is perceived to have declined. Moreover, many employers regard the public

12. For further information on Töitä Suomesta/Work in the Countryside, see: <https://jobs.toitasuomesta.fi/en-GB>.

employment services as slow, or are unfamiliar with the recruitment services they provide. Given this, employer awareness of these services should be improved. There is also demand for a personalised service to complement e-services (Karikallio & Kiviholma 2019).

Making rural jobs more attractive through employers' good practices

Employers must be proactive in finding and retaining a skilled workforce. Here, an important starting point is ensuring the basics are in place: the job should match what has been agreed, and the workplace should have clear ground rules, a good working atmosphere and a meaningful commitment to equal opportunities. Moreover, employers should make concerted efforts to improve their image and job adverts. In this respect, job presentation videos involving interviews with employees offer a good way of promoting awareness of both a particular workplace and the sector as a whole. In short, pride in one's own industry should be visible at all times (Karikallio & Kiviholma 2019).

Improved salaries, contract types and working conditions in the main labour shortage sectors – such as social and health care, and maintenance and cleaning – are needed. There are many educated nurses, for example, who leave the sector due to unsatisfactory working conditions.

Educating potential employees and broadening the view of rural labour resources

Regional educational institutions and training options are central to workforce availability in Finland. Upon graduation, students often remain in the area where they studied. As such, closing down occupational education institutions in rural areas poses a structural problem when it comes to labour shortages. In 2022, there were only four vocational schools left across Finland's entire sparsely populated rural area (Vipunen n.d.). Given that it is unlikely a significant number of new vocational institutes will be established in rural areas, investments in remote learning and learning hubs should be promoted.

Although recruitment training has shown signs of success, for example in the metal sector, the tool has been under-utilised thus far. Recruitment training is often incorporated into (vocational) studies, thereby introducing students to real-life work experiences and providing connections between potential employees and employers. Work experience schemes offering short placements with local employers can act as an incentive for unemployed people and students, helping integrate them into the labour market.

There appears to be a cohort of potential workers who for various reasons are uninterested in or cannot attend vocational schools. Here, apprenticeship training in

which an employer provides an employee with training over the course of a fixed-term contract offers a potential solution. Under the Finnish system, an apprenticeship student works at least 25 hours a week. At least 80% of training takes place in the workplace, with the remaining 20% conducted in an education institution via online access and/or remote courses. Through the apprenticeship, the employee can complete second-degree vocational qualifications.^[13] Apprenticeships have already been shown to relieve labour shortage pressures in the forest sector (Kauppalehti 2022). However, many rural workplaces are so small that organising apprenticeship training can be challenging due to scarce resources. As such, it would be useful to put in place tailored place- and sector-based systems that help address these obstacles.

More generally, pensioners and the partially employed in particular remain an under-utilised labour resource, including in rural areas.

Cooperation

One of the key potential solutions to rural labour shortages is increasing levels of cooperation between rural enterprises. This encompasses combining work to create longer periods of employment; recruiting foreign labour from abroad together; and/or engaging in rural development projects aimed at improving work conditions or the attractiveness of the area or sector in question (Karikallio & Kiviholma 2019). In terms of recruiting foreign labour directly to rural areas, there have been several encouraging examples of regional or local cross-sectoral cooperation involving close relations between local entrepreneurs and regional authorities (Vesala & Vihinen 2011).

Trade unions should also be involved in increasing cooperation, as well as municipalities and educational institutions. In rural areas, the labour market is thin, meaning regional labour mobility is important for balancing local labour markets. Such labour market disparities can be lessened by providing opportunities for teleworking or multi-site working. Overall, it is becoming increasingly easy to move from urban areas to rural enterprises (Vesala & Vihinen 2011).

Entrepreneurship/self-employment as an option

Increasing entrepreneurship/self-employment through better incentives is part of the solution to rural employment problems. It has become increasingly common, especially for temporary work, to utilise freelance services rather than hire a contract employee. In some cases, it is easier to offer remote or place-independent services as a self-employed person than to find a job in a rural area (Karikallio & Kiviholma 2019).

13. For further information, see: <https://oppisopimus.fi/en/student/apprenticeship-training/>.

Activities aimed at matching potential successors with retiring entrepreneurs/self-employed workers is also an option for recruitment services in rural areas, where there is a shortage of successors.

Foreign workers

Foreign workers are of great importance in rural areas. A survey of Finnish rural employers (Karikallio & Kiviholma 2019) reveals that they find the work permit process, especially for workers coming from outside the EU, to be slow and inflexible. Greater efficiency and flexibility in this regard would therefore be desirable. In addition, more resources from employers and municipalities should be allocated to immigrant integration and language training. Even before starting work, foreign workers should be made familiar with the local living environment and work setting, as well as how best to interact with the authorities. Once in employment, foreign workers should be made to feel comfortable both at work and in their local community. It is also important that an employer makes efforts to maintain their good reputation, as foreign workers have a low threshold for changing jobs within the industry (Karikallio & Kiviholma 2019).

Närpes municipality is known nationally for its success in recruiting foreign labour, especially to work in glasshouses, and has long been regarded as Finland's most successful rural area when it comes to tackling labour shortages. The strategy has been to embed newcomers in the labour market using longstanding, systematic activities aimed at encouraging – among other groups – family members of existing foreign workers, workers with a refugee background and those recruited directly from abroad. The roles played by both the municipality and employers has been crucial to making such integration a success (Raunio et al. 2023).

Provided they have the relevant professional skills, coupled with the motivation for regional mobility, seasonal foreign workers hold the potential to address various sectoral labour shortages throughout the year. Here, the question of regional attraction and retention, services and spouse employment is of particular importance. In Keski-Karjala sub-region, part of a sparsely populated rural area, local public and private sector actors have engaged in long-term cooperation, bringing together separate seasonal works in order to provide year-round employment. As a result, foreign workers have been enticed into settling down in the area, thus improving longer-term labour availability (Rannanpää et al. 2022: 85).

This demonstrates that even very sparsely populated rural areas can be made attractive living settings for foreign workers. Similarly, anyone whose work is location independent can if they wish transfer their activities to attractive rural surroundings. In many cases, however, this would require fully functioning, fast internet connections.

Improving the possibilities for multi-local working

A frequent problem in cases where a worker is potentially interested in taking up a job in a rural area is that there is no job available for his/her spouse. Here, the government resolution promoting multi-local work, studying and living (VM/2022/40) offers a means of addressing this obstacle, with the state sector committing itself to giving employees the freedom to choose where they work (taking into account the content and needs of the work in question).^[14]

Concluding remarks and outlook

Finland's diverse rural areas face a range of labour shortage issues. As such, they require regionally tailored policy combinations, together with tools aimed at facilitating (small) entrepreneurship/self-employment. Employment itself is currently undergoing a process of transformation – going forward, we may see more atypical labour contracts, as well as greater numbers of self-employed people in rural areas.

Thanks to modern communication technology, more and more of our work is becoming location independent. Given this, investing in fast internet connections potentially offers one of the most effective labour policy options when it comes to rural areas. Access to vocational education is also a critical element in any functioning labour market, including in rural areas. Moreover, persistent labour shortages in a particular sector indicate a need to revisit the terms of employment (e.g. wages, working conditions), as well as the work management culture.

Finland's ageing population is an issue for Finland's labour market as a whole. Here, two main policy options present themselves: either adjust to the fact that certain geographical areas face shrinking populations, or try to attract foreign labour. The latter option poses challenges, as even if sufficient political will is mustered to proceed down this path, Finland is not a favoured destination for the international labour force.

Within the country, however, rural areas offer an attractive working environment for many. In addition, the core of Finland's economy – the wood and metal industries – is firmly rooted in rural areas.

Finally, a researcher's observation regarding rural labour shortage: gathering spatially based employment statistics would provide more accurate information on employment problems in different regions.

14. For further information on government resolution VM/2022/40, see:
<https://valtioneuvosto.fi/paatokset/paatokset?decisionId=0900908f8079e6cb>.

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It is no problem for the fishing sector in Greenland to recruit skilled personnel, but it has problems recruiting unskilled labour for fish factories. (Photos: iStock)

5. GREENLAND

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The labour market in Greenland

As is the case elsewhere, demographic developments mean Greenland is confronted by a situation in which the number of elderly people is increasing alongside a declining workforce. This is exacerbated by the fact that there is already a shortage of qualified labour in a society where unemployment rates are very low.

Greenland is categorised as a fishing nation. Looking at the sectors where most people are employed, care and welfare services ranks highest, just above the fishing sector (see Table 5.1).

**Table 5.1. Labour force by industry
(percentage of total).**

Care and welfare services	17.6%		Administrative services and support services	1.50%
Fishing and fishing industry	16.00%		Leisure, culture and religion	1.20%
Wholesale and retail trade	11.10%		Liberal, scientific and technical services	1.10%
Education	8.90%		Other service industries	1.10%
Building and construction business	8.30%		Real estate	1.00%
Transport and cargo handling	7.20%		Environmental protection	0.90%
The health service	6.10%		Bank and financial company	0.80%
General public services	4.80%		Manufacturing business	0.80%
Accommodation and restaurant business	2.80%		Agriculture, forestry and agriculture-related industry and trade	0.40%
Undisclosed	2.50%		Raw material extraction	0.40%
Information and communication	2.20%		Public order and security	0.10%
Economic affairs	2.10%		Housing and public facilities	0.10%
Energy and water supply	1.60%		Defence	0.00%

Source: [Dataset from Statistics Greenland, 2023](#), [OFDOA1] and [ARDBFB01]

Note: Employment in the public sector is divided into sub-categories to provide a better understanding of employment levels in the various professional areas.

Closer analysis of the care and welfare services category reveals that care workers with a short-term education constitute 32.8% (childcare workers, pedagogic assistants and hourly paid workers) of all public employees, while teachers and pedagogues make up 14.2%.

Greenland's cities have municipal and self-governed day-care facilities, which means, that all cities have daycare facilities, but not all small villages have a day-care facility), as well as care and support for the elderly (all cities have care facilities for the elderly involving three work shifts, meaning there are a lot of employees). In

total, the care professions (defined as social protection) employ 4,660 people per year. Each city has a health centre, together accounting for up to 1,650 employees per year nationwide. Smaller groups of three persons are employed at dental clinics, although there are additional employees in larger cities.

Meanwhile, the health service sector – which is categorised separately from care and welfare services – accounts for 6.1% of Greenland's total employment, and 17,6 % of its public employees. The labour falling into this category are a somewhat varied group, consisting of unskilled and short-term educated (6%); healthcare assistants (2.6 %); bioanalysts, physiotherapists, occupational therapists and midwives (1.2%); and doctors and psychologists (1.8%), nurses etc. (5.8) and medical secretary interns, meret healthcare assistants (0,2%). (Public employees by sector, collective agreement groups (2015-2023) dataset [OFEOA5] from Statistics Greenland 2023).

The vital parts of the Greenlandic society function along the coast, where several quasi-public companies with large numbers of employees are based. Among them are the energy service company Nukissiorfiit and telecommunications company Tusass, each of which have a presence in every Greenland town and employ approximately 400 people nationally. Fish company Royal Greenland employs approximately 1,390 of the 4,355 people working in the fishing sector (although almost all towns have a fish factory, in some places they only operate seasonally), while Royal Arctic Line, a seaborne freight company – again present in all cities – employs up to 750 people on average per year.

In the wholesale and retail trade businesses , there are 3 larger chains. And these are: Pisiffik A/S and KNI A/S (Pilersuisoq and Polaroil) and Kalaallit Nunaanni Brugseni.

Pisiffik A/S was sold from KNI A/S in the year 1993 and now operated under normal competitive conditions. The owners are KFI Figros ApS (33.00-49.99%), Norgesgruppen Danmark Aps (33.00-49-99%) and Nalik Ventures A/S (10-14.99%). Pisiffik A/S operates the store chains Pisiffik, SPAR, AKIKI, Torrak Fashion, JYSK, ILVA, PISATTAT, SUKU, ELGIGANTEN, Notabene (located in the cities of Qaqortoq, Nuuk, Maniitsoq, Aasiaat and Ilulissat) as well as the webshop Pisiffik.gl and the restaurants Sunset Boulevard in Nuuk and Ilulissat. Pisiffik A/S employs 807 at the end of 2023 in total.

KNI A/S is primarily in 2 parts: The store chain Pilersuisoq and Polaroil, which handles gas oil, petrol, kerosene and jet fuel in Greenland. KNI A/S is 100% owned The Self-Government of Greenland employs 838 full-time employees at the end of 2023.

Kalaallit Nunaanni Brugseni is 100% owned by Greenlandic members and includes 17 stores distributed as follows: 1, in Ilulissat, 3 in Sisimiut, 2 in Maniitsoq, 6 in Nuuk, 1 in Paamiut, 1 in Narsaq, 2 in Qaqortoq and 1 in Nanortalik . Kalaallit Nunaanni Brugseni employs 583 at the end of 2023.

In addition to the above, there are various small companies in the construction, hotel, restaurant and tourism sectors. Although labour figures in these sectors have remained relatively stable over the long term, they all face high staff turnover.

Regional and national variations in Greenland's labour shortages

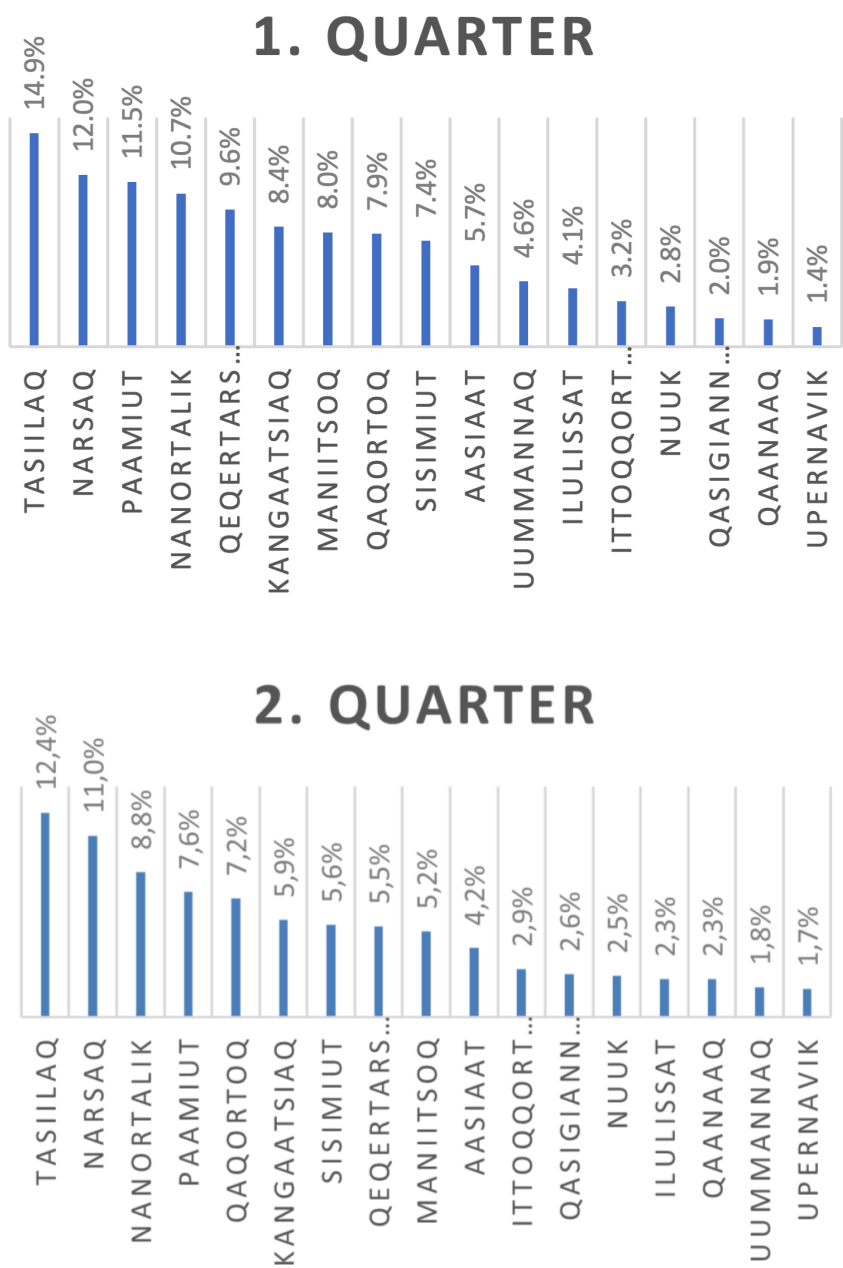
In the past, there was thicker, more stable sea ice, which allowed people to predict with relative accuracy how long it would last and so assess its likely impact on business life. In north Greenland, for example, fishing could be done sustainably on the ice, regulated by nature, while quotas were imposed on the catching of marine mammals, which is regulated regarding on which types of mammals that could be caught and the number that could be caught pr. type.

More recently, however, reduced sea ice cover has greatly diminished the potential for fishing and catching (DMI et al. 2020), and stricter quotas have been introduced. These quotas determine when a low season is declared: in other words, when the quota is met, the low season begins. Overall, changes in climate have had significant impacts on both fishermen and the country as a whole, pointing to the need for structural transformation. The government would like to see businesses become more multi-faceted in order to reduce their dependency on the fishing sector – at present, when things go badly for fishing, Greenland's other sectors are all negatively impacted.

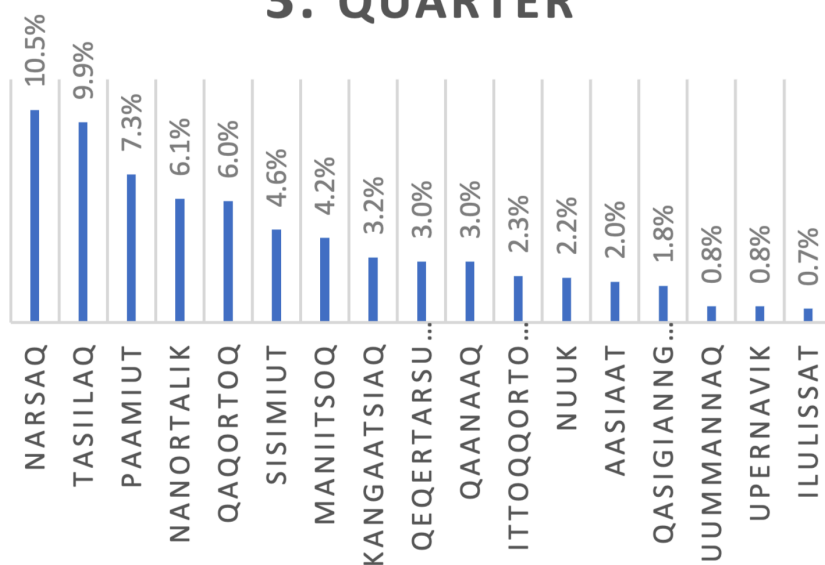
While fishing is well developed on Greenland's west coast, the industry lags far behind on the east coast, despite – ultimately unsuccessful – initiatives aimed at developing the sector. In particular, Tasiilaq, located on the east coast, suffers from high unemployment rates. As Figure 5.1 demonstrates, unemployment rates in Greenlandic towns remained fairly stable over the four quarters of 2023, with variations mostly linked to seasonal changes in the ice cap.

Figure 5.1. Quarterly overview of registered jobseekers.

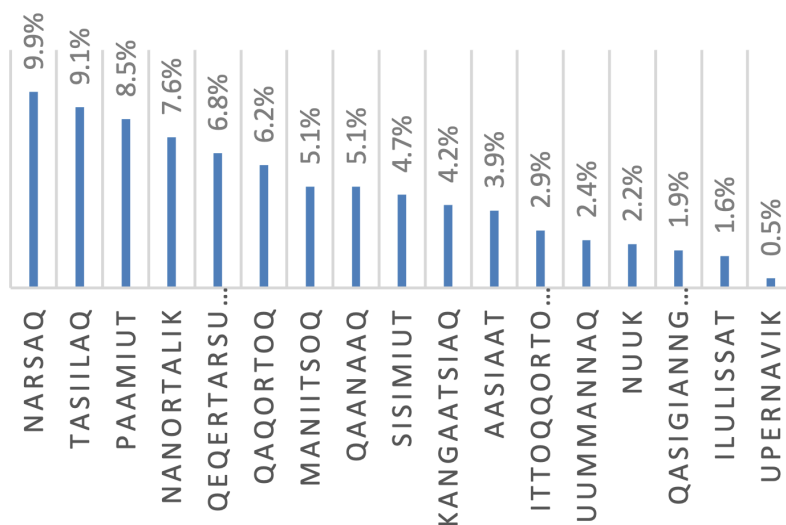
Source: Prepared from three datasets from [Statistics Greenland](#), 2023 ('Registered jobseekers in cities' divided by 'Population distributed in cities' minus 'Early retirees distributed in cities').



3. QUARTER



4. QUARTER



There are also regional differences in the procurement of fish. In north and west Greenland, there is considerable activity on land in terms of fish processing, which is not the case for south Greenland. Moreover, fishing-related activities in west Greenland take place on a more ongoing basis throughout the year compared to north Greenland, where – due to diminished sea ice and quota limits – the fishing sector is constrained by a low season.

Regarding tourism, several local players have emerged in recent years and, given Greenland's ongoing airport projects, it is anticipated that rising numbers of tourists will visit the country. The tourism industry which has long been a potential source of income now appears to be the subject of increased activity, with a

particular focus on making the profession a more year-round activity. Currently, Ilulissat is the only city that can be characterised as a year-round tourism destination. The government is in the process of preparing a long-term tourism strategy that is to be applied from 2025 onwards.

Education and skills in Greenland's labour markets

Analysis of education levels in Greenland's largest sectors indicates vocational training and enhanced competence via education is needed in both the public and private sector (see Figure 2). Across both the fishing sector and the retail trade, employees have vastly different educational backgrounds depending on their function and professional area. In the fisheries sector, there are technically skilled naval officers, sailors and laboratory technicians, as well as largely unskilled factory workers. The same trend is apparent in retail businesses, which feature unskilled service employees alongside office and logistics unit workers with vocational educations.

The relatively high proportion of unskilled workers in Greenland's top three sectors – care and welfare, fishing sector, wholesale and retail trade – means these sectors wield considerable influence when it comes to the overall educational profile of the country's workforce. Currently, the fishing sector provides Greenland's only successful export activity.

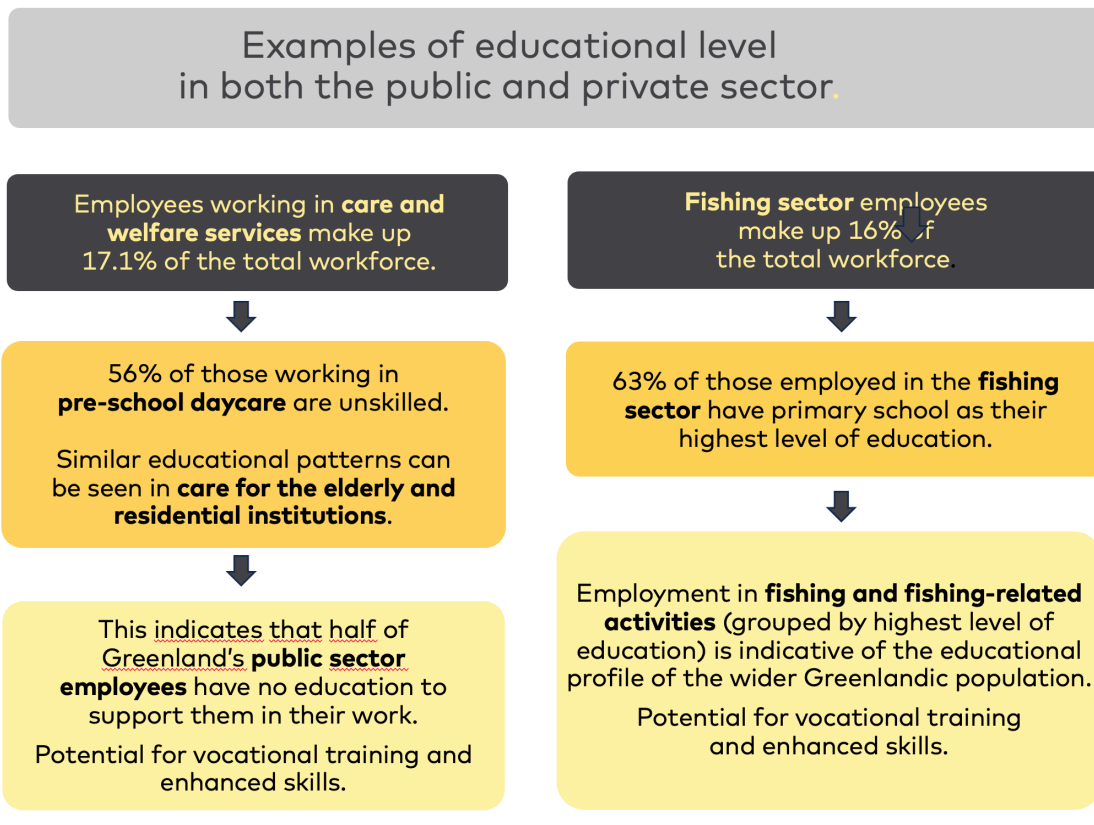


Figure 5.2. Education levels in selected sectors. Source: Dataset from Greenland Statistics, [OFDOA], [ARDBFB08] and [OFDUKN1]

Recruitment problems: Unskilled labour, education and labour migration

Looking at the registered job postings on Greenland's national job-matching platform, it appears that the fishing sector has no difficulty recruiting skilled personnel but faces problems when trying to recruit unskilled labour for fish factories.^[15]

Conversely, there is decreasing demand for unskilled labour in the building and construction sector, while skilled labour is in short supply. This has led to outside labour being called in. Even so, labour shortages remain, with businesses in the sector often refusing to take on new tasks simply because a lack of skilled personnel means they cannot guarantee projects will be completed on time.

Other sectors are also engaged in ongoing recruitment processes, reflective of a widespread demand for labour across the economy. Nevertheless, it takes some

15. Greenland's national job matching service platform can be accessed at: www.suli.gl.

time for potential recruits to complete their education, and it is not unusual for someone to take a break from their studies while a student. As such, exploring ways of young people completing their education in a shorter period of time represents an urgent area of focus.

A key consequence of these recruitment problems is increasing demand for imported labour. While the local population still constitutes a large proportion of the workforce, there are a growing number of labour migrants, alongside a significant number of vacant positions that need to be fulfilled (see Figure 5.3).

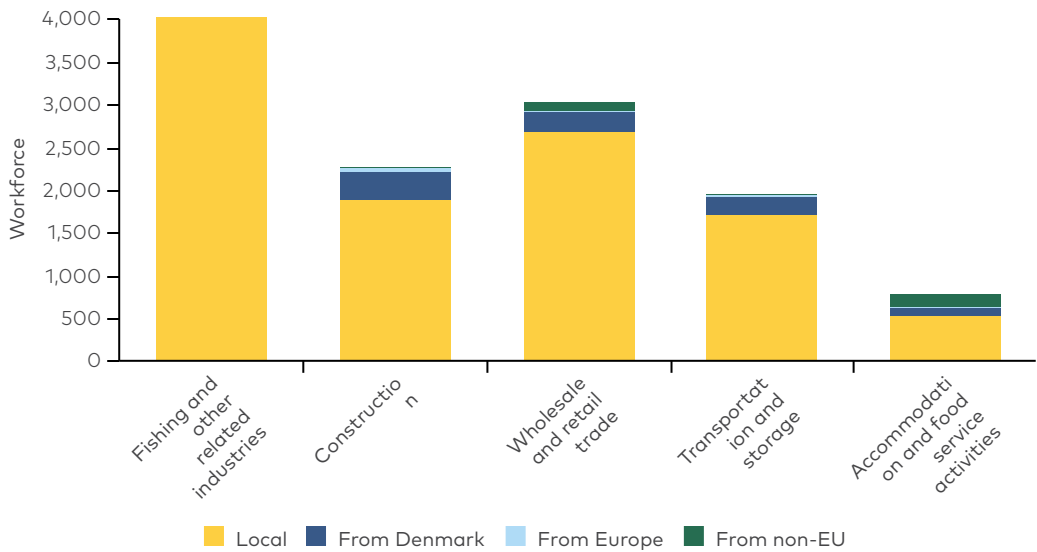


Figure 5.3. Employment rate (number and nationality) divided by industry.

Source: Dataset from [Greenland Statistics](#), 2023, [ARDBFB07]

Strategies and initiatives to address Greenland's labour shortages

Several public initiatives and reforms aimed at overcoming Greenland's labour market problems are currently ongoing or in the pipeline.

Governmental growth and sustainability plan

The Greenland government's 'Political Economic Report 2023' , Politisk-Økonomisk Beretning 2023 states that the government has initiated the following four reform tracks, the first two of which directly relate to education and labour market upskilling:

- *Track 1: Increase education and skills levels*
(Value: All kinds of education and employment are important. Education offers should be targeted at society's needs);
- *Track 2: Work towards sustainable growth and a transition to a more comprehensive economy*
(Value: The public sector's task is to create the framework for business life);
- *Track 3: Future-proof the public sector*
(Value: The public sector is adapted to the population and the country's economy. Public service levels for different residence types should be defined and optimised); and
- *Track 4: Reform the tax system and welfare benefits related to housing and the elderly*
(Value: Everyone is part of the community and contributes what they can).

Track 1 is pragmatically oriented, with a focus on ensuring a clearer division of labour when it comes to greenlandic authorities providing guidance on increasing education and competence levels. More specifically, its objectives are:

- Increase the share of the country's potential domestic workforce to 57% by 2030 (from 54.2% in 2021);
- Increase the proportion of those starting secondary education within two years of finishing primary school to 46% by 2030 (from 39.57% in 2021);
- Increase the proportion of those starting a later education course within two years of leaving upper secondary education to 46% by 2030 (from 37.7% in 2021);
- Increase the proportion of young people completing a programme in the standard time plus two years to 56% by 2030 (from 49.5% in assessment year 2022); and
- By 2030, no young person should be unable to undertake a vocational training course due to a lack of internships.

The changes in organisation and prioritisation implied by these objectives include:

- A structurally clear division of responsibility should be drawn up denoting who is to take the lead on each of the guidance initiatives and policies.
- An individual's action plan at job- guidance and upskilling centres must follow that person, thereby ensuring the authority responsible for guiding them has access to it. This must be enacted both systemically and via legislation.
- Notices and instructions should be issued stipulating parameters for how guidelines are to be drawn up, as well as who has responsibility for providing guidance in a particular area.
- The overall starting point for guidance must be clear: young people must, as far as possible, either be in work or education. Failing that, individual young people should have access to and participate in targeted initiatives conducive to their subsequently entering the labour market or undertaking education.
- The national guidance strategy and the work related to it should provide an in-depth description of the effort's goals and methods, as well as support for putting these into practice.

Reform track 2 is concerned with sustainable growth and transitioning to a more comprehensive economy. As far as Greenland's workforce is concerned, the supply of labour is to be increased in several ways, with initiatives encompassing attracting external labour; better recruitment of Greenlanders from other countries; the upskilling of unskilled labour; reassessment of those taking early retirement; and promoting an inclusive labour market regarding disabled people.

The specific goals of track 2 are:

- 10% fewer people in the age range 30–50 years on social benefits and instead in ordinary employment, phased in at one percentage point per year over the period 2025–2034;
- 10% fewer people in the age range 30–50 years taking early retirement and instead in ordinary employment, phased in at one percentage point per year over the period 2025–2034; and
- Increased immigration into Greenland over the period 2025–2030.

Public structure for guidance, upskilling and training

Greenland's Department of Social Affairs, Families, Labour Market and Home Affairs has developed a strategy in which the existing structure of guidance, upskilling and training opportunities for job- and action-ready people is outlined (see Figure 5.4).

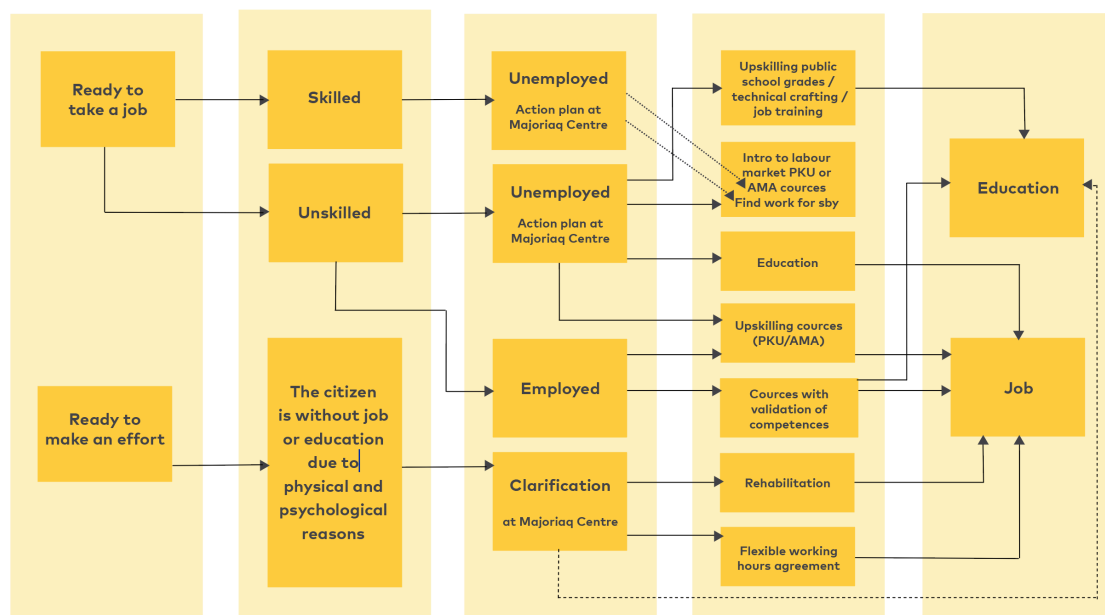


Figure 5.4. Greenland's existing structure for those in the workforce who are job- or action-ready. Source: Department of Social Affairs, Families, Labour Market and Home Affairs, 2023.

As Figure 5.4 implies, there are, of course, students who move onto their post-primary school education without any problems. There are, however, others who need to be guided towards formal education or a job. With this in mind, Majoriaq Centres, established to assist people into a job and/or education, are located in every town. The Greenland government maintains close, ongoing dialogue with the Majoriaq centres, working together to ensure citizens, vocational schools and companies all participate in the pursuit of common goals. When it comes to minimising dropouts, it is the responsibility of school/college tutors to support students who are having a tough time.

Competence development and skills training

Both unemployed and employed labour can access upskilling opportunities through PKU (Projekt Kompetenceudvikling for Ufaglærte) and AMA (Kurser finansieret af ArbejdsMarkedsAfgift) courses (see figures 2 and 4). PKU courses are cost-neutral, with participants – primarily unskilled workers, whether employed or unemployed – able to join for free. AMA courses, meanwhile, are a subsidy scheme financed by the labour market tax, allowing employed and unemployed skilled workers to upgrade their qualifications. Both AMA and PKU courses are business-oriented, with most vocational schools offering both options.

Unskilled workers, who have been in the same job in many years have real competences. Recognition of competences is important to prevent that social and healthcare workers to seeks other opportunities for career. The social care and healthcare sectors provides several courses with credit-bearing certificates for healthcare assistants; assistants within social psychiatry; dental clinic assistants; translators in the healthcare sector; and social workers. These initiatives, which aim at both workforce retention and skills improvement, are in line with the Greenland government's coalition agreement regarding improving the country's social and health care sector. While ideally it would be good to expand the range of such courses credit-bearing certificates, capacity is currently at 100% and it is no easy task to source external teachers in the healthcare field.

Turning to other sectors, attempts have been made to run short courses providing workers with technical skills. It is difficult, however, to induce people in ordinary employment to undertake upskilling courses once they have started earning good money. As such, the relevant schemes are currently designed to target those yet to enter the job market. The Arctic construction worker training course, for example, is aimed at former course participants or relevant individuals willing to take a course, and is based around four 'directions' that open the door to further education:

- Formwork workers can study building construction
- Roofing workers can study construction coordination
- Tile and wet room workers can study bricklaying; and
- Demolition workers can go on to construction management training.

In addition, Greenland's vocational schools offer short courses on a number of topics. Efforts have been made to encourage course participants to seek for opportunities of jobs or pursue education in the field of work they are most inspired by.

Regarding the fishing sector, requirements are to be eased for fishermen wishing to participate in courses during the low season, thereby enabling them to try another area of work without negatively impacting their existing profession. By making it easier to apply for skills improvement courses, it is hoped that more people will be motivated to change professions or undertake longer-term education.

4. Concluding remarks

There is no specific professional experts in every town. However, at a national level, the need for competence has been met through greater use of traveling teams. This is already evident in synoptics; the social sector and psychiatry; the trades; the health service; telecommunications; and legal administration. Moreover, the government's growth and sustainability plan highlights strengthening telemedicine as a means of optimising local capacity.

Meanwhile, several larger-scale projects as building of airports in Ilulissat, Nuuk and Qaqortoq, also building of a new public school to 1200 pupils in Nuuk are in their final phase: the construction sector has made the airports it was tasked with building, while the service sector – encompassing accommodation and food services – have been busy creating frameworks aimed at increasing customer capacity, which naturally with new international airports will increase the level of their business activities significantly.

The Greenland government's employment strategy consists of three 'action tracks':

- Self-sustaining labour markets;
- Lower youth unemployment; and
- Guidance and upskilling.

While efforts have been made to strengthen the workforce under these main themes, the employment strategy cannot stand alone. Rather, a holistic understanding of the challenges faced by society are crucial. This calls for a concerted breaking down of silos, with the aim of facilitating collaboration across departments, organisations and municipalities.

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In the last decade, increased labour demand in Iceland can be largely attributed to the tourism and construction sectors, particularly in the countryside. (Photos: Mees Dekker via [Wikimedia Commons](#) and Freepik)

6. ICELAND

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Iceland's economy and labour market

Iceland has a small open economy that is heavily reliant on natural resources. Consequently, production is relatively undiversified, with most exports stemming from fishing, renewable energy and tourism. While the Icelandic economy has historically been heavily dependent on the fishing sector, manufacturing production based on renewable energy has increased rapidly since the turn of the millennium, and the tourism sector has undergone tremendous growth since 2010.

Iceland's productivity is high by international comparison, although it remains lower than that of Denmark, Norway and Sweden. Alongside this, Iceland's high overall labour supply compared to the other Nordic countries and continental Europe has contributed to the country's high GDP per capita. This abundant labour supply is reflected in high employment rates – particularly among younger and older age workers – and low unemployment rates.

As implied by the above, a key characteristic of the country's labour market is that Iceland experiences full employment most of the time.^[16] Another feature of the Icelandic economy is the major shifts in the business cycle seen over the years a side

16. Registered unemployment only went above 4% in four of the years covered by the period 1957–2008, reaching a peak of 5% in 1995 (Statistics Iceland n.d.a).

effect of the country's undiversified production. Although inflation has been at a historic low since the early 1990s, it remains high compared to other Organisation for Economic Co-operation and Development (OECD) countries.

Iceland's labour market is seen as being comparatively flexible, supported by a lenient legal framework – for example, the country's rules on hiring and firing rules are not strict. In practice, however, the labour market is largely regulated through collective bargaining, with trade unions and employers' organisations engaging in negotiations over wages, working time arrangements and employment rights (see e.g. Ólafsdóttir & Olafsson 2014).

Collective bargaining tends to lead to more compressed wage distribution when it is centralised or coordinated (OECD 2018). In Iceland, collective bargaining is centralised, with negotiations taking place across occupations. As such, it is unsurprising that wage distribution in Iceland is more compressed than in many other countries. Under the 2019–2022 collective bargaining agreement, wages increased in nominal terms, meaning those on lower wages received a proportionally larger increase. This significantly compressed wage distribution, reducing the decile ratio from 2.64 in 2019 to 2.46 in 2022.

Compressed wage distribution, coupled with high labour market participation rates, leads to a more even distribution of income. Alongside this, Icelandic society shares many aspects of the Nordic welfare state – although social expenditures are lower than in other Nordic countries, this is partly explained by Iceland's favourable age distribution and high employment rate. Measured by the Gini coefficient of disposable income, Iceland has the most even income distribution of the Nordic countries (see Table 6.1).

Table 6.1. Selected economic and social indicators for Nordic countries, France, Germany, USA and OECD average.

	Productivity ¹	GDP per capita ²	Employment ³	Unemployment ³	Wage distribution ⁴	Income inequality ⁵	Social expenditure ⁶	Inflation ⁷	Growth volatility ⁸	Trade union density ⁹
Denmark	74	55.548	74%	5.7%	2.58	0.268	31.8%	1.9%	2.2	67%
Finland	63	46.454	70%	8.0%	2.57	0.273	27.8%	2.0%	2.9	59%
Iceland	66	52.433	83%	4.7%	2.46	0.235	22.3%	4.3%	4.2	91%
Norway	84	64.501	76%	3.9%	2.34	0.285	24.6%	2.4%	1.4	50%
Sweden	75	53.375	74%	7.6%	2.17	0.286	29.6%	2.0%	2.5	65%
France	65	42.950	65%	8.9%	2.95	0.298	33.3%	1.9%	2.5	11%
Germany	69	50.225	73%	5.9%	3.33	0.303	28.7%	2.0%	2.3	16%
United States	75	63.659	70%	5.9%	4.80	0.395	28.0%	2.4%	1.8	10%
OECD average	54	44.632	66%	6.7%	3.36	0.311	21.9%	2.7%	3.1	24%

Notes: ¹ GDP per hours worked in US dollars, PPP converted (2022), source: OECD (n.d.a); ² GDP per capita in US dollars, PPP converted (2022), source: OECD (n.d.b); ³ Average 2003–2022. Source: OECD (n.d.c); ⁴ Decile ratios of gross earnings (2021), source: OECD (n.d.d); ⁵ Public, mandatory private and voluntary private social expenditure (average 2000–2019), source: OECD (n.d.e); ⁶ Gini coefficient for disposable income (newest available year), source: OECD (n.d.f); ⁷ Harmonised index of consumer prices, the OECD average excludes Turkey (average 2000–2023), source: OECD (n.f.g); ⁸ Standard deviation in GDP growth 2000–2023, source: OECD (n.d.h); ⁹ Share of employee's who are members of a trade union (newest available year), source: OECD (n.d.i).

Labour shortages

Labour markets are constantly evolving. Firstly, changes in aggregate demand caused by business cycle fluctuations affect labour demand: during periods of expansion, labour demand increases, meaning new jobs are created and fewer jobs destroyed, leading to an overall increase in employment. Secondly, long-run trends unaffected by business cycle fluctuations – such as technology and structural changes – can affect labour demand either positively or negatively. Technological advances mean that goods and services can be produced using fewer inputs, which may cause a decline in employment or changes in relative employment. John Maynard Keynes (1930) famously predicted that by 2030 the work week would only be 15 hours due to productivity growth. In reality, however, increased productivity has led to increased consumption rather than increased leisure, with overall employment failing to decline over the long run. More specifically, while male employment rates have declined over the course of the 20th century, this has been offset by increases in female employment rates (see e.g. Borjas 2024).

Labour market dynamics can be examined from both the job and employee side. On the job side, the net employment change equates to the difference between job creations and destructions (which may or may not be due to business cycle fluctuations). In many OECD countries, more than 10% of jobs are created and more than 10% destroyed each year, meaning that more than 20% of jobs are reallocated (not counting intra-firm reallocations) (Haltiwanger et al. 2010). Although these rates may be affected by business cycle dynamics, the implication nevertheless is that there are substantial numbers of job creations and destructions every year (Davis et al. 2012).

Employees transition between employment, unemployment and nonparticipation. Here, the change in hirings (flows from unemployment and nonparticipation to employment) less job separations (flows from employment to unemployment and nonparticipation) equals the net employment change.

Although there is no available data on job creations and destructions in Iceland, internationally comparable data on employee transitions is available. Every year, more than 90% of employees remain employed in Iceland and other European countries, whether in the same or a new job.

Iceland's unemployment rate over recent years has been relatively low compared to other European countries. In fact, going back further in time it was exceptionally low: from the post-war era until the early-1990s, registered unemployment remained aside from a single year below 2%. Reflective of these trends, the transition into employment of individuals not working either unemployed or outside the labour force is very high in Iceland, while long-term unemployment is very low (see Figure 6.1). Thus, on average, few people are unemployed at any given time and tend to find employment within a short period of time. Although this could be

indicative of more pronounced labour shortages, it may also suggest that Iceland's labour market is more efficient.

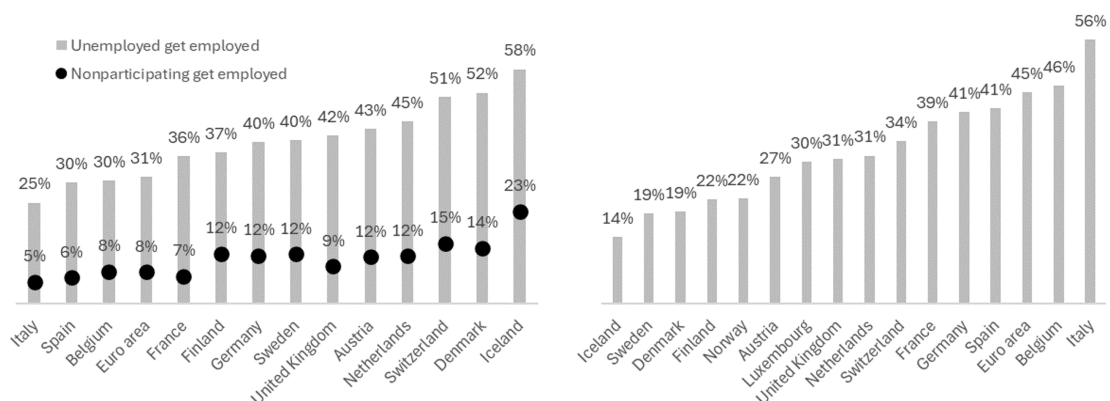


Figure 6.1. Annual transition from unemployment and nonparticipation to employment, average 2011–2023 (left); share of unemployed who remain unemployed for 12 months or longer, average 2009–2023 (right).

Source: Left: Eurostat (n.d.a); right: Eurostat (n.d.b).

In a perfectly competitive labour market, neither labour shortages nor unemployment would exist, as wages would simply adjust until both disappeared. This, however, is not a satisfactory analytical starting point for the labour market. Instead, a widely used approach in labour economics is 'search and matching' theory, which is based on the idea that hirings are the outcome of a successful match between a vacant job and a worker looking for such a job. Thus, the more vacant jobs and more workers looking for a job there are, the more matchings will result. This relationship results in a Beveridge curve, which for Europe shows a negative relationship between job vacancies (Figure 2). The further the Beveridge curve extends towards the upper-right quadrant, the less efficient the labour market, as more vacancies are needed for a worker to get a job. An economy moves along the Beveridge curve over the course of a business cycle: during an expansion, vacancies increase relative to unemployment, with the opposite holding true for a contraction.

Over the period 2019–2023, there were large movements along the Beveridge curve in Iceland (see Figure 2). In particular, the impact of the Covid-19 pandemic was substantial due to tourism's large share of Iceland's labour market, meaning both the economic contraction and subsequent upswing were greater in Iceland than in many other European countries. More specifically, unemployment was high and vacancy rates low during the downturn, a situation that reversed during the upswing. During these large swings, Iceland's Beveridge curve remained close to both axes. In other words, unemployment was low in relation to any given vacancy

rate, meaning labour market matchings remained efficient throughout this turbulent period. This is in accordance with the fast transitions from unemployment to employment generally seen in Iceland. The underlying causes of Iceland's matching efficiency (low mismatch between available vacancies and unemployed) are, however, not fully clear. Relevant factors include labour mobility, a lenient legal framework, the small size of the country, work ethic, and gender equality leading to high female employment rates (Hall & Zoega 2014).

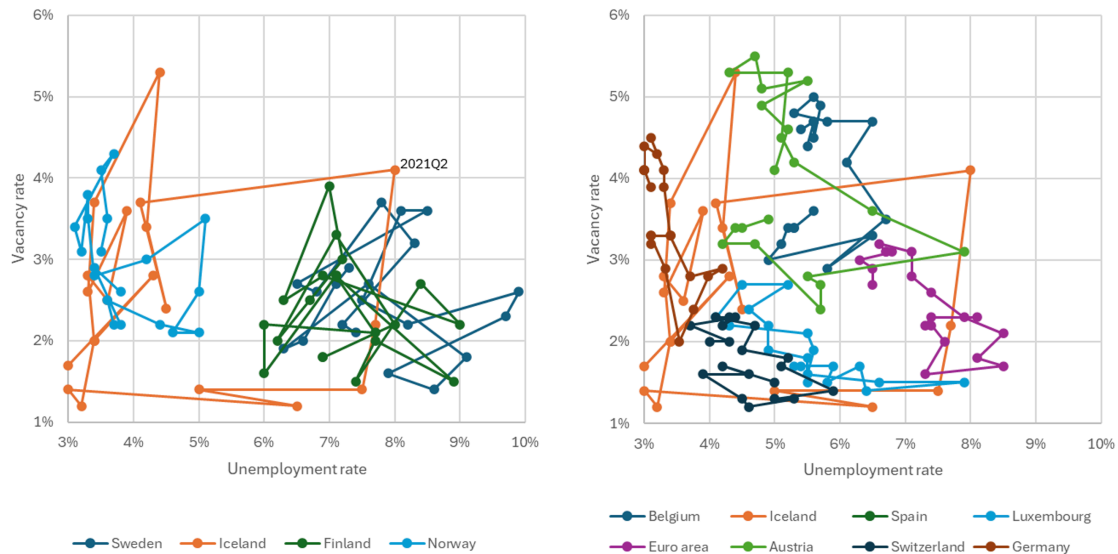


Figure 6.2. Comparison of Beveridge curve across European countries, 2019–2023.

Source: Eurostat (n.d.c) and Eurostat (n.d.d).

A labour shortage means there is excess demand for labour (i.e. vacancies are high relative to unemployment). As such, a widely used labour shortage indicator is the ratio of vacancies relative to unemployment (Causa et al. 2022). According to this measure, labour shortages in Iceland have been at a comparable level to Norway, and higher than in Sweden and Finland (see Figure 6.3). The measure also suggests that labour shortages are neither particularly high nor particularly low in Iceland.

Another labour shortage measure relies on regular questionnaires asking managers if they believe there is a shortage of employees. In the first quarter of 2024, 37% of managers believed there was a shortage of employees. In recent years, the percentages provided by this measure have been somewhat higher compared to earlier upswings (Central Bank of Iceland n.d.). When asked about where the greatest shortfall in staff is to be found, 60% of managers referred to workers involved in crafts and related trades (Federation of Icelandic Industries 2024). Meanwhile, a recent Minister of Health working group report flags a lack of health and social care employees in some rural areas (Ministry of Health 2023).

It should be noted that the job vacancy-to-unemployment ratio does not measure movement along the Beveridge curve, nor, in principle, labour market efficiency. For example, Germany and Switzerland appear to have similar levels of labour market efficiency, but Germany faces much higher labour shortages.

While the concept of labour shortages is bound up with business cycles, there are substantial differences between countries in terms of job vacancy-to-unemployment ratios over longer periods of time. In other words, labour shortages can be both structural and related to business cycle fluctuations, with the first of these two drivers of primary interest in the context of this chapter.

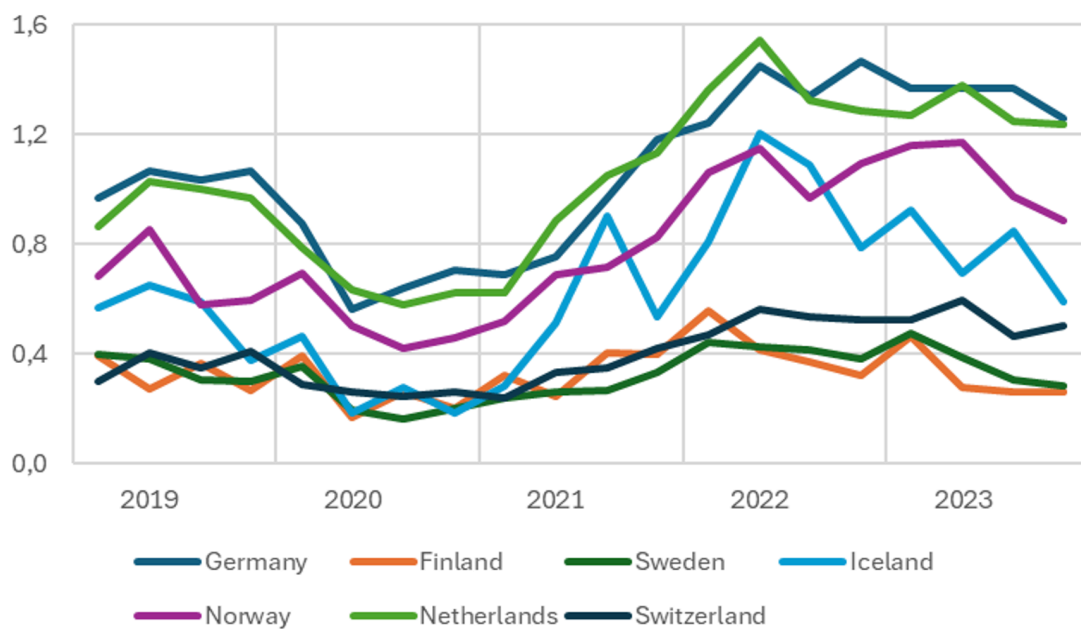


Figure 6.3. Job vacancy-to-unemployment ratio.

Sources: Eurostat (n.d.c) and Eurostat (n.d.d).

Regional development

Iceland in the 20th century was characterised by high population growth and the rapid expansion of the Capital Region, driven by both high fertility and internal migration. The current century has, however, seen lower fertility rates and a substantial increase in immigration (Bjarnason & Garðarsdóttir 2022). Here, immigrants are defined as individuals not born in Iceland.

The share of immigrants in the Icelandic population remained around or below 5% throughout the 20th century, before rising steeply from 5.3% in 2000 to 21.3% in 2024. The majority of this growth has taken place over the past ten or so years, and while the current share of immigrants in Iceland is not particularly high, the rate of

increase is significant. In total, roughly half of Iceland's population growth since the turn of the century is attributable to immigrants.

Although Iceland is not a member of the European Union (EU), it has been a member of the European Economic Area since 1994, which enables free movement of labour. In 2004, a number of Eastern European countries joined the EU. Following this, from 2011 onwards, Iceland experienced considerable increases in labour demand, accompanied in turn by a significant influx of migrants. Since the turn of the century, differences in immigration patterns have seen the Capital Region experience higher population growth compared to the countryside, where such growth is very heterogeneous.

Immigration is usually driven by job opportunities, meaning immigrants tend to be of working age – over half of Iceland's foreign residents are 20–40 years old (Bjarnason & Karlsson 2022). This affects the population pyramid, reducing the average age. Moreover, relative to the country's overall population, immigrants are more likely to work in the industrial, building and fishing sectors, and less likely to work in service sectors other than tourism and the public sector.

Employment growth over recent decades has mainly been driven by the tourism sector, particularly in the countryside – in many regions, the sector accounts for 40–50% of employment growth. Differences in population growth by region are largely explained by immigration from abroad, with a likely explanation being that labour demand has varied between regions. Areas with smaller growth have fewer immigrants and have experienced larger increases in average age, as immigrants tend to lower the average age (Table 2). Two regions in Iceland – the North-west and the Westfjords – experienced population decline over the period in question. Although their respective populations fell until 2016, however, this trend has at least in part been reversed since then.

Table 6.2. Population statistics by region.

	Share of population	Growth 1998-2024	Average age 1998	Average age 2024	Share immigrants 2023
Capital Region	64%	48%	34.1	38.2	21%
East	3%	11%	34.0	39.1	12%
North-east	8%	11%	33.8	39.4	11%
North-west	2%	-12%	34.5	40.3	3%
South	9%	48%	33.3	38.3	17%
Southern Peninsula	8%	97%	31.8	36.8	33%
Westfjords	2%	-16%	32.5	39.9	25%
Westland	5%	25%	33.7	39.0	16%
Total	100%	41%	33.8	38.3	20%

Source: Statistics Iceland (n.d.b).

As in most countries, there are regional differences in mean income across Iceland. The East and the Capital Region boast the highest average earnings, while the North-west has the lowest, with earnings 22% lower than in the East. Although Iceland's regional differences in average production are among the lowest in Europe (Byggðastofnun 2020), the differences in earnings between the Capital Region and the country's other areas have increased since 1990, as shown in Figure 4.

The share of employees in service sector jobs (e.g. the information, communication and financial sectors) is substantially higher in the Capital Region compared to the countryside. Wholesale and retail jobs also have a higher share of employment in the Capital Region (see Figure 6.4).

The countryside, by contrast, is characterised by a higher proportion of employees working in industry, fishing and agriculture. When it comes to tourism, the share seen in urban and rural regions is roughly equal, although this masks significant heterogeneity across countryside areas, with tourism particularly prominent in the South, Southern Peninsula and North-east. The aluminium production sector, meanwhile, is relatively prominent in the East and West, with fishing relatively large in the Westfjords and the West (Byggðastofnun n.d.a).

Developments in Iceland's main export sectors – fishing, aluminium and tourism – are crucial when it comes to explaining regional dynamics. The fishing industry underwent significant changes in 1990 when the quota system was implemented in its current form. Quotas are allocated to vessels based on their historical catch shares and, from 1990, could be bought and sold. This led to a relocation of landing ports, which had been stable for many years – for example, the Westfjords's share of the total quota landed decreased after 1990.

The aluminium industry experienced significant milestones in 1997 and 2007, when aluminium plants began production in the West and East, respectively. Partly as a result of this, employment in manufacturing is substantial in these regions, with tangible impacts on population growth in the East. Prior to the construction of the aluminium plants, the region's population had experienced a steady decline.

Finally, tourism is most pronounced in the South, Southern Peninsula and North-east, with the highest growth seen in the former two regions, where most if not all tourists visit. These two regions also experienced high population growth, particularly in 2005–2009 and 2016–2024. The Southern Peninsula has the highest share of immigrants. Tourism is also very pronounced in the Capital Region, where the share of employees in the sector is only 1.3% lower compared to the countryside.

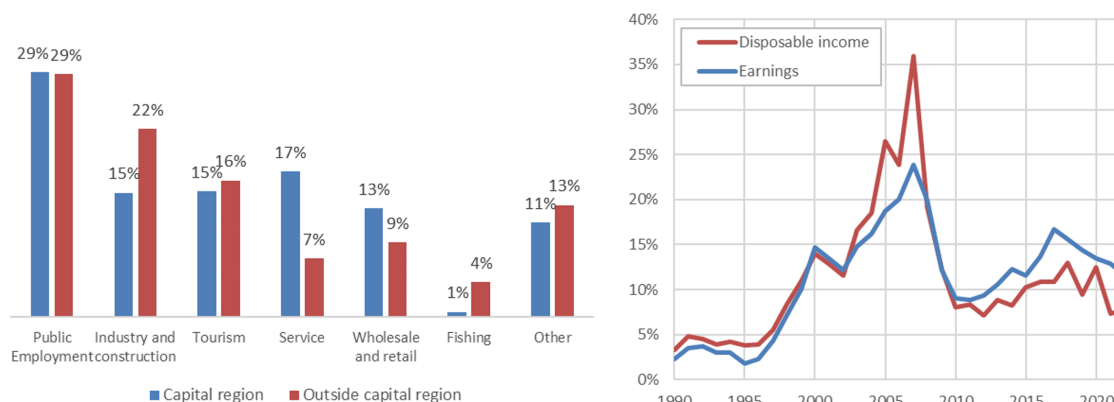


Figure 6.4. Share of employees by region (left); mean income difference between Capital Region and elsewhere (right).

Source: Left: Statistics Iceland (n.d.c); right: Statistics Iceland (n.d.d).

Until the 2008 financial crisis, regional differences in unemployment were relatively stable, with the disparity between the highest and lowest regional unemployment rates fluctuating around the 2 percentage point mark. Although unemployment increased everywhere following the financial crisis, some regions experienced much

greater rises than others, as shown in Figure 6.5. Surprisingly, those regions with the lowest unemployment rates were also those that experienced the lowest population growth. Here, a likely explanation is that poor job prospects led to emigration or reduced immigration.

The Westfjords – the region that saw the largest population decline over the period 1998–2024 (see Table 6.2) – has exhibited a relatively low, stable unemployment rate. By contrast, the Southern Peninsula – which saw the most rapid population growth over the same period – has experienced higher, more volatile unemployment rates. Labour mobility therefore appears to contribute to the Icelandic labour market's efficiency.^[17] If true, this suggests individuals already in Iceland, as well as immigrants arriving in the country, move to areas with the greatest labour demand, thereby reducing labour shortages.

Data on vacancies by region only covers positions registered at the Directorate of Labour, and so does not cover all vacant positions. As such, the data for all vacancies used to create Figure 6.2 is based on estimations. With this limitation in mind, Figure 6.6 presents Beveridge curves for the Capital Region and the countryside using monthly data. Although this data is more volatile, these curves indicate that the countryside has a somewhat more efficient labour market than the Capital Region (i.e. less unemployment for a given number of vacancies), the difference is not large.

Finally, labour shortages, estimated by vacancy-to-unemployment ratio, are somewhat higher outside the Capital Region than within it (see Figure 5). Again, however, the difference is not large.

17. Granger causality tests indicate that unemployment causes population development, rather than in the opposite direction. Granger causality measures which variable increases first, thereby indicating whether a relationship is causal.

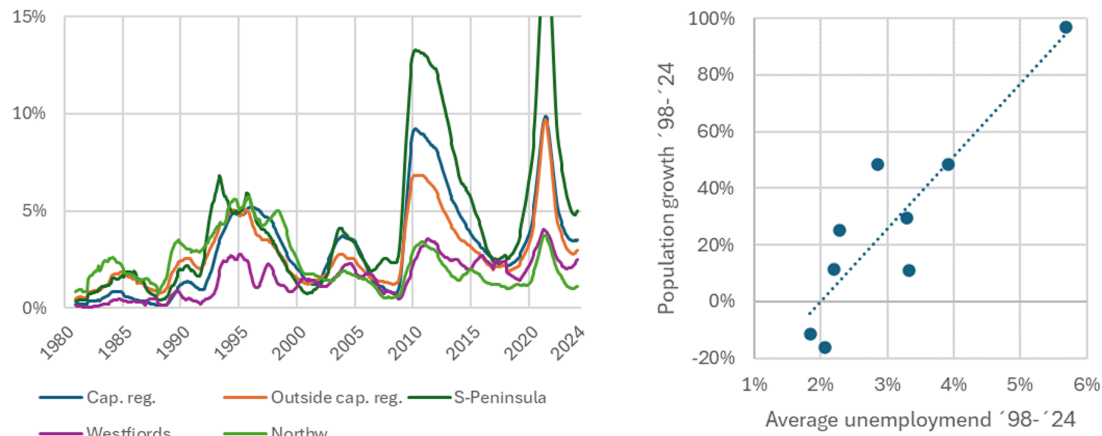


Figure 6.5. Unemployment in selected region, 12-month rolling average (left); relationship between unemployment and population by region (right).

Source: Left: Directorate of Labour; right: Directorate of Labour and Statistics Iceland (n.b.b).

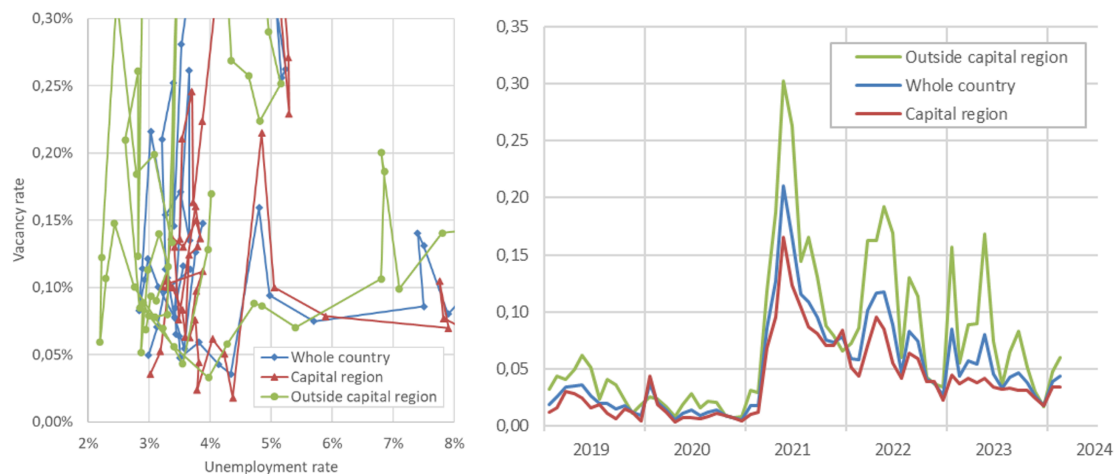


Figure 6.6. Beveridge curve (left) and vacancy-to-unemployment ratio (right) by region 2019–2023.

Source: Directorate of Labour.

In conclusion, labour mobility between regions, together with immigration, appears to have been effective in matching Iceland's labour demand. Overall, people have moved to those areas with the greatest job prospects, with the Southern Peninsula a prime example of this trend. Thus, regional problems are mostly related to poor job prospects rather than labour shortages.

Regional policies

Iceland has various policies aimed at strengthening rural areas. For the most part, however, such measures are designed to increase employment opportunities in rural areas, rather than address labour shortages.

The Icelandic parliament's 15-year regional plan for 2022–2036 focuses on enhancing infrastructure and public services across the country, with the overall objective of ensuring equal access and fostering sustainable communities. The plan contains numerous actions designed to boost employment, support demographic challenges and promote balanced regional development. It also includes a strategy for moving government jobs from the Capital Region, which currently hosts a disproportionate number of such positions, to other areas.

The Icelandic Regional Development Institute (*'Byggðastofnun'* in Icelandic) is an independent state-owned institute tasked with encouraging settlement and economic development in rural areas. Its remit includes a particular focus on ensuring equal access to employment and housing for all residents (Byggðastofnun n.d.b). Byggðastofnun, among other things, gives out loans to boost regional employment, provides consultancy services and monitors regional settlement trends. It also runs an initiative called 'Fragile Communities', which is supposed to boost local economies and infrastructure.

The transition from public investment fund-based loans to a market-driven quota system in 1990 transformed the Icelandic fisheries sector. While the new system enhanced efficiency, it led to shifts in port activities and reduced employment in some areas (Hall et al. 2002). Targeted community and by-catch quotas have now been introduced to address these socioeconomic challenges and stabilise vulnerable rural economies. In practical terms, however, they only represent a modest adjustment within the broader quota framework (Ministry of Food, Agriculture and Fisheries 2023).

The establishment of aluminium industries in Iceland, especially in the rural East and West regions, has significantly influenced local development and employment. These industries have created numerous job opportunities and played a central role in the development of infrastructure and energy resources, in turn supporting broader economic growth. Although the policies introduced to assist Iceland's aluminium sector may not primarily have been intended as regional policies, they have nevertheless supported the local development of certain regions (Institute of Economic Studies 2009).

Concluding remarks

As has been discussed, Iceland's Beveridge curve indicates that the country experiences efficient labour market matching – that is, relatively few vacancies are needed for an unemployed individual to get a job. This can likely be attributed to labour mobility, particularly immigration, with people moving to areas with high labour demand and away from areas with low labour demand. As such, labour shortages do not appear to be significant in either the Capital Region or the countryside.

While it is difficult to state exactly why people immigrate to Iceland, immigration in general is largely driven by job opportunities. Given migrants from Eastern Europe constitute the bulk of those coming to Iceland, it seems likely that the country's high labour demand and wages have contributed to the increased immigration seen in recent years.

Over the past decade, increased labour demand has mainly been seen in Iceland's tourism and construction sectors, particularly in the countryside. Going forward, other sectors may experience increased labour demand, with the degree to which immigration will meet those demands as yet unclear.

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Besides the primary sectors in Norway, there are two expanding businesses demanding unskilled or semiskilled labour, the fish farming production chain, and the nature-based tourism sector. (Photos: Terje Rakke/Visitnorway.com and iStock)

7. NORWAY

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Introduction

Since the early 1990s, Norway's labour market has largely seen full employment and high rates of occupational participation, with unemployment only exceeding 4% for short periods. As of February 2024, Statistics Norway placed the country's unemployment rate at 3.8%. Surprisingly, however, the region with highest unemployment rate is the Oslo (capital) region (4.1%), while the corresponding percentage for Northern Norway is 2.7% (SSB 2024).

With this in mind, the following sections set out the historical backdrop to Norway's labour shortages, before going on to explore the present situation and strategies available to counter rural labour shortages. The analysis is based on the available statistics, scientific literature and relevant policy documents.^[18]

'Rural labour shortages' have traditionally been discussed in the context of seasonal labour, primarily in agriculture, as well as in Norway's case seasonal fisheries. Today, however, rural labour shortages pose challenges even when it comes to filling full-time positions in primary production, the manufacturing industries, and public and private services. While acknowledging the issue of supplying seasonal labour

18. In particular, two documents have proved invaluable to this report: Distriktssenteret (2020) and Kommunal- og distriktsdepartementet (2023).

remains, this chapter's focus is on recruiting personnel for full-time jobs.

Today's situation is the inverse of what has traditionally been the case in Norway's rural areas, which used to be subject to high unemployment rates and out-migration. This was due both to high birth rates and limited job opportunities in agriculture- and fisheries-dominated local economies. The country's urban areas, by contrast, were able to offer jobs to incomers. In response to this situation, a strategy of modernising the periphery through industrial development was pursued (Teigen 2019: 44). Thus, national-level regional policies have long sought to create new jobs in order to reduce rural unemployment and counter large-scale rural-to-urban migration.

The United Nations Food and Agricultural Organization (FAO) observes that, at the global scale, underemployment still dominates the rural scene: 'Over three quarters of the world's poor live in rural areas and many of them depend on agriculture to make a living. More and better employment opportunities will need to be created for rural populations' (FAO, 2024). As the data presented in this chapter indicates, however, this focus on increasing the number of rural job opportunities is no longer pertinent to the situation in Norway.

The country's rural regions and municipalities are at present in need of people to fill a variety of vacant positions, including in agriculture. One issue is that rural birth rates have dropped, meaning less young people are entering the rural labour force. In theory, this should not pose a significant problem, as wide-scale mechanisation in agriculture and fisheries means there are now far less jobs available in Norway's primary sectors. In reality, however, Norway's rural economy swelled and became more diversified towards the end of the 20th century, largely due to the expansion of the decentralised welfare state and its in-person services, as well as the growth in private (non-agricultural) sectors.

Another relevant trend is that young people in rural areas no longer find industrial employment attractive compared to jobs requiring higher education. As a consequence, Norway's revolution in access to higher education institutions – generally located in urban centres – has over recent decades drained many rural areas of young people. Graduates are also more likely to settle in the urban centre where they studied, as it is generally easier to find a desired job there than seek a high-skilled job in rural areas. Overall, the growing preference for urban living, especially among young people, seems set to continue, driven by the growth in educational (particularly university-level) opportunities and expansion in research and development (R&D) employment.

Even if today's rural municipalities can offer jobs to highly qualified people, as well as affordable and spacious housing, they cannot compete with cities when it comes to providing highly-skilled people with a larger, more diversified working environment. Given the current emphasis on climate policies, living in a densely

populated (urban) environment may also be preferred due to the lower emissions generated by work and everyday activities.

Against the above backdrop, Norway's rural areas face a twofold recruitment problem: firstly, there is a shortage of local people available or willing to work in the industrial and primary sectors; and, secondly, it is proving difficult to recruit people to fill key positions (mainly public sector jobs demanding a higher education).

Methods and approach

Demarcating 'rural Norway'

Traditionally, Norway's rural areas have been conceived of as dominated by agriculture and fisheries. Today, however, employment in primary production accounts for only a minority of total employment in such areas. Instead, the expansion of the local welfare state means the public sector is responsible for the majority of positions, even in the most peripheral municipalities.

From an employment statistics perspective, the country's rural areas are now almost indistinguishable from its cities: the labour force is dominated by tertiary occupations, and unemployment rates are generally low. Nevertheless, discriminating between rural and urban areas makes analytical sense, as the former are located in the geographical periphery where settlement densities are far lower, involving vast areas of land per capita.

Studying development in 'rural areas' poses some methodical problems, as many administrative units – from which statistical data is derived – include both urban and rural areas. For instance, some large municipalities include a distinct urban centre surrounded by villages and farming areas (e.g. Tromsø in Northern Norway). The same issue applies to Norway's counties ('*fylker*' in Norwegian), which – apart from Oslo – are made up of relatively large urban centres plus rural municipalities that cover large areas but have small populations. Regional-level statistics on labour shortages therefore conceal the true extent of the urban/rural divide, despite some regions being more rural than others. In the latter regard, Norway's three northernmost counties (Nordland, Troms and Finnmark), alongside Innlandet in the south, are the four most rural regions, while the country's other seven regions are relatively more urban.

Studying rural labour shortages in Norway thus benefits from a case-based approach capable of taking into account the diversities, contexts and micro-level strategies involved. In this respect, Norway's municipal structure represents an obvious advantage: the vast majority of the country's 357 municipalities can be classified as 'rural' that is, located in the geographical periphery with a decentralised settlement structure. Here, the 'centrality index' developed by Statistics Norway, which groups the 357 municipalities into six categories ranging

from most central (level 1) to most peripheral (level 6) (Høydahl 2020), offers a suitable means of capturing the country's rurality as it currently stands.

The argument for utilising this classification rests on the importance of geographical distance for understanding and handling labour recruitment problems. Municipalities classified as belonging to levels 5 and 6 are the most peripheral, and are routinely regarded as constituting the rural scene in Norwegian regional analysis and politics. Today, municipalities classified as level 5 (96) and 6 (113) comprise 209 of Norway's 357 municipalities.

Micro-level and macro-oriented strategies

The handling of rural labour shortages is multi-faceted. At the (most) micro-level, family-based units in agriculture typically expect a son or daughter to take over the farm. In addition to family recruitment, smaller enterprises utilise local community networks to recruit personnel. Moving up a step, many expanding firms seek to recruit workers from Eastern Europe to work (often temporarily) in rural areas. Public (mainly municipal) services in rural areas are, meanwhile, often forced to offer higher wages or allow key personnel living in urban areas to commute in for intensive work periods, and engage in remote working, resulting in an impoverished local work environment.

As the above implies, most of the micro-level strategies for dealing with labour shortages developed by family-based productions, businesses and public agencies are informal and so may be regarded as beyond the scope of political or organisational interventions. Nevertheless, informal recruitment strategies should be borne in mind, for example in the context of variations in a municipality or firm's networking capacity. The stock of social capital available at the local community level is important in this context: places with a rich civil society produce overlapping social networks, which enhance the distribution of information (e.g. about upcoming job vacancies) and provide a template for cross-sectorial cooperation and problem-solving (Putnam 2000).

While the primary focus of this chapter is national and regional strategies for coping with rural labour shortages, strategies deployed at the municipality level or the level of branch/sector organisations (e.g. the Farmer's Union, the NHO/Confederation of Norwegian Enterprise) are also of relevance. Thus, when analysing Norway's rural scene, one can observe responses to, and the effects of, formal strategies developed at a central, regional, municipal and business organisational level, as well as at the level of the household-as-producer.

Finally, in setting the scene for this chapter's analysis, it is important to note the rural municipality's twofold role: firstly, in demanding (qualified, skilled) labour, and, secondly, as strategy developer and actor in the wider field of labour recruitment.

Regional and rural labour shortage variations

Updated statistics from NAV (the Norwegian Labour and Welfare Administration) show a surprisingly low variation between Norwegian regions, irrespective of location or population size (NAV 2023: 7–8). Overall, 22% of businesses that responded to NAV's 2023 questionnaire had a labour recruitment problem, ranging from 18% of businesses in Oslo and its environs, to 25% in Nordland and 28% in Troms and Finnmark in Northern Norway (NAV 2023: 7–8). In Southern Norway, meanwhile, the percentage (discounting the Oslo region) was close to the national average. Broadly speaking, therefore, Norway's labour shortage problems are most acute in the rural north, and of least significance in the capital region.

The urbanisation/education nexus

One obvious driver of the situation outlined above is the ongoing mobility of young people leaving rural municipalities in the north to study or work in the Oslo region. While such mobility could previously be explained by a lack of local job opportunities in the north, this is no longer the case. Today, Northern Norway offers a wide range of job types in the municipal sectors, as well as in fish farming and tourism. However, with young people increasingly motivated to undertake higher education, which generally requires attending institutions based in larger cities – Oslo especially offers a wide range of educational programmes – the process of rural-to-urban migration continues. This is reinforced by the fact that young people moving to larger cities are unlikely to make a permanent return to the rural municipalities they came from. As a consequence, when a descendent eventually take over their parent's house or property, it tends to be utilised for the purposes of leisure or vacations. For decades, rural municipalities and local business leaders have unsuccessfully attempted to address this problem of out-moving, non-returning young people seeking higher education.

The overwhelming urban bias of Norway's higher educational system represents an ongoing issue for the country's rural municipalities. At the same time, the easy access to higher education presented by generous grants/loans and public student housing provides advantages to both society at large and the individual. Rural municipalities themselves stand to benefit in terms sourcing people to fill vacancies requiring higher education qualifications – something that is increasingly the case in their diversified local economies. Even so, the mismatches evident in the current system (highly educated youths seldom apply for appropriate jobs in their home municipality) need to be resolved, without questioning the validity of the educational system as such.

New jobs: Fish farming and year-round tourism

Another aspect of the rural labour market is the demand for unskilled or semi-skilled labour, typically in agriculture and fisheries. Besides the primary sectors, there are two expanding business areas demanding this form of labour: the fish farming production chain and nature-based tourism. Fish farming has undergone enormous expansion in recent years, especially in remote rural areas. As a result, the fish farming production chain (e.g. in the 41 salmon slaughterhouses along the coastline; in smolt production; on fodder supply ships; monitoring the fish; R&D; financing; truck-driving to export markets) is now estimated to account for at least 10,000 jobs (Nofima 2023), most of which are in rural (coastal) areas.

An expansion in (mainly) air-borne winter tourism – and the attendant proliferation of driving, catering, guiding and lodging activities – has turned what were previously seasonal jobs into full-time occupations. Moreover, the expansion of the second homes industry in rural areas has led to increased demand for construction workers, as well maintenance and infrastructure work.

In sum, low birth rates and an ageing population, combined with expanding access to higher education, have drained rural communities of what was once regarded as an unproblematic supply level of unskilled and semi-skilled workers. The expansion of the labour market to include all European Union (EU) countries has, however, ameliorated this situation. While some of these labour migrants come for shorter periods, others have decided to relocate themselves in Norway, and not few are weighing the possibility of moving permanently to a rural municipality with their families in this respect, the improvement of living conditions in some East European countries may impact on the recruitment situation for periphery municipalities in Norway.

Elderly care

Recruitment problems vary more between localities/municipalities than between regions. Although some peripheral municipalities have managed to stabilise their workforce in vital sectors – for example, the local school system or elderly care system – others continue to experience rapid staff turnover. The elderly care sector in particular is growing, with rural municipalities all hosting a high proportion of elderly people in their populations. Even so, services for the elderly are assessed by inhabitants as being better in small municipalities compared to the larger cities (Christensen 2020; DIFI 2015). At present, employing immigrants/refugees alongside local unskilled and semi-skilled personnel appears to rural municipalities' favoured approach to satisfying labour demand in this sector. Refugee centres are located in some (though not all) municipalities, potentially providing labour to local municipal services, as well as local industries.

Green sector demand

While some municipalities have managed to attract new private industrial enterprises in the green energy sector, large-scale industries demand more labour than can be provided locally or even regionally. As such, they have to rely on workers coming from abroad.

Strategies and actors

In answering the question of what strategies and solutions to rural labour shortages exist in Norway, we present a simple conceptual model that, as a first step, acknowledges the existence of actors on six levels. These range from the national government level (1) to family-based production units performing informal strategies (6) (see Table 7.1).

Furthermore, the model distinguishes between *direct* and *indirect* strategies aimed at addressing rural labour shortage. Direct strategies address the potential group(s) to be recruited, whether local 'reserves' or 'recruits' who can be mobilised and/or upgraded for local work, or targeted groups that can be convinced to come and work in a rural municipality/area. By contrast, indirect strategies are premised on the idea that jobs and local contexts are intertwined, meaning strategies aimed at nurturing community environments are decisive for recruitment.

Actors: A multi-level approach

Below, we present six actor types that contribute to the handling of rural labour shortages in Norway. In each case, the strategies highlighted are of a more general nature, while the 'measures' and 'solutions' demonstrate how these strategies are operationalised.

As shown in Table 7.1, five of the six actor types have developed both *direct strategies* aimed at influencing the occupational and locational choices of individuals/groups in favour of rural areas, and *indirect strategies* designed to create a rural environment attractive to long-term habitation (and therefore work). The following sub-sections explore the categories presented in Table 7.1 in further detail.

Table 7.1. Actors and types of strategies aimed at combatting rural labour shortages in Norway.

Actor/Institutional level	Direct strategy example(s)	Indirect strategy example(s)
National government	Flexible education; refugee resettlement	Affordable rural housing programme
Regional authority	Apprenticeship/trainee programme in secondary education	Strengthening vocational schools; rural/urban access (roads, public transportation)
Municipal authority	Wage incentives; information; back-moving campaigns; refugee employment	Place attractiveness projects; housing strategies; place-adapted collaborations between actors
National business organisations	Information and brokering directed towards labour migrants	None
Firm or single business (informal) strategies	Recruitment firms; Eastern Europe focus; network transactions across national borders	Projects for family housing
Household-as-producer (informal) strategies	Community networking	Workplace environment; civil society social integration

National-level government strategies and measures

In Norway, the Ministry of Local Government and Regional Development has national-level responsibility for rural and regional development. Given that rural labour shortages encompass a broad range of policy areas (e.g. education on several levels, employment, business, housing, agriculture), the Ministry's role is largely geared towards coordinating public efforts rather than being a direct actor.

This coordinating role is explicitly expressed in the 'District and Regional Policy Reports' to the Norwegian Parliament, issued every four years, the latest having been submitted in 2023 (Kommunal- og distriktsdepartementet 2023). These reports offer a broad overview of regional development issues, thereby preparing the ground for the funding and implementation of both established and novel strategies. In the 2023 report, the challenge of rural labour shortage is highlighted as follows: 'In many rural municipalities, the biggest challenge today is not a lack of jobs, but that public and private enterprises lack the labour they need' (Kommunal- og distriktsdepartementet 2023: 10, English version).

The strategies proposed by the Ministry are threefold: 1) target people already living in rural areas; 2) bring outside people into rural areas; and 3) nurture local living conditions that are conducive to attracting people into rural areas, and encouraging them to stay once there. Whereas the first two strategy types can be collapsed into the direct category, the third covers indirect 'attractivity' strategies.

Direct strategies

- **Decentralised (flexible) higher education:** One of the Ministry's main focuses is on offering people living in rural areas access to higher education in order to enable better matches between available human resources and the local demand for labour. Towards this end, universities and colleges, as well as decentralised 'study centres', will be encouraged to develop flexible programmes aimed at educating – among other key professions – prospective nurses, kindergarten personnel and schoolteachers.
- **Into work mobilisation:** Early retirees, partially disabled people and young dropouts will be given assistance by the NAV to enter local labour markets.
- **Targeting of graduates, European Economic Area (EEA) residents and refugees:** The Ministry's targeting of incoming people encompasses three categories of potential workers: 1) young people who have recently completed university or college degrees and are seeking highly-skilled employment; 2) Eastern Europe residents seeking employment in the rural industries; and 3) refugees being resettled in the countryside. In the latter case, the Ministry proposes more rapid settlement of refugees in rural areas, evidently with the hope that at least some will settle permanently. In the case of recent graduates, a number of measures are proposed (alongside several that have long been practiced), including enhancing the

existing relief scheme for student loans, and (from August 2024) providing free kindergarten services for parents living in 'the action zone' (comprising Finnmark, plus the seven northernmost municipalities in Troms county).

Indirect strategies

- **Affordable housing measures for rural areas:** Given that Norway's rural areas have experienced decades of out-migration, it would be natural to assume that young people (and others) moving to such areas will have easy access to housing. In reality, however, this is not always the case, as those who have migrated from rural areas often keep their properties for leisure and vacation use (including short-term rentals to tourists). The Ministry therefore intends to strengthen the rural profile of the Norwegian National Housing Bank through a special housing grant scheme that prioritises rural municipalities, 'especially at centrality level 6'. Moreover, the national planning guidelines 'will open up the possibility of facilitating new housing in sparsely populated areas' (Kommunal- og distriktsdepartementet 2023: 13, English version).
- **Proximity to public services:** Despite long distances and small populations, basic services – including primary education, childcare and elderly care – are well developed in small municipalities (Christensen 2020). More advanced services, such as those provided by doctors and psychologists, have, however, been negatively affected by the difficulty of recruiting personnel to small municipal units. As such, the Ministry intends to stimulate inter-municipal cooperation as a means of making advanced services more accessible to those living in rural areas.
- **Infrastructure and transportation:** While living in the periphery is now partly compensated for by access to high-quality digital communications, personal mobility – especially for in-moving people – remains essential. Access to safe roads, airports, ferries, harbours and public transportation are all potentially decisive factors when an 'outsider' considers the prospect of rural living. The Ministry is attempting to surmount these obstacles by, among other things, providing free ferry transport for smaller islands, as well as subsidies for regional flight routes.

Regional-level strategies and measures

Norway's regions ('*fylkeskommune*' in Norwegian) have various road-tested means of handling the problems faced by rural municipalities, including administering development funds, bearing responsibility for secondary education, and managing regional roads and public transportation. Thus far, however, the rural labour shortage problem has not been explicitly addressed, although regional authorities have tried to tackle the problem of low attendance rates in vocational education classes.

The regional authorities have responsibility for both urban centres and rural areas. As such, any decisions they make regarding, for example, investments in education or transportation will indirectly impact rural labour shortages. Thus, a transportation system set up to facilitate job-related travel from rural areas into cities may now ironically provide opportunities for job-related travel in the opposite direction.

The vocational school system administered by regional authorities needs to be geared more towards providing rural areas with skilled and semi-skilled labour. On this point, a recent report evaluating the regional competencies policy concludes that regional authorities are primarily concerned with the need for qualified labour *in general*, and not particularly the needs of rural areas. (Samfunnsøkonomisk Analyse 2022: 17). Even so, the strengthening of the vocational school system as part of the national-level strategy outlined above will inevitably have a positive effect on recruitment both to the public sector (health, education) and private businesses (technical education) in rural areas.

Municipal-level strategies

Most rural municipalities in Norway have, over recent decades, developed a diversified public sector labour market in which the majority of positions require higher education (e.g. teachers, kindergarten staff, health sector workers, administrators, IT support, planners, technical staff, carers for the elderly, clergy, police). The private sector, meanwhile, is typically made up of household units in agriculture and fisheries, plus employment in primary-, secondary- and tertiary-sector business enterprises, which demands a variety of qualification types and levels. Some municipalities host high-tech operations, while others do not. This means that although the profile of public sector employment is largely identical across all rural municipalities, private sector demand for labour varies substantially according to local business circumstances. In this respect, some rural municipalities are facing a period of industrial recession, and others periods of stability or expansion.

Direct strategies

The municipality's dual role is challenging when it comes to direct strategies, as the administration must fill vacant positions in its own service systems while also assisting private businesses to recruit labour. A report from Distriktssenteret (2020) highlights two strategies that are likely to have a positive effect on labour recruitment: firstly trainee programmes aimed at both local youths and youths from the region (also Bachelor's and Master's degree-level candidates), with apprenticeships organised in the local public or private sector; and, secondly, programmes enabling the employment of refugees. In the latter case, the national resettlement policy for refugees offers a potential means of addressing labour shortages in rural municipalities.

Indirect strategies

In 2023, the Ministry of Local Government and Regional Development issued a report (the previously mentioned District and Regional Policy Report) entitled 'A Good Life Throughout Norway' (Kommunal- og distriktsdepartementet 2023). The objective implied by the report's title cannot be achieved unless municipalities successfully develop attractive local communities through place development strategies. The notion of a 'good life' encompasses – in synergistic ways – job, house, neighbourhood, family, network, services and leisure opportunities. In rural areas, distances and dispersed farms and dwellings often work against social interaction and community inclusion.

The Distriktssenteret (2020) report also highlights the potential for compact 'semi-urban' centres designed to host shops, public services, inter-generational meeting places, sports and cultural scenes. Here, the challenge is one of creating a social environment capable of strengthening local identity while also conveying a sense of urban modernity. Such centres will not only enhance the well-being of local people, but aid labour recruitment by giving incoming teachers, nurses, administrators and economists a positive impression of the place they are being recruited to, potentially inducing them to remain for a longer period than they initially intended.

Any attempt to convince highly educated people and their families to settle permanently (or at least over the longer term) in rural areas requires strategies conducive to community inclusion and participation, as well as envisaging the potentials for regional, national and international (physical) contacts. Creating and implementing such place development strategies demands collaboration between the municipality, private actors and voluntary organisations. Collaboration of this kind can occur both through informal networking ('development networks') and participatory planning practices.

Municipal housing policies are also crucial for attracting workers to and then retaining them in rural areas. While national policy ('stimulating Husbanken to plan

finance rural dwellings') is important in this regard, ultimately it is the municipalities that implement housing policy. Thus, several municipalities have set out plans for more small and family-size houses in the hope that this will enhance attractiveness and in turn labour recruitment (Distriktssenteret: 15).

The countless variations in how rural municipalities work make it difficult to specify the most effective strategies for recruiting personnel. In most cases, a municipality works with central-level agencies, local businesses, local voluntary organisations and even individual 'social entrepreneurs' to enhance attractiveness (indirectly) and engage with target groups (directly).

Branch or sector organisational strategies

National-level business and agricultural organisations are well aware of their members' problems in recruiting labour. Agricultural organisations in particular provide members with information on 'how to recruit labour from abroad', including exploiting the potential of EEA arrangements between Norway and the EU. Such strategies are of the direct type.

Industrial actors' twofold (direct) strategies

The EEA framework has, in the wake of the EU's eastward expansion, offered opportunities for recruiting Eastern European labour to Norway's expanding rural-based industries (mainly fish farming), as well as longer-standing rural industries within fishing and agriculture. The latter industries had for decades experienced severe problems in recruiting local people – a situation that changed dramatically after the EU expansion in 2004.

Over the 15-year period following this labour market enlargement, the share of foreign workers in Norway's fishing and the fish farming industries (regular jobs) rose from 12% (in 2003) to more than 50% in 2018 (Henriksen 2020: 231). Here, firms have pursued two strategies for recruiting Eastern European workers: firstly, buying services from recruitment firms; and, secondly, recruitment via informal networking, facilitated by the relationships firms have established over time with seasonal workers. Informal networking is also used to recruit young people locally, as there will always be some who do not wish to pursue a career dependent on higher education.

The strategies implemented by firms (and farming households) are mainly oriented to the labour market and therefore direct. Over time, however, firms may consider the potential of creating an attractive work environment. In particular, medium-sized and larger firms may pursue a strategy of making family dwellings available, thereby encouraging workers to plan for a longer-term future in the local community.

Concluding remarks

Overall, the data and perspectives presented in this chapter suggests that an indirect strategy of enhancing place attractiveness – steered by the rural municipality in its role of ‘community developer’ – is the most effective way of coping with Norway’s rural labour shortage problems. Such an approach necessitates cooperation with local industries and voluntary organisations; support from regional and national centres of local community expertise; and, inevitably, financial contributions.

At the same time, direct (formal and informal) strategies at the national, regional and local levels remain important. Here, a combination of efforts are needed to address labour shortages, starting with the following:

- Mobilising and upgrading local ‘reserves’;
- Strengthening vocational education;
- Stimulating and facilitating back-migration;
- Providing adequate housing for incoming labour;
- Mobilising refugees for local labour market participation; and
- Ensuring socially sustainable immigration.

Crucially, in the absence of place attractiveness strategies that hand rural municipalities a central role, any direct strategy (or combination of strategies) is only likely to be of short-term value.

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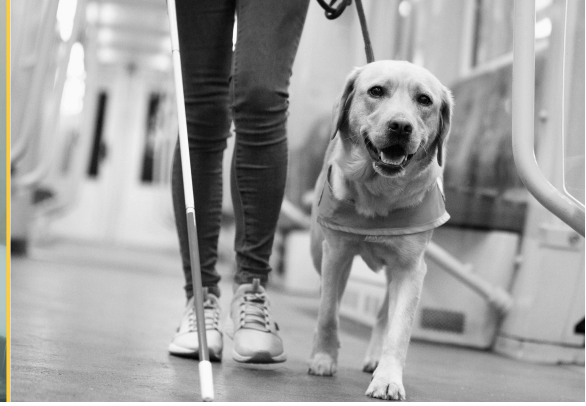
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Relocate was a project aiming to identify ways of attracting workers beyond commuting distance. The project targeted long-term unemployed, newly arrived immigrants and people with disabilities. (Photos: iStock)

8. SWEDEN

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Introduction

There is broad agreement that the issue of skills supply – that is, problems associated with finding employees who match the requirements of available jobs – is an acute and increasing concern across all regions and sectors of the Swedish economy (e.g. Berström et al. 2023; SKR 2022; Tillväxtanalys 2024). Indeed, it has been cited as the single greatest barrier to the growth of firms (Företagarna 2022).

While there is a general macroeconomic tendency in Sweden towards increased vacancies coupled with high unemployment, mirroring the discrepancy between skills demand and skills supply (Forslund 2024), such challenges are often accentuated in rural regions, which generally have thinner labour markets (fewer workers and a less diverse industry mix), ageing populations and low net migration rates. This trend has been exacerbated by demand shocks in municipalities such as Skellefteå, Mariestad, Boden and Gällivare caused by large investments in battery factories and low CO₂-emission steel plants.

In Norr- and Västerbotten counties alone, predictions have been made that around 20,000 direct jobs will be created, with further indirect jobs to follow in response to demand in related activities and welfare (Larsson 2022). Although these are perhaps extreme cases, they nevertheless highlight the labour market's geographically disparate nature, with both demand and supply dependent on functional specialisation and existing labour market structures (e.g. Elekes et al. 2023; Hane-Weijman et al. 2022).

Against the above backdrop, the following sections expand on the situation facing Sweden's rural regions. Following a brief overview of rural variations in labour supply, the chapter presents a number of concrete examples of how relevant actors are attempting to address the challenges faced in this regard, before concluding with a call for better coordination and knowledge gathering.

Skills supply in rural Sweden

Increasing unemployment and vacancies

Discussions around skills supply often focus on the difficulties rural areas face in retaining and/or attracting highly educated ('high-skill') workers. This partly relates to the privileging of high education (university) in Sweden, in contrast to the greater emphasis placed on vocational training in, for example, Denmark and Finland (Forslund 2024). Reducing the skills-supply question to a high-skilled/urban vs low-skill/rural mismatch is, however, overly simplistic, as high-educated couples working in education, health and care are over-represented among those migrating from large urban regions to smaller (rural) regions in Sweden (Sandow & Lundholm 2021).

The reason for this is twofold. On the one hand, jobs in these sectors – as well as public administration – are relatively evenly distributed geographically. On the other hand, such workers seldom receive an urban wage premium, which can help mitigate the difficulties of finding affording housing in larger urban areas. Thus, given the scarcity of job opportunities in other sectors, rural to urban moves are made more attractive (Hansen & Eriksson 2023).

Moreover, while educational attainment in Sweden is relatively high, the country's sizeable demand for workers applies to all skill levels, meaning possession of a university degree is not always relevant to meeting skills demands. This perhaps partly explains why, compared to its Nordic neighbours, Sweden fares less well on the Beveridge curve, displaying a concurrent increase in both unemployment and vacancies (Forslund 2024). In the case of Skellefteå municipality, for example, increased skills demand generated by the Northvolt establishment directly, as well as indirectly in other local sectors, predominantly concerns workers with either a gymnasium or a short post-gymnasial (vocational) education. Consequently, there

is a clear tendency towards over-education, with university graduates increasingly taking on jobs that have no specific skills requirements beyond brief introductory training (see e.g. Blombäck et al. 2024).

Lack of skills or shortage of workers?

As discussed by Tillväxtanalys (2024), it is often difficult to assess whether the skills shortages professed by employers are the result of a shortfall of skills in the workforce (current and prospective employees) or, in fact, a shortage of workers. While the former concerns potential mismatches in education and demand, the latter stems from a shortage of workers in absolute terms, exacerbated by an ageing population. The latter therefore has less to do with skills *per se*, but rather an underlying demographic situation in which smaller numbers of people are entering the workforce compared to those leaving due to retirement. SKR (2022), for example, estimates that the number of people in Sweden aged over 80 will rise by 50% during the coming decade, increasing the demand for both welfare services and new workers to replace retirees.

To successfully manage this generational shift, the number of employees involved in elderly care alone will have to increase by 30%. In effect, around 410,000 additional people will be required in Sweden's municipalities and regions (including private actors in welfare sectors), which corresponds to roughly half of everyone entering the labour market over the next decade having to work in either care (municipalities) or health (regions). This comes at a time when high retirement rates are also expected in other sectors, such as manufacturing (Berström et al. 2023).

Impact of a 'new productive narrative'

Given that Sweden's rural regions generally have older populations than large urban (university) regions, securing the skills required for maintaining welfare, as well as those demanded by the private sector, is particularly problematic. This is especially so in regions that are also experiencing demand shocks due to rapid re-industrialisation. Adjei et al. (2024) predict that, based on previous flows of workers following expansions in manufacturing and mining, about 8% of the current public sector workforce may be lost to these sectors in Norr- and Västerbotten. The authors attribute this not only to wage differences and employment conditions, but changes in attitude and policy discourses regarding desirable futures (see e.g. Valestrand 2018).

Thus, while rapid growth in manufacturing and strong local mobilisation around a 'new productive narrative' does not primarily affect higher-skilled public sector workers (teachers, nurses or medical doctors), it nevertheless shapes the local supply of workers by affecting school choices and labour market entries. Rönnlund

and Tollefsen (2023), in interviewing young adults in a couple of northern municipalities making the transition from school to work, find that an increasing share of them are being swayed by such narratives to opt for careers in manufacturing or related activities. This in turn limits the supply of workers for local welfare jobs.

The urban–rural divide in job market transitions

When it comes to labour market supply and demand in Sweden, there are considerable regional – especially rural – variations. As Figure 1 demonstrates, the population of the country's metropolitan municipalities and their environs has almost doubled since 1950, growing at almost twice the national rate. Over the same period, the population of larger urban regions (typically housing a university) and their environs has grown close to the national average, while that of small urban areas has largely stagnated. Rural regions, by contrast, have undergone a steady decline in population. Given Sweden's persistently low inter-regional migration rates – beyond migration to and from higher education – these variations strongly condition the local supply of labour (Lundholm 2007).

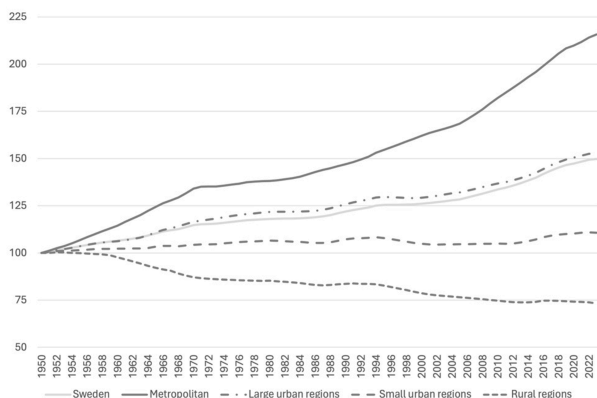


Figure 8.1. Population growth in Sweden 1950–2022 (national average, metropolitan, large urban, small urban and rural municipalities).

Source: Statistics Sweden (population data).

Note: Indexed (100) on 1950. Metropolitan regions consist of the municipalities of Stockholm, Göteborg and Malmö, as well as their commuting areas (A1 and A2, N=46); large urban areas consist of large cities (40,000–200,000 people), as well as their commuting areas (B3, B4 & B5, N=120); small urban areas consists of smaller cities (15,000–40,000 people), as well as their commuting areas (C6 & C7, N=78); rural regions consists of small rural areas with limited commuting (C8 & C9, N=56), as defined by SKR (2023).

The divergence between urban and rural regions is particularly evident during the period of recovery from the early 1990s recession onwards. Andersson et al. (2018), in deconstructing the geographies of job creation and destruction during this time, show that the structural shift from manufacturing to service created roughly 1.5 service jobs for every destroyed manufacturing job across Sweden as whole. However, in the country's rural regions, this figure shrank to just 0.5, compared to 2 in the largest urban regions. Over time – coupled with higher university enrolment (and thus migration to such areas), alongside a tendency towards centralisation among governmental agencies over recent decades (Hansen & Eriksson 2023) – this has led to clear regional divides in terms of skills supply and demand. More specifically, the skill levels of rural labour markets have become less diversified (see also Eriksson & Hansen 2013).

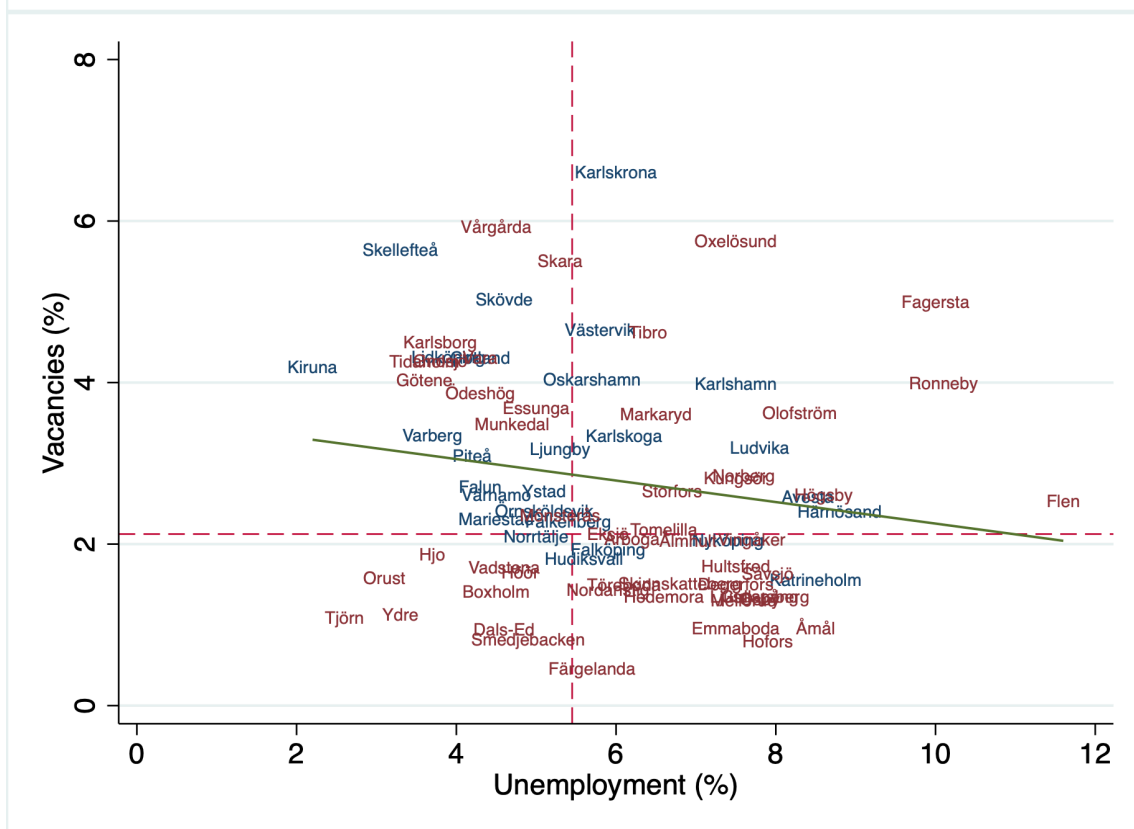
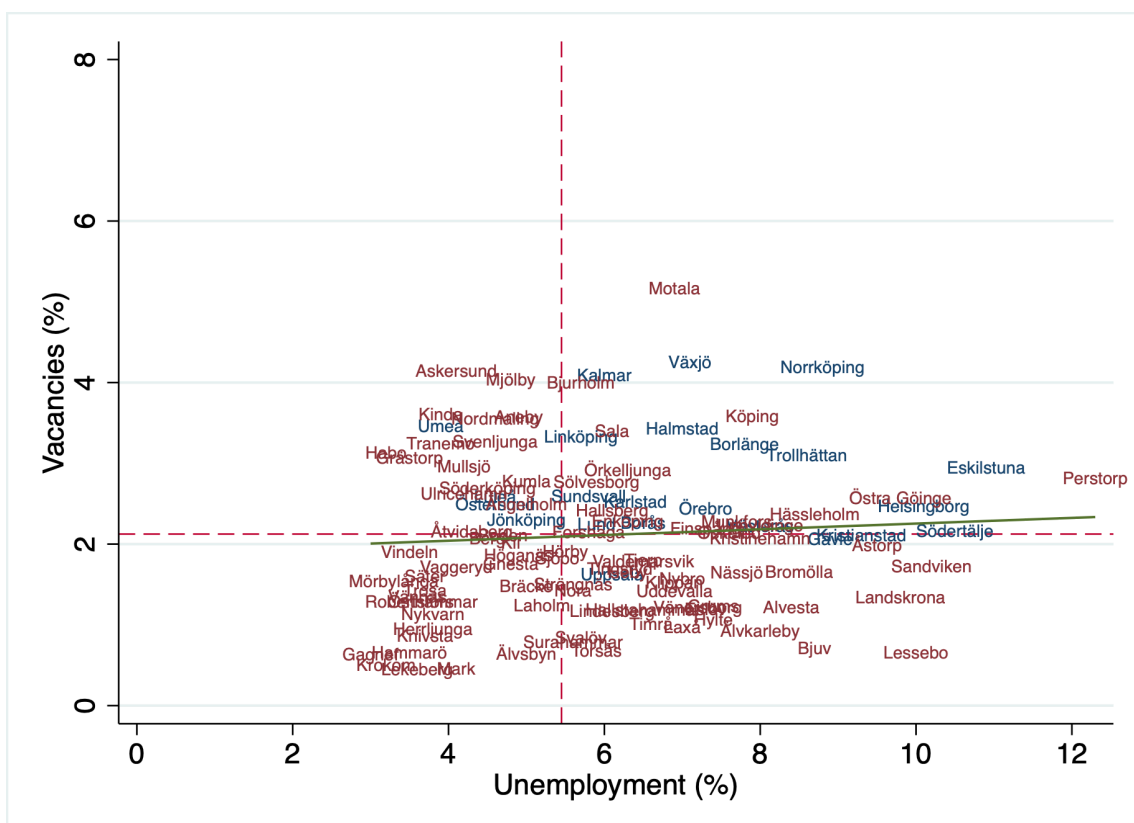
It should be noted that variations in unemployment and age structure vary both between and within different region types. Such variations condition what types of labour market supply challenges are present in a given environment. At a county level, unemployment in 2023 (Swedish mean of 6.4%) was highest in Skåne (8.5%), Södermanland (8.5%) and Gävleborg (8.4%), and lowest in Västerbotten (3.8%), Norrbotten (4.2%), Gotland (4.3%) and Jämtland (4.4%). These figures emphasise the spatial mismatch in labour supply and demand: while there is high demand for workers in northern Sweden, supply is restricted due to low unemployment rates and an ageing population. Bridging the geographical divide in labour supply and demand is made even more difficult by the relatively low propensity of unemployed people to migrate between regions, with social networks (friends, family etc.) often assuming greater importance when it comes to relative labour market marginalisation (Andersson et al. 2020).

Figure 8.2 highlights these differences by – akin to the Beveridge curve – comparing unemployment with vacancies in Swedish municipalities. Separating the different groups of municipalities reveals the heterogeneity within each municipality type, thereby underscoring the diverse regional challenges faced in relation to matching and skills supply.

Comparing the larger regions in the upper panels with the smaller and/or rural regions in the lower panels, it can be seen that the larger cores (especially Malmö) tend to cluster towards the right (high unemployment). In most of the core regions (blue), this is coupled with high vacancies, the exceptions being northern cores such as Umeå, Östersund and Luleå, which have relatively high vacancies and relatively low unemployment. There are also a number of commuting regions (red) with high unemployment and low vacancies, which can be explained by the fact that although such regions host a relatively large number of residents, a sizeable proportion of jobs are located in the respective core. Thus, the fitted line for larger urban regions indicates a situation of low vacancies and low unemployment in their residential vicinities, together with a skills mismatch (high unemployment and vacancies) in urban core regions.

Sources: Platsbanken and Arbetsförmedlingen.





Thus, while mismatches between unemployment and available jobs can be viewed as an internal urban phenomenon partly connected to concentrations of, on the one hand, dwellings and, on the other, jobs, a more diverse pattern is evident when it comes to (small) rural regions. In the latter case, there tends to be either high numbers of vacancies but few available workers (e.g. Skellefteå, Kiruna, Pajala, Gällivare and Vimmerby), or high unemployment with few vacancies (e.g. Söderhamn, Säffle, Hällefors, Åmål and Katrineholm). In other words, Sweden's skills mismatch contains stark regional variations, with vacancies concentrated in some regions (e.g. northern Sweden) and unemployment in others.

In sum, the skills supply challenge facing Sweden encompasses both skills mismatches and an absolute shortage of skills. While the former (proxied by high unemployment amidst generally high skills demand) appears to be more of an urban characteristic, the latter (i.e. lack of people of working age) is generally more prominent in rural areas. This spatial mismatch is the main obstacle that must be overcome in relation to Sweden's overall skills supply and the functioning of its labour market.

Strategies and solutions

There is no single reason underlying why both private and public employers are experiencing difficulties in finding the right competences. This is because the regional variations in skills supply and demand have changed over time. Currently, there is a spatial mismatch connected to the high demand for workers in northern Sweden needed to both manage retirements and fill positions arising from the ongoing re-industrialisation, coupled with high labour supply (unemployment) in other parts of the country. Prior to the past couple of decades, mobility from stagnating to expanding regions was stimulated through subsidies and the expansion of higher education, which in turn privileged regions with higher education institutions (Eriksson & Hane-Weijman 2022). Today, however, much of the skills demand is not directly connected to skills acquired from universities (Blombäck et al. 2024; Parding et al. 2023), and is not primarily the preserve of the largest urban regions.

Several initiatives have been launched by the national government to counteract shortages of labour and skills, alongside several regional initiatives related to the skills supply shortfall in northern Sweden specifically. Some of these are explored below.

National government policy

Student Finance for Transition and Retraining ('*Omställningsstudiestödet*' in Swedish), launched at the end of 2022, aims to provide student finance for employees in need of transition or retraining. It is only granted in cases where there is a perceived shortage in the relevant labour market. The grant, which is available to individuals aged 27–62 years old who have been employed for an extended period and could benefit from re-skilling, covers up to 80% of the employee's previous salary (maximum of SEK 5,275 per week as of 2024) for up to 44 weeks, and can be coupled with a student loan. About 30,000 people applied for support in 2022, of whom about 10% were successful.

The governmental agency responsible reports that applicants mainly wished to enrol in general education – both single courses at university and *komvux* – although a significant share intended to study business and administration and human resources at universities (CSN 2023). About 90% of applicants were planning to pursue either vocational training ('*Yrkeshögskola*' in Swedish) or university. While the latter option is more common among female applicants, there is a relatively equal distribution between men and women when it comes to the former. Moreover, the typical applicant lives in one of Sweden's three metropolitan regions (Stockholm, Göteborg and Malmö), and has a relatively high income (SEK 400,000 or more per year).

Introduction Jobs ('*Etableringsstöd*' in Swedish) is a subsidised employment policy introduced in spring 2024 aimed at improving skills supply by facilitating labour market entry for newly arrived immigrants and the long-term unemployed. The programme combines individually tailored interventions and support with active job seeking. Participants are given assistance to learn Swedish, find employment and support themselves financially.

Should a participant require education to secure employment, studies can be conducted through adult education ('*komvux*' in Swedish), residential colleges for adult education ('*folkhögskola*'), vocational colleges ('*yrkeshögskola*') or universities, with interpreter support provided if needed. Only employers that have collective agreements and are free of business restrictions or debts can be included in the scheme, with the full-time employment of participants time-limited up to a maximum of two years. While such employment does not automatically transition into a permanent position, employers are expected to hold this intention.

Given how recently the two schemes were launched, it is not yet possible to evaluate their effectiveness. Although *Student Finance for Transition and Retraining* aims to promote better skills matching across the labour market as a whole, it contains no specific provisions that would address the country's spatial mismatch by encouraging people to move to regions where skills supply challenges are greatest (Berström et al. 2023).

Tillväxtanalys (2024) summaries a number of other general policies designed to counteract worker and skills shortages, concluding that their effectiveness is largely dependent on the extent to which programmes are tailored to specific demands. In this sense, vocational training which is often closely tied to demand tends to be effective for matching and individual career development (Eliasson & Stenberg 2021). The same applies to general labour market programmes that are closely connected to specific employers or sectors (e.g. Dahlberg et al. 2021), as well as labour market intermediaries and matching support programmes (e.g. Engdahl et al. 2023), although in both cases such programmes mainly serve unemployed people and focus largely on immigrants. Moreover, matching intermediaries does not tend to mitigate spatial mismatches in supply and demand, as it does not explicitly encourage occupational or spatial mobility (Cheung et al. 2019).

For highly educated and especially older workers who require re-skilling, Fredriksson et al. (2023) argue that increasing the supply of standalone courses and distance education could prove an effective way of mitigating adjustment costs related to structural change, as it provides a means for existing workers to broaden their skills within their existing trade. This is particularly relevant for groups that cannot enrol in full-time education due to their life circumstances or geographical distance to higher education institutions (e.g. in rural areas).

Given the general shortage of workers in Sweden, international labour migration is often mentioned as a way of increasing supply, especially in occupations facing shortages. High-skilled workers entering the country in this way are, however, tied to a single employer, which limits their mobility within Sweden. In addition, work permits have a two-year cap, which limits the possibility of achieving long-term solutions. Tillväxtanalys (2018) therefore suggest that the two-year limit be abandoned, and that employers with weak international networks receive some form of state support in order to help them source foreign workers. The same report also argues that foreign students and researchers should be granted shorter deadlines in which to find employment after graduation in Sweden compared to other European Union (EU) countries, which could adversely affect Sweden's reputation as a viable higher educational destination.

The research and development (R&D) tax relief introduced in 2014 – which offers employers a payroll tax reduction for employees within R&D – has had a positive effect on R&D employment, especially in small- and medium-sized firms (Tillväxtanalys 2022). Given this, similar directed tax incentives could be implemented to address shortages of high-skilled workers more generally.

Finally, not all labour migrants are high skilled. For example, the most common occupation fulfilled by international labour migrants is berry-picking in rural areas, which has prompted frequent reports of exploitation connected to salaries and working conditions (e.g. Eriksson et al. 2019). Higher income criteria were introduced from 1 November 2023 (80% of median income) in order to strengthen the position of migrant workers and instead mobilise unemployed people in Sweden

to take up occupations falling below the income threshold. While it is too early to properly evaluate the effects of this new regulation, it is estimated that about 15,000 migrants have incomes below the threshold. This has the potential to make rural labour shortages even more acute, especially as labour migrants are typically recruited into occupations where there are large shortages of workers (Tillväxtanalys 2024). The income threshold is also higher than what has been agreed in some collective agreements, which may influence negotiations between unions and employers.

In sum, a plethora of different policies and actions are available to counteract labour market shortages and incentivise mobility to high-demand jobs and regions. Given Sweden's relatively low inter-regional mobility, the effectiveness of a policy is highly contingent on the degree to which it meets local skills demand. Thus, general supply-side policies (e.g. education and training) often fail to account for spatial mismatches. This echoes the longstanding argument made in the regional sciences that general supply-side incentives focussing on increasing levels of training (including compelling people to train) often fall short of their objectives if not tailored to local demands (see e.g. Shuttleworth et al. 2005 and Sunley et al. 2001 for the UK; and Jensen & Chitose 1997 and Solow 2009 for the US). When it comes to Sweden, both Nyström (2021) and Forsberg (2024) argue that the connection between national initiatives and regional specificities tends to be weak.

Regional initiatives in northern Sweden

Relocate – a collaboration between Region Västerbotten, the employment agency, Skellefteå municipality and Northvolt, and co-financed by the EU and the European Social Fund – was a 2-year method development project initiated in 2021, designed to identify ways of attracting workers living beyond commuting distance to Skellefteå in Västerbotten. The project, which targeted the long-term unemployed, newly arrived immigrants and people with disabilities, looked to find general ways of dealing with spatial mismatches and encourage migration within Sweden. Given the project's aim of inducing mobility, participation was voluntarily rather than mandated by the employment agency. Participants were therefore contacted by drawing on the contacts and networks of local actors (e.g. the Labour Market Administrations in Stockholm and Malmö, and the International Women's Association in Malmö).

The project was depicted as a high-cost failure in the media (Dagens Nyheter 2023): despite a total budget of SEK 70 million, it only succeeding in attract 38 workers to Skellefteå and no unemployed women at all from Malmö. Nevertheless, several institutional bottlenecks were identified (Relocate 2023).

First, there is no national system in place to provide internal migration incentives, despite the acute need for coordination between different policy areas. In particular, a coordination body present at both the place of origin and the intended destination is a prerequisite for facilitating migration. When it came to Relocate, the national employment agency's changed mission, with less responsibility of matching, coupled with the presence of several standalone (private) employment agencies, made coordination difficult. Ultimately, it was concluded that although private actors could potentially take on a coordinating role, they currently have no incentive to encourage mobility to another municipality, only to direct the unemployed towards either education or work in the relevant vicinity.

Second, the current adult training regulations (especially concerning adult education like *komvux*, but also vocational training) make migration difficult, with approval from the relevant national agency and municipality necessary in order to migrate for the purposes of undertaking training.

Third, the current subsidies do not cover the actual monetary costs associated with long-distance migration, further reducing the propensity to migrate, especially for those in more peripheral labour market positions.

Finally, and relatedly, migration is made less attractive by the lack of affordable housing in expanding areas with housing shortages.

The project concludes that these various obstacles and institutional barriers make it almost impossible to address the spatial mismatch of vacancies and unemployment. As such, policy adjustments are required to make inter-regional migration more appealing.

Akademi Norr (2024) has coordinated a *local supply/demand mapping* initiative funded by the European Social Fund and the initiative members (municipalities and Västerbotten and Norrbotten counties) designed to provide local prognoses on future labour demand in northern Sweden. This is in response to the insufficient detail on rural areas provided by the employment agency's occupational prognoses as, typically, too few rural workers are engaged in the occupation under scrutiny. For example, only a single occupation is given a prognosis in the rural municipalities of Jokkmokk and Arjeplog. Such regions must therefore either conduct their own mapping or rely on the national forecast.

Given the diverse occupational structures present across Sweden's regions (Hane-Weijman et al. 2022), national forecasts seldom match current or future labour demands in small rural areas. Thus, rather than each municipality funding its own forecast, the Akademi Norr-coordinated project will help identify common needs

among adjacent municipalities. This in turn means education and training can be tailored and jointly coordinated according to the region's broader demands, allowing project costs related to vocational training and high-school education to be shared.

Both Skellefteå municipality (Welcome House) and several municipalities in Norrbotten (e.g. Boden and Piteå) have established *relocation service* hubs aimed at assisting prospective and newly arrived migrants to find jobs and housing, as well as help accompanying spouses settle in. Given that moving to a new place is often fraught with uncertainty, especially if the incomer is coming from another country, such hubs have been tasked with limiting perceived bureaucratic obstacles and facilitating contact with the authorities. As discussed by Nyström (2021), this is one of many local services that could encourage inward migration, especially in the case of dual career households.

Overall, such initiatives point to the need for local flexibility in addressing challenges, as successful recruitment hinges on the challenging task of being willing to experiment while also being effective.

Conclusions

Neither the causes of, nor solutions to, rural skills shortages can be easily summarised. Shortages may be the result of an absolute shortage of working age people, shortfalls in the types of skills sought by employers, or preconceptions of who possesses the 'right' type of skills. The latter encompasses discriminatory structures related to, for example, gender, ethnicity and disability, which although not explicitly discussed in this chapter can influence perceptions of skills supply (e.g. Berlina & Cavicchia 2024; Grip & Jansson 2022) and shape narratives around skills mismatches and corresponding policy interventions (Tillväxtanalys 2024).

In discussing the regional dimensions of skills supply, this chapter has sought to demonstrate that the local reasons behind skills shortages vary. The key challenge facing many of Sweden's rural regions is an absolute shortage of workers, which has been exacerbated in some regions by demand shocks related to rapid re-industrialisation. At the same time, there are municipalities (rural and particularly urban) with varying vacancy rates that are also experiencing high unemployment. This indicates local pockets of mismatch, with vacancies not matching the skills of the unemployed both in broader functional regions around urban cores and in relatively solitary rural regions. Moreover, it points to a spatial mismatch between vacancies on the one hand and the unemployed on the other.

Local variations, and spatial mismatches arising from this, present a key policy challenge. As exemplified by the case of Skellefteå, several obstacles stand in the way of realising migration from southern Sweden. In particular, the experiences of the Relocate project demonstrate that some form of coordinating body is needed.

The previous section's survey of recent policy initiatives reveals that general incentives aimed at overcoming barriers to the labour market seldom consider local specificities, limiting their ability to solve the mismatch puzzle. Given that consideration of local demand helps increase the efficiency of an intervention, more regional wisdom is needed. In light of this, the initiative taken in Norr- and Västerbotten to coordinate a thorough skills survey and then tailor training and education accordingly appears highly promising, as otherwise many rural municipalities would need to conduct surveys independently or rely on national forecasts. While national forecasts are valuable, they presume almost frictionless mobility and are unlikely to mirror the demands of those places most in need of support.

Although skills supply is seen as a key challenge by both business and the public sector, there remains a lack of clarity when it comes to responsibility and mandate. As Forslund (2024) shows, this is particularly evident at the state and regional levels. Consequently, while everyone considers skills supply to be a problem, no one is actually responsible for the issue, be it employers, municipalities and regions, various intermediary actors or the state. The Relocate project's failure to attract people from Stockholm and Malmö to Skellefteå is illustrative of how the changed mandate of the employment agency since 2021, together with the fragmented service provided by private agencies, has helped create this void in responsibility. To address this, there must be a clearly designated actor tasked with coordinating both the areas receiving and sending workers. In doing so, the actor should work to mitigate bureaucratic obstacles around migration, education and housing.

The policy of public administration centralisation pursued in Sweden over recent decades has had a negative impact on the ability of rural regions to deal with skills supply. For example, the employment agency has stepped back from many locales, either completely disappearing from rural municipalities or providing reduced resources. This has meant municipalities taking on greater responsibility for meeting the needs of those furthest from the labour market via livelihood support, as well as providing the tools needed to facilitate skills matching and knowledge building through education and skills development. At the same time, the budgets available to municipalities – especially many rural municipalities – are limited, with a relatively small group of officials responsible for making strategic and impactful decisions. Given the varying resources and capacities of municipalities, it is questionable whether they should be burdened with this responsibility, as success in dealing with skills supply issues may come down to the capacity for innovation shown by individual municipality officials, together with their ability to mobilise relevant actors.

A stronger presence by authorities contributes to better community services and in turn relevant job opportunities. This means the ways in which the state distributes its functions has a direct impact on skills supply, potentially allowing it to serve as a positive agent of change (Hansen & Eriksson 2023). Studies from both Denmark (Hansen & Aner 2017) and Sweden (Sandow & Lundholm 2021), for example, show that the public sector contributes to a more even geographic distribution of human capital and increases the likelihood of highly educated workers immigrating. Increasing centralisation, however, risks further eroding local services to firms and citizens, thereby – among other things – hampering private sector growth.

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Occupations in health and social care in Åland are perceived to be difficult to recruit. In the municipalities there is also a demand for qualified teachers in childcare, student assistants and specialised teachers. (Photos: Helena Wahlman and Evelina Ytterbom / Imagebank.sweden.se)

9. ÅLAND

Linnéa Johansson

The Government of Åland

Tomas Lundberg

Åland Authority for Labour Market and Student Services (AMS)

Åland's labour market

Since the 1970s, the development of Åland's labour market has been shaped by high population growth, primarily driven by immigration (Figure 9.1). The period has also been marked by the growth of a very large, expansive shipping sector that combines freight and cruise operations. This has opened up a wide range of workplaces attractive to both men and women (Table 9.1). Overall, while recent decades have seen significant immigration and emigration, Åland's net immigration figures have been positive. Meanwhile, aside from exceptional situations when Sweden and Finland – Åland's main markets – have been in recession at the same time, unemployment has generally been low (Figure 9.2). Åland's labour market features high levels of participation among women, while the increase in immigration from European Union (EU) countries and elsewhere since 1995 means incomers today constitute a significant proportion of the workforce.

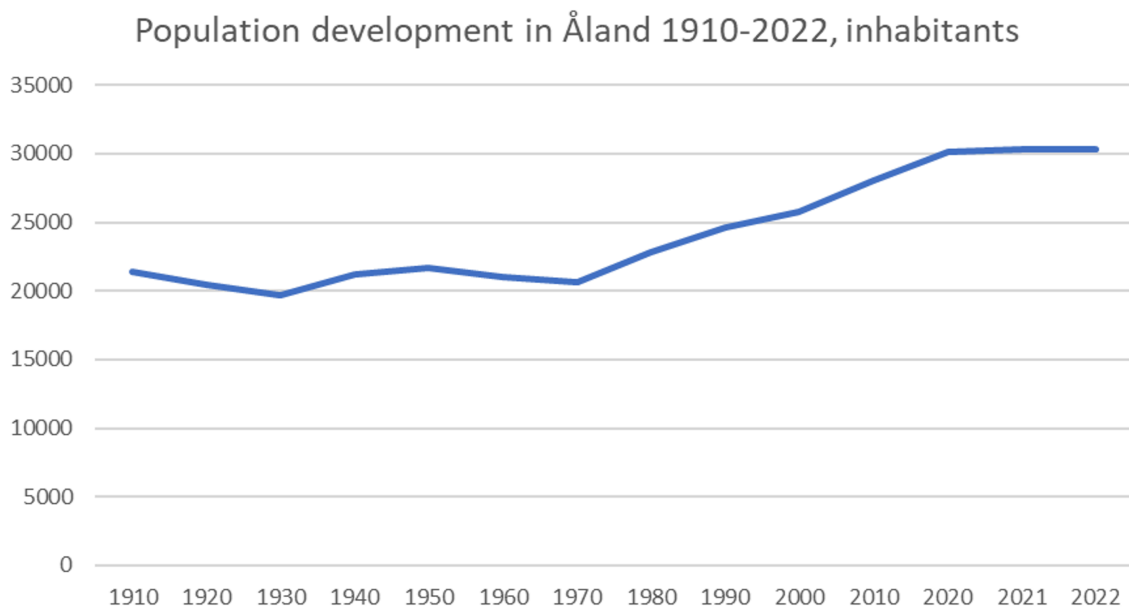


Figure 9.1. Population development in Åland, 1910–2022.

Source: Åland Statistics and Research (2023).



Figure 9.2. Unemployment rate, 1988–2022 (%).

Source: Åland Authority for Labour Market and Student Services (2023).

Table 9.1. Population in Åland by main activity as of 31 December 2022.

	Total % (no.) of inhabitants	Women (of total)	Men (of total)
Population	100 (30,359)	50.4 (15,295)	49.6 (15,064)
Labour force	49.7 (15,087)	49.9 (7,528)	50.1 (7,559)
Employed	- 95.7 (14,439)	- 50.3 (7,265)	- 49.7 (7,174)
Unemployed	- 4.3 (648)	- 40.6 (263)	- 59.4 (385)
Not in labour force	50.3 (15,272)	50.9 (7,767)	49.1 (7,505)
0–14 years	- 32.2 (4,921)	- 49.6 (2,443)	- 50.4 (2,478)
Students	- 10.6 (1,615)	- 45.3 (731)	- 54.7 (884)
Pensioners	- 48.4 (7,395)	- 52.3 (3,867)	- 47.7 (3,528)
Others outside labour force	- 8.8 (1,341)	- 54.1 (726)	- 45.9 (615)

Source: Åland Statistics and Research (2023).

Trends and key sectors

Relative to its size, Åland's economy encompasses a broad range of business life, with companies and employment present in almost every industry. Åland's isolated location means the region also enjoys a wide range of public services. In this respect, Åland has bucked the trend towards privatising public services seen in neighbouring regions, which goes some way to explaining why public sector employment remains high (Figure 3). Since the 1990s, employment growth has mainly taken place in health care, social care and education.

For generations, Åland's business life has been built around an extensive international shipping industry, coupled with directly- or indirectly-related service companies in logistics, trade, construction, financial transactions, business services, IT, the creative industries and manufacturing. Thus, despite being badly affected by the Covid-19 pandemic, the maritime sector remains Åland's core competency, while traditional manufacturing industry is relatively small.

Even so, the competitive situation facing shipping has intensified over the past 20 years, leading to a fall in the proportion of Ålanders employed in the industry. More generally, since the turn of the millennium, there has been a shift away from employment in shipping, agriculture and manufacturing towards public services, finance and IT.

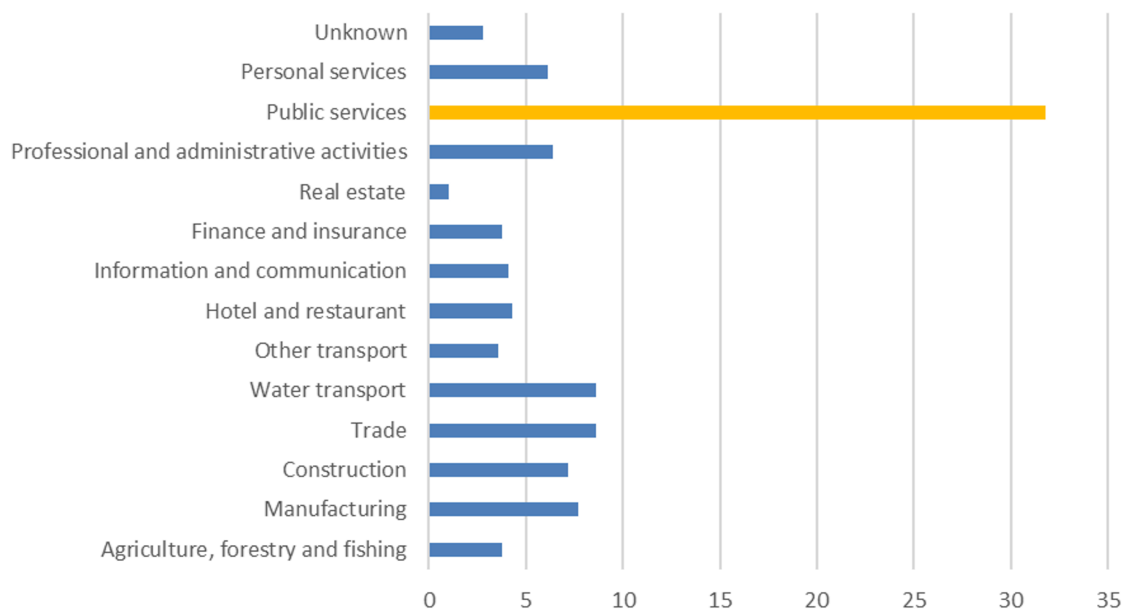


Figure 9.3. Workplaces by industry, 2021 (% of total).

Source: Åland Statistics and Research (2023).

Regional and rural variations of labour shortage

A labour market survey produced by Åland Statistics and Research (2023) reveals a wide range of occupations that companies and public sector organisations regard as challenging to recruit into. Despite this diversity, one common denominator is the need for specialists with relevant experience and higher education degrees.

In the public sector, there is particular demand for legal specialists, school-system teachers and other educational specialists, such as counsellors, with analysts/investigators, socio-technical engineers and business developers also mentioned as difficult to recruit into. Occupations in health and social care, especially community carers, are perceived as challenging to fill in both the public and private sectors. In addition, there is demand in Åland's municipalities for qualified childcare staff, student assistants and specialised teachers.

In the private sector, the hard-to-recruit occupations highlighted in the survey are often sector-specific – that is, experts in a particular field. Occupations mentioned across several sectors include finance and IT specialists, and cleaners, while certain occupations within the electricity sector are also perceived to be difficult to recruit into (Åland Statistics and Research 2023).

Difficult-to-find occupational groups in the private sector

One of labour market survey's questions is: 'If your company is looking for a specific vocational specialisation, which one do you think will be most difficult to find in the coming year?' (Åland Statistics and Research 2023). The answers to this question provide an indication of where labour supply gaps may be found, and more specifically which occupational groups may be subject to labour shortages going forward.

Here, it should be borne in mind that each survey respondent has a different starting point when it comes to answering the above question. Moreover, it is not possible to assess the *degree* of difficulty faced in each case – respondents only indicate *which* occupational group they think will be most difficult to recruit into. Nevertheless, in the 2023 survey, the following occupational groups and specialists are highlighted as difficult to recruit into:

- *Primary industries:* aquaculture professionals;
- *Food industry:* master distillers;
- *Water and electricity:* line-fitters and other electrical;
- *Construction:* plumbers and electrical and refrigeration technicians especially, as well as roofers and construction workers;
- *Trade companies:* sales and management personnel especially, as well as florists, drivers, mechanics, opticians, textile specialists and fish fillers;
- *Shipping:* cooks, engineers, ship electricians and generally experienced maritime personnel;
- *Transport and communication:* drivers;
- *Hotel and restaurant industry:* cooks especially, as well as waiters, cleaners and hotel receptionists;
- *Finance and insurance:* financial experts and senior specialists;
- *IT sector:* system and web developers, experienced programmers, IT technicians and network technicians;
- *Personal services:* IT specialists, carers and other health professionals; and
- *Other:* chemical engineering/process development specialists; project managers; engineers; forestry workers; workshop mechanics; accountants and financial advisors; authorised estate agents; mechanical/electrical engineers; cleaners; and lifeguards.

Difficult-to-find occupational groups in the public sector

The equivalent labour market survey question for the public sector is worded as follows: 'If you plan to hire in the next 12-month period, which occupational specialisation do you think will be the most difficult to find?' (Åland Statistics and Research 2023). Again, each respondent (representatives of a particular municipality, government authority, etc.) has a different starting point for answering the question, nor is it not possible to assess the degree of difficulty faced.

Having acknowledged this, difficult-to-fill public sector occupational groups highlighted in the 2023 survey include: specialists (especially legal specialists); analysts/investigators; socio-technical engineers; business developers; and transport procurement officers. In this context, many respondents point to the importance of a labour force with higher degrees.

Heads of office or department, network technicians, inspectors, heavy vehicles drivers and hygienists as also cited as hard-to-fill positions, with teachers and study counsellors in demand by schools. At the municipality level, childcare staff and kindergarten teachers are required, while nursing and other health and social care positions are expected to be among the most difficult to recruit into.

Other in-demand occupations include building inspectors, kitchen staff, specialised teachers and municipal technicians. Several primary schools envisage teaching assistants and special needs teachers will be the most difficult to recruit. In addition, specialised teacher and education manager positions pose problems.

Moreover, it is regarded as difficult to find staff with sufficient knowledge of both Swedish and Finnish.

Sectoral labour shortage variations

Table 9.2. Average number of vacancies filled in one month by appointment time (number of days) and profession (annual average).

	NUMBER OF DAYS										
	Total	0-3	4-7	8-14	15-21	22-28	29-42	43-60	61-90	91-180	Over 180
2021	237	8	9	32	95	32	34	16	7	3	1
2022	325	10	17	41	102	39	51	26	16	14	10
2023	298	5	10	32	107	39	41	33	12	13	7
By profession											
Managers	10	0	-	1	4	3	1	0	0	0	-
Professionals	57	1	4	5	29	10	7	2	0	0	0
Technicians and associate professionals	44	1	0	4	19	6	5	3	1	4	1
Clerical support workers	23	0	1	4	8	4	3	1	2	0	0
Service and sales workers	126	2	2	13	39	10	18	23	9	7	7
Skilled agricultural, forestry and fishery workers	4	0	1	0	0	0	2	0	-	-	-
Craft and related trades workers	6	0	0	1	1	1	1	1	-	0	0
Plant and machine operators, and assemblers	8	1	0	2	1	1	1	2	-	-	1
Elementary occupations	21	0	1	3	5	4	3	1	1	0	3
Unknown	0	-	-	-	-	-	-	-	-	-	-

Source: Åland Statistics and Research (2023: 13).

Among other things, Table 2 shows that just over 11% of all vacancies in 2023 for professions categorised as 'Technicians and associate professionals', as well as just over 7% of vacancies for 'Service and sales workers', took three months or more to fill. This points to the existence of labour shortages in these occupations.

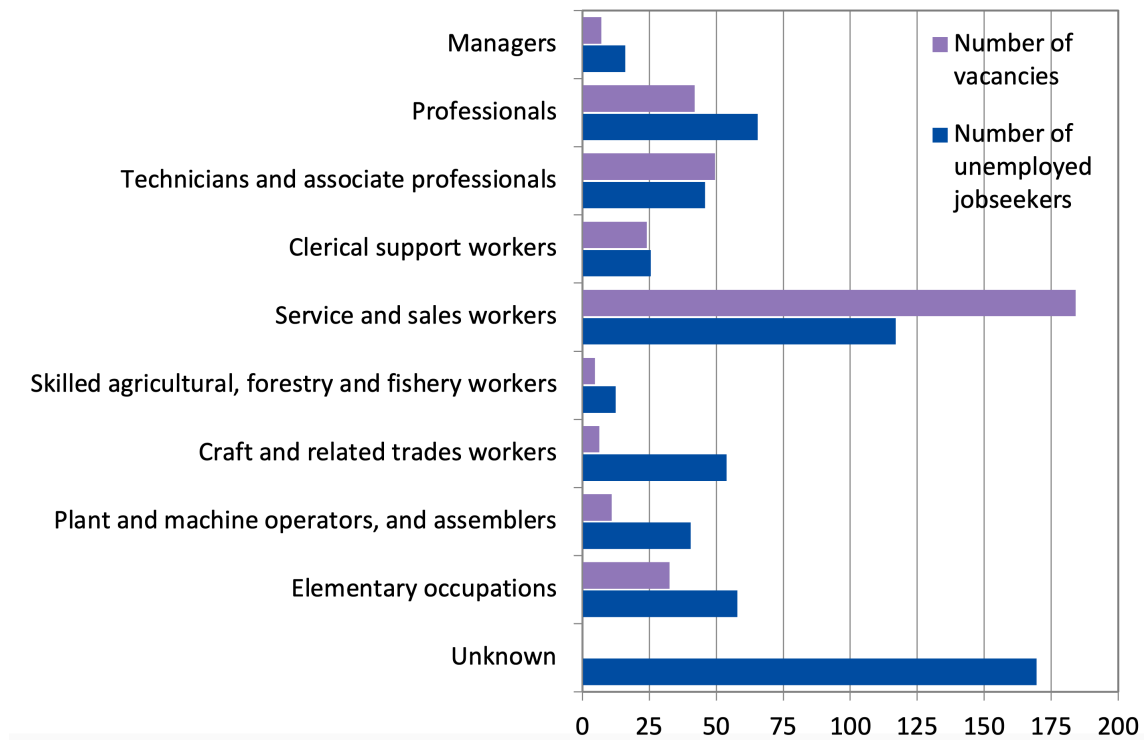


Figure 9.4. Average (monthly) number of unemployed jobseekers and vacancies by occupation, 2023.

Source: Åland Statistics and Research, Labour market (2023:13).

As can be seen in Figure 9.4, the number of job vacancies in 2023 for 'Technicians and associated professionals' exceeded the number of people seeking employment in this area, although only to a relatively small degree. A much greater shortfall, however, affected 'Service and sales workers'. For all other occupations, there were fewer vacancies than people seeking employment. Together, Table 2 and Figure 4 reveal that labour shortages exist in the service sector, as well as industries that require technicians and associate professionals.

Table 9.3. Number of partial decisions for residential permits in Åland, per year, in sectors with the highest numbers of foreign workers (2019–2023).

	2019	2020	2021	2022	2023	Occupations
Restaurant and catering staff	8	7	15	24	42	chefs
Construction workers (except electricians)	4		5	6	4	painters and other construction workers
Cleaners, maids and other cleaning workers	14	9	21	17	36	
Catering staff		4	4	11	11	waiters and bartenders
Process operators, food industry	3	3	12	12	5	fish farming
Assistants, horticulture	24	18	28	10	7	assistants, horticulture and horticultural workers
Assistants, agriculture	26	22	14	8	1	
Kitchen and restaurant assistants	6	4	9	1		

Source: Data from the case management system for immigration matters (UMA), authors' development.

Data from residential permits and occupations shows that in 2019 (the beginning of the five-year period tracked in Table 3) labour shortages were also present in 'Horticulture' and 'Agriculture'. More recently (2023), the 'Restaurant sector' and 'Cleaning' have also faced labour shortages. Taken in combination with the data presented in Figure 4 and Table 2 above, Table 3 points to which sectors are experiencing labour shortages in Åland.

Strategies and solutions

'One door in' policy

The Government of Åland is currently – in conjunction with the business community, municipalities and local authorities – developing a migration, integration and skills supply strategy that aims to attract the necessary labour market skills through creating 'one door in' (Government of Åland 2023).

Addressing matching issues

Åland's government is, via the Åland Authority for Labour Market and Student Services (AMS), restructuring and supporting the labour market in order to address matching problems. Towards this end, the Government of Åland has announced its intention to review the structures enabling adults, including those with a foreign background, to participate in education. The aim is to create an education system that meets everyone's needs, with work-related vocational training a growing area of development.

Matching between jobseekers and vacancies in Åland remains a major challenge for labour market policy and AMS. Here, the starting point is that labour market services should primarily promote employment via the open labour market, or through skills enhancement that increases the possibility of an individual finding work. For many unemployed jobseekers, extensive, long-term efforts are required to ensure they are employable on the open labour market. This applies particularly to those without vocational training and more recent arrivals to Åland with poor Swedish language skills.

While full-time students are not entitled to unemployment benefits, as of 2016 AMS was granted the ability to provide unemployment benefits supporting a jobseeker's voluntary studies in areas relevant to promoting vocational skills and strengthening their ability to secure a permanent job. Through this scheme, unemployed people have undergone training for occupations such as cooks, carers and accountants. Relatedly, educational testing offers the possibility of helping clarify an individual's suitability for a particular sector.

Another relatively recent initiative – beginning in 2019 – is that any jobseeker aged 25 years or more can pursue studies aimed at enhancing their professional skills and, up to a maximum period of six months, still be entitled to unemployment benefits. In 2023, the range of studies that can be pursued while retaining unemployment benefits was broadened. It is hoped that these recent employment promotion measures, combined with planned employment promotion training, will lead to improved matching in 2024 and beyond.

Even so, AMS needs to maintain a clear focus on improving labour market matching, including following up and evaluating how its staff make use of different tools and methods. In this respect, the development of evidence-based methods, new data tools and IT skills requires prioritisation.

The new legislation on primary schools gives adults who do not have primary school certificates the right to a primary school education. Doing so would give many jobseekers the opportunity to move on to upper secondary studies given that Åland has now begun to provide a comprehensive school education system for adults.

Migration of demanded labour

For several decades now, the Government of Åland has actively pursued a policy of increasing immigration to the region in order to meet the region's growing labour market demand. In pursuit of this aim, an initial target of increasing the region's population to 30,000 inhabitants by 2010 was set. More recently, Åland's development and sustainability agenda envisages 35,000 inhabitants by 2030.

The recruitment of skilled labour – particularly specialists in industries across various sectors – poses a particular problem. In response, AMS is devoting resources to recruitment efforts both within and outside Åland, including through activities under the 'Åland Living' framework and active participation in the European network for employment services and recruitment, EURES. Higher education internship activities also form a key part of the government's strategy. More generally, AMS actively participates in the Government of Åland's work to realise goal five of its strategic development and sustainability agenda: 'Attractiveness for residents, visitors and businesses'.

Recruitment of foreign workers

One 'public-private strategy' for combatting labour shortages in Åland is to allow, and in some instances actively recruit, foreign workers. The Finnish Immigration Service may grant a residence permit to a foreign national if it deems there is a reasonable likelihood of the individual in question obtaining, within an appropriate timeframe, work in areas of labour market shortage.

Worker residence permit applications are centralised in five work permit units in Helsinki, Tampere, Oulu, Lappeenranta and Åland, which are authorised to issue partial decisions on such applications to the Finnish Immigration Service. Within Åland, AMS is responsible for companies seeking labour from outside the EU/EEA area, with the Aliens Act (FFS 301/2004) and the Finnish government's national guidelines applicable in these cases.

When it comes to employment, AMS must investigate the possibilities of obtaining labour qualified for a particular job. Towards this end, an employer must report a vacancy to AMS and keep it announced locally for at least two weeks. AMS is also

responsible for assessing whether the employer has set realistic job specifications, as well as whether a potential employee possesses the training and licences required (e.g. a hygiene passport). In addition, AMS must ensure a foreign incomer's subsistence is covered by income from gainful employment for the duration of their residence permit.

The Government of Åland issues can issue guidelines specifying which sectors face regional labour shortages, thereby allowing foreign workers to obtain residence permits for relevant positions. In such circumstances, the requirement for employers to notify AMS of the vacancy and advertise it for at least two weeks does not apply, making it easier for employers to source workers.

Internships, Competence Link and Work & Live on Åland

In the mid-1990s, in response to the realisation that many Ålanders studying outside the region were deciding to remain in their place of study once they had completed their courses, the predecessor to AMS launched the 'Competence Link' initiative. Through the initiative, individuals could remain in contact with the Åland labour market during their studies, thereby – it was hoped – enticing them back to the region once they were ready to seek a job.

As part of this, a scheme was introduced making it possible for Åland university students to gain paid summer internships at Åland workplaces. Later, in the early 2000s, it became apparent that a significant number of students who did not originate from Åland were also interested in exploring the region's business environment and labour market. Thus, Competence Link was expanded, becoming the 'Work & Live on Åland' initiative.

Åland Living

In 2016, with Work & Live on Åland set to participate in the Emigration Expo in the Netherlands for the first time, the initiative underwent another transformation. Now called 'Åland Living', the initiative's expanded, renamed website provided English language versions of its relevant information.^[19] To date, Åland Living has participated in the Emigration Expo every year over the period 2016–2019, and also in 2022. Moreover, Åland Living cooperates with employers in recruitment campaigns, participates in recruitment fairs and carries out targeted initiatives at universities outside the region. Crucially, since 2016, internships have also been opened to all university students, not just those receiving Åland student support.

From 2024 onwards, Åland Living is pivoting towards a new strategic orientation that involves strengthening Åland's attractiveness, with the ultimate aim of maintaining a positive pattern of immigration and helping meet the population target set for 2030. Immigration guidance and information services form a central

19. The previous website address of www.komhem.nu was changed to www.alandliving.ax.

part of this strategy, including the targeting, via marketing materials, of particular interest groups linked to sectors categorised as suffering regional labour shortages.

Given the necessity of extending Åland Living's reach beyond the region's borders, the initiative is committed to pursuing strategic, ongoing communication work. At the same time, Åland Living is working – through extensive research work and data collection – to deepen understanding of the factors driving emigration from Åland.

In sum, Åland Living's current mission is to:

- Help meet the needs of Åland's labour market and business establishments (including through collaboration with business sector actors);
- Contribute to Åland's total integration work (including through cooperation with actors working for integration);
- Play a role in Åland's place-based development and onboarding work (including through collaboration with actors operating in these areas); and
- Work to increase Åland's skills supply (including through cooperation and dialogue with the education system).

Concluding remarks

Although Åland is a relatively small society, it maintains a broad economic structure, the core competencies of which are to be found in maritime off- and on-shore activities. The region's economic diversity is reflected by matching problems in a number of labour market sectors. In this respect, it is important to focus on continued promotion of Åland's social and business environment, and so build on the steady population increases seen over the past 55 years.

At the same time, Åland's reliance on immigration calls for further research into the factors driving migration into and out of the region. Finally, cooperation with large employers when it comes to branding and marketing, as well as the development of place attractiveness, must be placed high on the agenda going forwards.

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It is important to provide rural onsite training and education as it is challenging to attract persons that have moved for education to move back to an area.

(Photos: Magnus Liam Karlsson/Imagebank.sweden.se and iStock)

10. NORDIC ANALYSIS

Elin Slätmo

Nordregio

This chapter, drawing on textual analysis of the preceding chapters, identifies a number of common themes apparent in the Nordic region's rural labour markets. The inductive method employed means these themes are not based on any pre-defined theory, but arise from commonalities observed across the Nordic countries/territories. While such an approach is undoubtedly fruitful in terms of drawing out shared characteristics, it runs the risk of overlooking those strategies that are unique to each case. As such, the reader is encouraged to approach this chapter having also read the Nordic statistical overview (chapter 2) and national outlooks (chapters 3–9).

The analysis set out below was discussed at a workshop attended by the chapter authors, as well as national and regional development representatives of the Nordic thematic group for Green and Inclusive Rural Development. Through this process, the conclusions drawn were validated by relevant Nordic policy and research experts.

Nordic regions and sectors with labour shortages

Labour markets in Nordic rural areas are in general characterised by wage work in one single industry, while also having a relatively large proportion of non-wage workers (i.e. individual entrepreneurs/self-employed workers, family businesses, and business with only two or three employees in sectors such as agriculture, forestry, fishery, tourism, natural products, and construction and maintenance work).

The difficulties of measuring 'rural labour shortage' make it hard to provide clear results on which types of labour (i.e. people with particular skills and competence) are lacking, as well as where and when these shortfalls are to be found. Nevertheless, the report does give some indications in this direction.

As the national outlook chapters demonstrate, the reasons behind rural labour shortages vary both between and within countries/territories. In some Nordic regions, labour shortages are primarily down to business or seasonal cycles, while other regions are affected by structural issues (e.g. demography, low interregional migration, larger changes in the economy, skills mismatch).

One of the indicators used to identify labour shortages is employment rates. Here, it is notable that, at the Nordic level, both the highest and lowest employment rates are to be found in rural municipalities. On average for all Nordic regions the employment rate is slightly higher in rural areas (81.3%) than in urban areas (80.2%). Having in mind that the differences between the generic urban and rural areas are small for the employment rates, generally speaking, the chapters here presented indicate that areas outside the Nordic countries' capital regions are more challenged by labour shortages than areas categorised as urban.

Across the Nordic region as a whole, rural municipalities are projected to undergo a 5.8% decline in labour supply, that is the part of the population in working age. By contrast, Nordic urban municipalities will see 7.3% growth in their working age population, and in the municipalities in the Nordics that are categorised as intermediate the labour supply will remain stable.

Notably, rural labour shortages are not a big issue for the Icelandic economy, as labour mobility between regions and immigration of labour from overseas appears to have matched labour demand effectively. In Norway, while there is surprisingly low variation between regions, labour shortages are currently most in evidence in the rural north (Troms, Finnmark and Nordland). Across the Nordic region, interregional labour mobility is reported to be high in some countries (Iceland and Finland), and low in others (Sweden).

Table 10.1 below summarises some of the key results regarding regions and sectors at risk of labour shortages in the Nordic region. Based on this, the sectors most affected by labour shortages – both currently and potentially in the future – are:

- Construction
- Manufacturing
- Green energy sector
- Agriculture, horticulture, fishing, berry-picking
- Tourism and restaurants, service and sales workers, cleaners
- Health and medical sector (especially elderly care)
- Social services
- Public school system.

Table 10.1. Nordic regions and sectors with labour shortages.

Denmark	The construction and health sectors are expected to experience the most significant labour shortages, with all parts of the country affected. In terms of rural areas, the biggest challenges are anticipated in farming, tourism and restaurants, and manufacturing. Labour shortages are largest in rural municipalities, with Western Jutland hardest hit. By contrast, municipalities with large cities and/or near Copenhagen have a small surplus of labour.
Finland	In 2023, Kainuu and Ostrobothnia regions experienced the greatest difficulty in sourcing workers. More generally, the care sector faced personnel shortages across the country. In sparsely populated rural areas, there is a shortage of seasonal workers in the hospitality sector and berry-picking; in core rural areas, there are worker shortages in process and mechanical industry; while in rural areas close to urban areas, there is a lack of skilled labour for construction and industrial work. Labour shortages in urban areas are most apparent in education and early childhood education, protection and guarding work, and the software sector.
Greenland	Enhanced labour force competence and skills are perceived to be needed in the economic sectors of fishing and tourism, as well as the public sector of welfare. Moreover, there are reported challenges in attracting unskilled workers to the fishing industry. The western parts of Greenland have a more stable year-round labour market based on the fishing and processing industry, while on the east coast initiatives aimed at developing the fishing sector have yet to succeed.
Iceland	Labour shortages are not a major issue for the Icelandic economy or its public sector, with labour mobility between regions and international immigration appearing to have matched labour demand effectively. While labour shortages – estimated by vacancy-to-unemployment ratio – are somewhat higher outside the capital region than within it, regional difference are not large.

Norway	Private business sectors in agriculture and fisheries, as well as the green energy sector, are highlighted as being in need of future labour, as are the school system and elderly care. Variation between regions – regardless of locale and population size – is surprisingly low. Nevertheless, labour shortage problems are currently largest in the rural north (Troms, Finnmark and Nordland) and of least significance in the capital region (Oslo).
Sweden	The key challenge facing many rural regions is an absolute shortage of workers. This is particularly apparent in certain regions – for example, there is high demand for workers in northern Sweden. At the same time, there are municipalities (rural and particularly urban) that are also experiencing high unemployment. This indicates local pockets of mismatch.
Åland	Åland possesses detailed knowledge on the regional needs of both the public and private sectors, with specialists and highly educated workers particularly sought after. There are indications of labour shortages in the case of 'occupations in health and social care', 'technicians and associate professionals' and 'service and sales workers', as well as in 'horticulture', 'agriculture', the 'restaurant sector' and 'cleaning'.

Source: Summarised and developed based on national outlook chapters.

Strategies to prevent and solve rural labour shortage

As described in the introduction of this report, and as illustrated in Figure 10.1, the problems identified as needed to be scrutinised in order to understand rural labour shortage are at least three-fold:

1. a shortfall in the absolute number of potential workers;
2. a shortfall in the number of people with the relevant competence/skills to perform the jobs available; and
3. discrimination and predefined ideas on the part of employers regarding the skills and people they are seeking.

Moreover, taken together, this study has identified common solutions and strategies to address these problems.

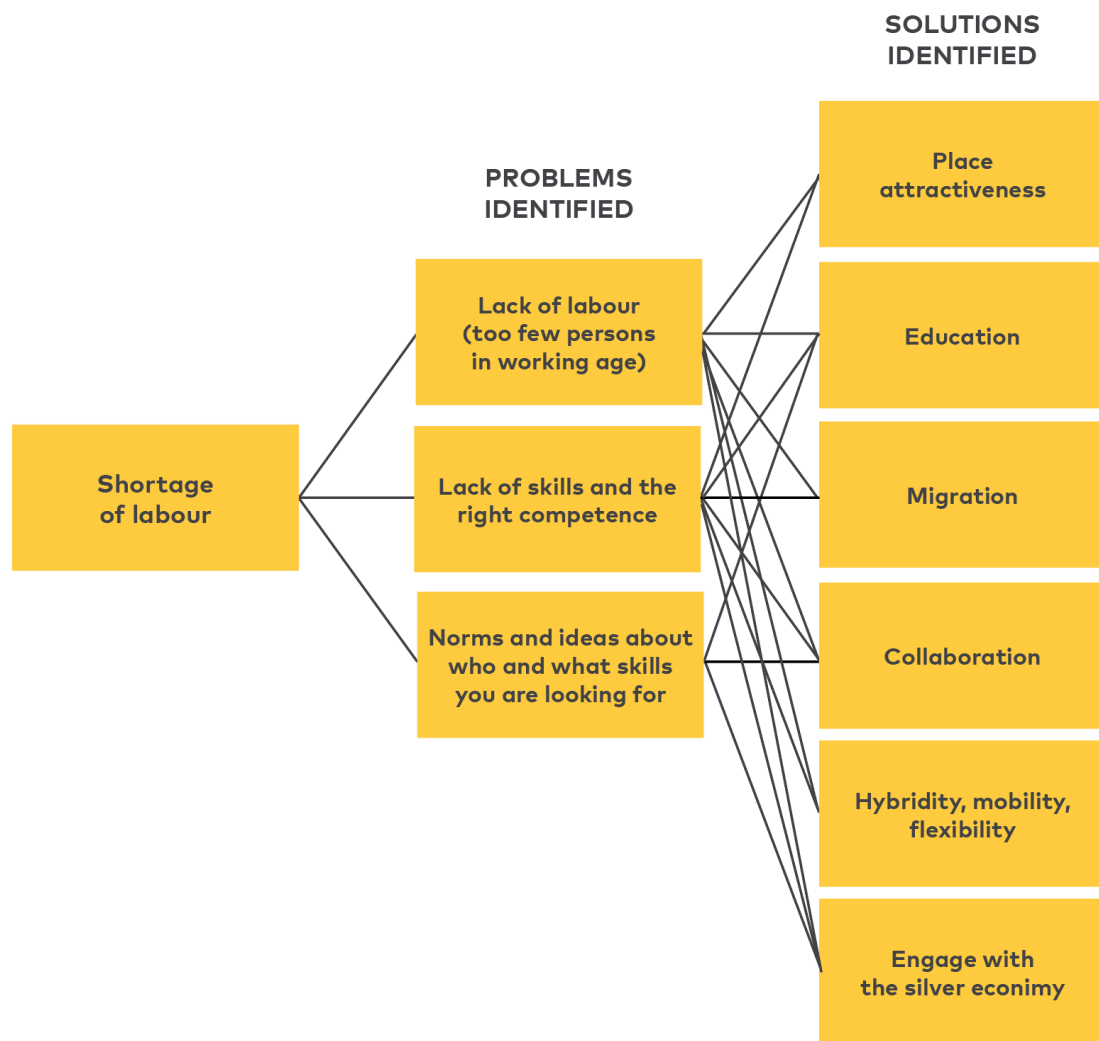


Figure 10.1: Illustration of problems and solutions of rural labour shortage.

Each of the national outlook chapters set out a number of formal and informal, direct and indirect strategies for addressing rural labour shortages. Taken together, and combined with previous studies, six common solutions and interrelated 'strategies' can be identified. These can be seen as a Nordic catalogue of strategies to address rural labour shortage:

- 1** **Nurture place attractiveness and ensure thriving living environments**
- 2** **Provide education for life-long learning, as well as vocational training for the unemployed**
- 3** **Encourage interregional and international migration**
- 4** **Facilitate collaboration between a broad set of stakeholders**
- 5** **Pursue hybridity, mobility and flexibility (innovations, digital solutions, travelling teams, consultancies)**
- 6** **Engage with the silver economy (hiring retirees, pension reforms)**

In the following, these strategies are described in more detail.

STRATEGY 1: Nurture place attractiveness and ensure thriving living environments

It is clear from both the national outlook chapters and previous studies (Kull et al. 2020) that 'place attractiveness' is a core strategy when it comes to combating rural labour shortages in the Nordics. In this respect, rural municipalities and communities have a key role to play in ensuring living environments are thriving and welcoming.

Place attractiveness is intangible in that it relates to feelings of having a high quality of life and being 'at home'. How best to induce such feelings depends on the individual involved, although some elements can be generalised. These include providing adequate housing for those living in or planning to move to an area, and enabling access to services and infrastructure (e.g. facilitating remote work and education via satisfactory digital infrastructure, and hubs for distance education and shared office space). Place attractiveness also encompasses how people spend their spare time, which translates into investments in cultural, outdoors and sporting activities. Another important aspect is providing the means for inter-regional or international migrants to integrate into their new workplaces and civil society.

The Nordic Rural Youth Panel has highlighted that labour markets cannot be viewed in isolation from young people's other needs (Meijer et al. 2023). In particular, for young people to be able to move to rural areas for work, attention needs to be paid to the connection between local labour markets and housing provision. Here, hybrid solutions can help rural youth engage in work in their local area, while reaping the social benefits of a regular workplace. Moreover, in order to make rural labour markets more dynamic, there have been calls for companies to establish physical offices, as well as investments in makerspaces and innovation centres that can provide rural start-ups/entrepreneurs with access to technology, equipment and business courses. 'Rural internships' established via collaborations between universities/vocational education institutions and rural companies also offer a potential means for young people in rural areas to gain labour market experience.

The Finland, Greenland and Norway chapters point to the fact that part of being an attractive place to live and work is having productive employers that offer good working conditions and flexible working hours agreements. In Iceland, meanwhile, the Icelandic Regional Development Institute ('*Byggðastofnun*' in Icelandic) runs a 'Fragile Communities' initiative, which aims to increase employment and sustain rural communities through boosting local economies and infrastructure.

The Swedish Agency for Youth and Civil Society (MUCF) has set up a fund to support youths in rural areas, having discovered they do not feel as included in Swedish society as youths in urban areas. Applicants can request funds for projects up to a maximum budget of SEK 150,000, with successful examples thus far

including creating a meeting place for e-sports in Tierp municipality and establishing a cultural centre for youths in Eslöv municipality (Swedish Agency for Economic and Regional Growth 2023).

Rural dimensions of place attractiveness is also further explored in other ongoing projects Nordregio is a part of, such as the project GRANULAR^[20], which stands for Giving Rural Actors Novel data and re-Useable tools to Lead public Action in Rural areas.

STRATEGY 2: Provide education for life-long learning, as well as vocational training for the unemployed

All the national outlook chapters stress that competence development and skills training for the rural labour force is needed to meet Nordic labour market demands. This challenge has also been acknowledged at a European scale, with the twin trends of the green transition and the digital transition bringing increased attention to bear on skills and skills enhancement (EC 2024). In response, the European Commission has produced an ambitions action plan, which will need to be implemented regionally if it is to have a significant impact. More generally, the local and regional level is increasingly being recognised as key to addressing skills mismatches (Lundgren et al. 2020: 47–60).

Elsewhere, a report on economic policy in the wake of the COVID-19-pandemic (Calmfors & Sánchez 2024) highlights the big differences that exist between Nordic labour markets (Forslund 2024). Despite these divergences, the macro-analysis shows that educational efforts and language, digitalisation, and technology training has, together with public support for jobs and employment, had positive effects. Although the pandemic caused big disruptions, a higher share of the Nordic population is recorded as being in employment following the pandemic than was the case before it hit (Forslund 2024). Even so, the results presented in this report indicate that further improvement is needed, especially when it comes to the Nordic region's rural areas.

The national outlook chapters also point to the perceived importance of providing onsite rural training and education, as attracting people back to rural areas once they have completed their tertiary education elsewhere has proven to be a challenge. One potential solution is to maintain (or in some instances develop) a decentralised education system, establishing more targeted 'remote learning hubs' that are connected to the educational bodies capable of providing the skills and competence needed. This is further explored in the Nordregio project EDYNORA^[21], focusing on Education and young adults in Nordic rural areas.

20. <https://nordregio.org/research/granular/>

21. <https://nordregio.org/research/education-and-young-adults-in-nordic-rural-areas-edynora/>

The Greenland and Norway chapters highlight that educational demands are important for all age groups. As such, it is important to mobilise local people and upgrade their skills to match the work in hand. The reported reluctance to undertake vocational training and adult education programmes can potentially be addressed by relating vocational training to employment benefits, as in Åland, or providing educational opportunities that take account of the seasonal workloads of those being trained, as in Greenland. In Finland, recruitment training in the metal industry and apprenticeships in the forest sector have yielded positive results. Meanwhile, the initiative taken in Norr- and Västerbotten (Sweden) to coordinate a thorough skills survey and then tailor training and education accordingly offers a promising avenue for meeting labour market demands.

STRATEGY 3: Encourage interregional and international migration

In Nordic rural areas where vacancies exceed the number of unemployed with the required skills, interregional and international migration is needed to ensure good labour force matching. In this respect, migration has been acknowledged as a crucial strategy for labour markets in Finland, Norway, Sweden and Åland.

In Åland, policy support has been provided to attract back Ålanders who have moved away for studies, alongside campaigns and activities encouraging inter-national labour migration. The national outlook chapters also show that relevant migration strategies – for instance, facilitating work permits, language training, and societal and workplace integration – exist in Finland, Sweden and Norway, albeit they are in need of improvement. The fact that extensive language training, alongside programmes directly involving employers, can be effective policy tools for integrating people who have already migrated into Nordic countries but remain outside the labour market has been highlighted in previous studies (Gassen et al. 2021).

The Iceland chapter shows that although international labour migration is supporting the country's rural labour market, this is not necessary a deliberate policy strategy. Elsewhere, the Denmark chapter highlights that avoiding the outward migration of vocationally trained workers is key for rural areas. Here, an important determinant of whether someone leaves their rural municipality is where they undertake their apprenticeship as students.

Turning to the Norway chapter, the country's rural-based fishing and agriculture industries are pursuing two strategies for recruiting workers from (mostly) Eastern Europe: 1) buying services from recruitment firms for seasonal workers; and 2) recruitment driven by informal networking, using the relations firms have established with seasonal workers over time.

Integrating refugees and migrants into Nordic labour markets offers a number of

opportunities for addressing labour shortages. There has been a substantial increase in migration to the Nordic region, particularly since the 2015 refugee crisis and more recently since the 2022 full-scale invasion of Ukraine by Russia. According to Berlina and Cavicchia (2023), there are approximately 3.5 million immigrants residing in the Nordic countries.

Focusing on employer experiences regarding the integration of immigrants into Nordic labour markets, Berlina and Cavicchia (2023) point to the prevailing consensus among their interviewees that the long-term advantages of employing immigrants outweigh any initial challenges, particularly given the labour shortages faced in various sectors. Furthermore, the employers note that integration processes tend to be smoother than initially anticipated. In terms of relevant support from public authorities, long-term funding for employing migrants is highlighted, as well as providing assistance to employers in sourcing and employing people with foreign and/or refugee backgrounds.

Meanwhile, in their study on migration in Western-Europe, Pricila Birgier and Cantalini (2024) found that non-Western migrants and migrant women face more challenges than Western migrants and male counterparts, respectively. Migrant women in Nordic countries even experience a 'double penalty' of low employment rates and high education. Also, a study of migrant workers in Finland suggests a failure to recognise the competencies they have acquired both locally and abroad has undermined their labour market integration, confining them to low-status secondary sector occupations (Ndomo 2024). Effective integration therefore needs to target discriminating factors, and challenge prevailing norms regarding who possesses the relevant competence to perform a job (Ndomo 2024: 73).

As the Sweden chapter makes clear, strategies that rely on public tax funds to combat rural labour shortages must be both experimental and effective in order to function meaningfully. Towards this end, the 'Relocate' project attempted to address low interregional mobility by encouraging people from southern Sweden (Stockholm and Malmö) to move to the country's north (Skellefteå). The initiative – a collaboration between Region Västerbotten, the employment agency, Skellefteå municipality and Northvolt, and co-financed by the European Union and European Social Fund – identified various obstacles that require policy adjustments in order to make interregional migration more attractive. For instance, the employment agency's changed mandate since 2021, together with the fragmented service provided by private agencies, has created a void in responsibility. As such, a designated actor is needed to coordinate movement between the areas sending and receiving potential workers, and to mitigate the bureaucratic obstacles faced in relation to migration, education and housing.

In 2023, in response to calls from companies in certain industries for example, glass producer Emhart Glass in Sundsvall the Swedish Migration Agency (2024) introduced a fast-track (maximum 30 days) system for high-skilled immigrants.

Moreover, recruitment support for business start-ups in finding the right competencies has been introduced (SVT nyheter 2024a; Swedish Migration Agency 2024).

Competence mobility between the Nordic countries constitutes another type of labour market mobility. According to Lundgren and Bogason (2022), labour market mobility between the Nordic countries is somewhat modest. Of the total Nordic population of 27.2 million, roughly 40,000 people relocate to another Nordic country each year, while another 49,000 commute to a job in another Nordic country. The same study finds that, of the working-age population working in a Nordic country/territory other than the one in which they were born, the majority of those working in Finland are from Sweden, a large majority of those working in Greenland and Faroe Islands are Danes, and a mix of Swedes and Finns make up the bulk of those in Åland. Elsewhere, Norway, Iceland and in particular Denmark display a more mixed pattern (Lundgren & Bogason 2022; 2023).

International migration – and especially the positive effects of migration that are often overlooked – is studied in the PREMIUM_EU project, within which Nordregio focus on policy analysis and recommendations^[22].

STRATEGY 4: Facilitate collaboration between a broad set of stakeholders

All the chapters presented in this report point to collaboration between actors as a potential model for solving labour shortage in rural areas. This collaborative approach is acknowledged in the national-level policies of every Nordic country, although variations in approach can be seen.

The study's results suggest further work is needed in terms of setting up publicly funded coordinating bodies that could act as a form of relocation service for interregional and international migration. Such a service – which would provide assistance to anyone looking to relocate for a job, along with their family – would likely prove fruitful in combating rural labour shortages. Here, the 'one door in' policy currently being developed in Åland offers inspiration, especially in combination with the territory's well-established moving home campaign and the policy support extended under the 'Åland Living' brand.

In Greenland, so-called 'Majoriaq' centres, located in the local community of each town, have been established to guide people towards employment and/or education. Ensuring the success of these centres requires ongoing collaboration between citizens, vocational schools, centre employees and companies.

In Denmark, various stakeholders are finding ways to address the structural challenges faced in relation to demography and becoming a specialised knowledge

22. https://nordregio.org/research/policy-recommendations-to-maximise-the-beneficial-impact-of-unexplored-mobilities-in-and-beyond-the-european-union-premium_eu/

economy. The identity of these actors appears to depend on the rural region in question.

In Finland, building cooperation between rural enterprises is being pursued as a key solution to rural labour shortages. This includes collaborating to recruit foreign labour directly from abroad, and engaging in rural development projects aimed at improving work conditions.

In Norway, it is usually the rural municipality – supported by regional and national centres of expertise (and financial contributions) – that assumes the role of 'community developer'. This collaborative approach, which involves cooperation with local industries and voluntary organisations, appears to be the most effective way of dealing with the country's rural labour shortages.

In December 2023, a tripartite dialogue was held in Reykjavík as a response to public anxieties around potential job losses linked to climate policies and the green transition (Nordic Cooperation 2023). The Nordic government representatives present, along with their social partners, signed a memorandum of understanding (MoU) addressing the effects of the green transition on Nordic labour markets. Given that agreement between governments, labour unions and the business sector is fundamental to ensuring effectively functioning Nordic labour markets, this MoU potentially has a central role to play in guiding how the green transition impacts regional and rural jobs. In this respect, a key statement contained in the MoU is: *'We recognize the need for new types of skills to match new types of jobs as industry is transformed into a low-carbon economy. Good opportunities for re- and upskilling of workers and job seekers will therefore be essential'* (Nordic Cooperation 2023).

How to work with collaborative approaches in regional planning and policy – in terms of science-society-business-policy interfaces, multi-actor platforms, actor-networks, or collaborative hubs for innovation has been further addressed in Nordregio-projects such as SHERPA^[23] and Collaborative Regional Leadership^[24].

STRATEGY 5: Pursue hybridity, mobility and flexibility (innovations, digital solutions, travelling teams, consultancies)

Hybrid, remote and digital solutions offer a means of creating or maintaining a cost-effective rural (vocational) education model. Moreover, hybrid and remote ways of working are crucial for future-proofing currently thriving rural areas, particularly in light of ongoing urban–rural integration and rapid development of the knowledge economy in the Nordic region. Given the considerable focus on the knowledge economy in labour market developments, and as well in Nordic business

23. <https://nordregio.org/research/the-sustainable-hub-to-engage-in-rural-policies-with-actors-sherpa/>

24. <https://nordregio.org/research/collaborative-regional-leadership/>

policies, it is important to ensure the rural dimensions of any related activities are fully taken into account.

The Finland chapter shows that while the country's higher educated labour force is already very mobile, in some hospitality and manufacturing industry occupations a further increase in mobility would be helpful. The Greenland chapter, meanwhile, presents the idea of travelling teams – which can cover competence in almost every sector at a national level and be deployed on short-term assignments to different regions – as a mobile, flexible solution to local skills shortages.

Ensuring flexibility can also be a useful strategy, with rural service providers facing challenges in attracting highly skilled workers such as medical doctors, nurses and teachers (Penje & Berlina 2021). Poorer career advancement prospects in rural areas located far from university 'competence centres' or central hospitals discourages ambitious professionals from seeking employment in rural communities (Slätmo et al. 2022). Here, although the use of short-time contracts and consultancies can be seen – at least to an extent – as a flexible solution to labour shortages, it is questionable whether such an approach is sustainable over the longer term.

In Sweden, the 21 regional authorities have joined forces to implement a strategy aimed at saving tax funds by creating a common platform that puts a cap on salaries paid to doctors working under short-term contracts (SVT nyheter 2024b). From a taxpayer perspective, such initiatives are especially important for rural areas, where it has proven particularly difficult to fill healthcare vacancies.

STRATEGY 6: Engage with the silver economy (hiring retirees, pension reforms)

Both urban and rural populations are getting older over time across the Nordic countries (Stjernberg 2020). Older people do, however, continue to make valuable economic and societal contributions after retirement, and can provide significant economic and societal benefits, especially if they remain healthy and active (Stjernberg et al. 2021). In a cohort study of the Swedish population, Vilhelmsson et al (2021) report on comparisons between new and previous generations regarding activities in older age groups. The study indicates substantial increases in overall active ageing activity: increases by 7 h per week among the older old and 3.5 h among the young old and older middle-aged. New generations spend more time on work, paid or unpaid, and leisure digital interaction; for some, this is counteracted by less free time spent on social engagement. The new generation of the older old group spends more time on outdoor activity and exercise. These time-use patterns are gendered and dependent on education, mainly due to changes in cohort composition. Here, the 'silver economy' refers to all economic activity linked to older age groups. To some degree, fulfilling the silver economy's potential requires

changing popular often stereotypical perceptions of the ageing population. Making society more age-friendly, including taking genuine account of senior citizens' aspirations, is central to making the most of the opportunities presented by the silver economy.

The ageing of the local population is often most keenly felt in rural areas. Given that seniors constitute an increasingly important consumer base, there is potential for recognising and actively promoting the silver economy in such locales. Moreover, active seniors can contribute to addressing labour shortage issues by coming out of retirement or acting as mentors to untrained staff (Slätmo et al. 2022; Stjernberg et al. 2021). Hörnström et al. (2015: 51) also highlight pending pension reforms in Finland, Norway and Sweden as being an important element of the three countries' national strategies for combating labour shortages.

Lessons learnt and future outlook

Labour markets in the Nordic countries show interregional differences both between and within countries. In some urban and rural areas, there is a good balance between jobs and available workers; in others, there are shortages in the market, leading to too few jobs; and in still others there are labour shortages, meaning there are not enough applicants with the right competence. The chapters in this report point to the fact that labour shortages in Nordic rural regions are caused by one or both of a lack of labour (too few workers) and a lack of skills/relevant competence in the existing workforce. Such obstacles hinder regional labour market growth and can contribute to unequal regional development.

There are no quick fixes to the problems at hand, as rural labour shortages are interwoven with a wide array of complex issues – from structural challenges relating to demography, migration and digital/green transition-related economic shifts, to the place attractiveness of rural areas, to changes in shorter-term business and seasonal cycles. While the strategies provided above offer inspiration, they come with the caveat that whichever approach is taken should be adapted to the region that is their subject. In doing so, the in-depth knowledge provided by the national outlook chapters can provide invaluable assistance to local actors dealing with specific (rural) challenges.

One of the key questions this study has sought to explore is: 'How can the strategies in use to address labour shortages be better targeted at rural-specific problems?' With this in mind, developing a business and economic, or regional and rural, policy adapted to Nordic rural economies should be given priority going forward.

In attempting to tackle labour shortages, it is important to acknowledge the relatively large proportion of non-wage workers that Nordic rural areas contain relative to urban areas (i.e. individual entrepreneurs/self-employed workers, family

businesses, and business with only two or three employees in sectors such as agriculture, forestry, fishery, tourism, natural products, and construction and maintenance work). As such, any business or regional policy wishing to incorporate a rural angle needs to take this disparity into account above all, it requires a political willingness to pursue hybrid, mobile and flexible policies. More specifically, business and growth departments at the municipality and regional level would gain from proactive coordination and networking efforts, including travelling to enterprises regardless of their size in order to listen to their needs and forge concrete connections. Such efforts can play a useful role in strengthening rural and regional business networks, enabling the concrete establishment of 'innovation ecosystems'.

This study has also demonstrated that creating or maintaining good living conditions is crucial to addressing rural labour shortages, both in terms of those already living in Nordic rural areas and those who may be enticed to migrate there. Activities towards this end include ensuring adequate housing; enabling access to services and infrastructure (including functional digital infrastructure for remote work and education); providing sufficient leisure facilities; and facilitating the integration of newcomers into workplaces and civil society.

Given that Nordic rural areas are more prone to having an ageing population than urban areas, with seniors constituting an increasingly important consumer base, there is potential for making use of older age groups in combating rural labour shortages. This will, however, only help up to a point, and should be pursued in conjunction with solutions targeting the 'rural knowledge economy', as well as the twin digital/green transitions.

Nordic education systems also require a greater rural focus if they are to avoid out-migration from rural areas by those undertaking university studies or vocational training. It is therefore important to ensure a framework is in place for life-long learning via online skills and competence training. Here, remote learning hubs, seasonally adapted training, and strengthening links between education courses and apprenticeships at rural workplaces all have a role to play.

Finally, collaboration between rural businesses and public sector leadership may prove fruitful when it comes to skills enhancement and attracting migrants both from other regions and abroad. Policymakers must be willing to experiment in their attempts to come up with regionally adapted innovations, and as part of this make efforts to ask rural businesses about their most pressing needs.

In sum, there are no quick fixes and inevitably some initiatives will be met with failure. If the countries and territories of the Nordic region are to achieve a sustainable, robust future, however, such failures must be embraced as learning opportunities rather than moments of defeat.

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About this publication

Strategies to Address Nordic Rural Labour Shortage

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Nordregio report 2024:23

ISBN 978-91-8001-128-0 (ONLINE)

ISBN 978-91-8001-129-7 (PDF)

ISBN 978-91-8001-124-2 (PRINT)

ISSN: 1403-2503

<http://doi.org/10.6027/R2024:23.1403-2503>

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Communications: Miia Itänen

Layout: Agger Grafisk Design

Cover Photos: iStock, Freepik, Unsplash and Maud Lervik/norden.org

To cite this report, please use: Slätmo, E., Norlén, G., Dzhavatova, K., Carstensen, M.B., Vihinen, H., Hammeken, B., Sölvi Kristjánsson, A., Aarsæther, N., Eriksson, R.H., Johansson, L., and Lundberg, T. (2024). Strategies to Address Nordic Rural Labour Shortage. Nordregio report 2024:23. <http://doi.org/10.6027/R2024:23.1403-2503>

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