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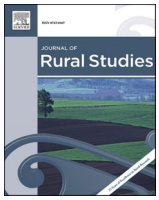

Attracting, recruiting and retaining residents and staff – a systematic literature review of studies in northern Sweden, Finland and Norway

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ABSTRACT

This paper is based on a systematic literature review, with the aim of identifying and discussing what previous research says regarding strategies local, regional and national actors have, to attract, recruit and retain residents and staff to the north of Sweden, Finland and Norway. Being geographically peripheral, grappling with a demographic challenge; with an aging and declining population, at the same time as there are increased work force needs due to the green transition and the changed military presence in the area, this is a clear case of a region with severe skills-supply issues.

A main finding is that the literature is rather limited, only 21 publications of relevance were identified. Three key themes emerged: attracting, recruiting and retaining staff (and residents) in the healthcare sector, immigration as strategy for attracting, recruiting, and retaining residents and staff, and regional and municipal development strategies. Rather few studies examine specific strategies, and even fewer their outcomes. One exception is research on the healthcare sector specifically, where it is found that connecting individuals as early as possible, via initiatives such as internship and decentralized education and training, along with offering good conditions for learning and professional development are key aspects in sustainable strategies for attracting, recruiting and retaining medical staff and residents to work and live in the rural north. Still, more studies are needed, on different levels, where the outcomes of specific strategies are examined. Such studies would contribute with much needed basis for policy makers in making evidence-based decisions regarding staff recruitment and retention.

1. Introduction – resident and labour shortage in the north

A shrinking and ageing population, and long-term geographical concentration of population to metropolitan regions, has resulted in a structural labour shortage in the northern regions of Sweden, Finland and Norway. Being northernly and also largely rural, and some places even remote, the circumstances pose a major challenge in general and specifically so in relation to the current development of economic restructuring associated with the so-called green transition, as well as the current geo-political circumstances inducing intensified military presence in the area. But also enhanced demand for national self-sufficiency in resources such as energy, food production and critical minerals. These trends combined enhance a future need for staff in these northern regions, and actors such as employers, politicians and policy-makers are increasingly compelled to find viable strategies to counteract population decline and secure competence on the local labour markets in the new industries, but also in other sectors (see Table 1, Fig. 1).

The issue of labour shortage is already widespread in many European regions and the problem is expected to intensify in the coming years (Eurofound, 2025), indicating that this systematic literature review on strategies for meeting with skills-supply issues has wider relevance t. While skills mismatch is a prevalent urban problem, rural areas such as the Northern parts of Sweden, Finland and Norway, are often characterized by demographic aging and shrinking pool of people in working ages, and unemployment levels are hence generally low due to structural labour shortage (Slätmo et al., 2024). These places are rurally and peripherally situated and are associated after decades of negative net-migration, as places that people leave rather than places that attract in-migration (Sundvall, 2024). Indeed, there is a serious skills supply problem in the north of Sweden (see e.g. Arbetsförmedlingen, 2024;

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Table 1
PEO - Concept map.

Population	Exposure (context and move)	Outcome (strategies)
(New) residents	Regional	Attract
(New) inhabitants	Rural	Recruit
	Peripheral	Retain
Employers	Remote	Skills-supply
Employees	Countryside	Competence-supply
Workforce	Municipalities	Liveability
	Sparsley populated	
Labour market	Province/provincial	Strategy
Higher education		Marketing Campaigns
	Migration	Place marketing
	Geographical mobility	Place branding
		(Place) image building
	Sweden	
	Norway	
	Finland	
	Nordic countries	

Dagens Nyheter, 2024; Parding et al., 2023; Akademi Norr, 2024; NAV, 2025; Borge, 2023), as well as in Finland, where similar issues are identified, with shortages within certain sectors, such as the health-care sector, but also matching issues, as well as unemployment in some sectors (Slätmo et al., 2024). Whilst these findings are not exclusively for the north of Finland, they include the north of Finland (Valtioneuvosto/Arbets- och näringsministeriet, 2023; Slätmo et al., 2024). In fact, it seems to be difficult recruiting in Finland altogether, and in the north of Finland 75% of employers have difficulties recruiting (Helsiniki Times, 2023). Norway has, since 1990, implemented both individual-oriented and business-oriented measures in the action zone, which includes all municipalities in Finnmark County and the seven northernmost municipalities in Troms County, to make the zone an attractive region to live, work, and conduct business in (Velferdsforskningsinstituttet NOVA, 2022; Regjeringen, 2025). The individual-oriented measures include lower taxes, student loan write-downs, and exemption from electricity tax. The most important business-oriented measure is the exemption of companies from employer's social security contributions. Despite these efforts, the north of Norway have challenges in finding staff (Kunnskapsbanken, 2024; Waage et al., 2024). The individual-oriented measures in the action zone appear, at best, to have a temporary effect, and their value has decreased over time (Velferdsforskningsinstituttet NOVA, 2022). These findings are supported by Maersk and Norlén (2024), who in examining the Nordic labour market find the same trends. In fact, a main reason why businesses in the north cannot grow is the labor shortage (see e.g. Affärer i norr, 2021; Dagens Nyheter, 2022; Ejdemo and Örtqvist, 2022; SVT Nyheter, 2023).

There is a regained currency for the issue of attracting and recruiting new residents, and retaining existing ones, to smaller and geographically peripheral labour markets in general, and perhaps particularly so in relation to the so-called green transition, and the potential of new jobs being created in the wake of this transition. In fact, the so called green transition has been described as pivotal for society at large, and as a great opportunity for northern communities to prosper.

In media, a clear and relatively unison picture of the problem is painted; enormous work force needs both in industry (where most *new* industries have been established, or are planned to be established), as well as on the labor market in general, in everything from the transport sector to the public sector. In fact, the employer organization Industriarbetsgivarna (The Industry Employers) in Sweden goes as far as claiming that the green transition may not be realized unless more individuals with the right competence become available, and call for more training and education in needed areas (Dagens Nyheter, 2023). Educating existing local labour force will however not be enough to meet the demand for labour, and new residents need to move into these

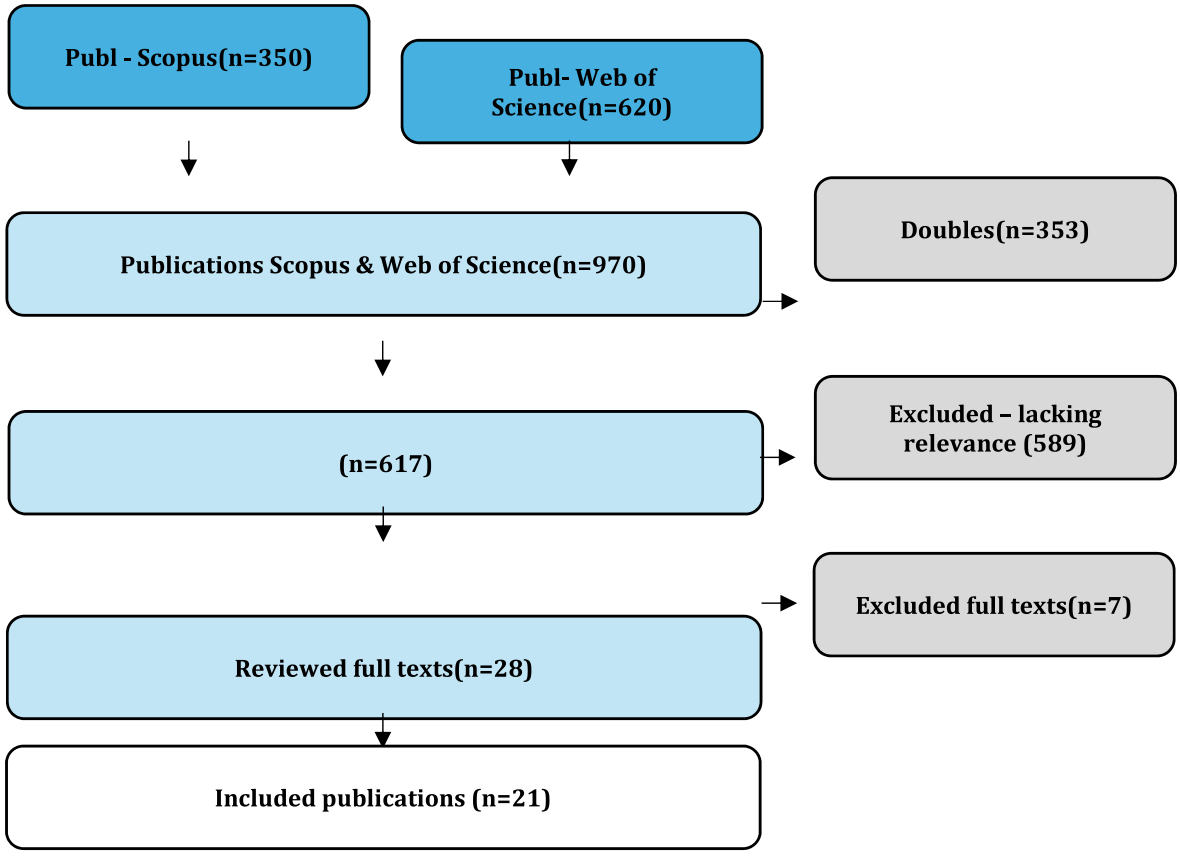

Fig. 1. Sample process.

regions. Not only the success of investments in the green transition is challenged by labour shortage. The very idea of the universal Nordic welfare model where all citizens can expect a certain level of services from the public sector regardless of place of residence, is challenged in rural areas when not only local taxbases are shrinking but also lack of necessary competence in the public sector (Syssner, 2020).

Another concern for these regions is the risk that many vacancies will be filled by so-called 'fly-in-fly-out' (FIFO) workers. These workers neither settle nor pay taxes where they are employed, nor do they engage with, the local community to the same extent as those who live and work there. In fact, in a recent article in Svenska Dagbladet, a concern is raised by the Confederation of Swedish Enterprise, that the new jobs in northern Sweden are staffed by FIFO, rather than by individuals who choose to move up north (Svenska Dagbladet, 2023). It is important to stress that FIFO is problematic from several perspectives, as we know that for a community or a region to develop sustainably, individuals need to be anchored socially, culturally and economically, as this assists in commitment, willingness and ability to see themselves as part of and contribute to society as a whole. In Australia, where FIFO is a phenomenon that has existed for a very long time, the issue has also been discussed in terms of "development *in* a region without necessarily significant development *of* the region" (Rainnie et al., 2014:103), which means that development and profit can be created in a region, but for actors who are not anchored in the region. FIFO in primary healthcare among general practitioners is on the rise in rural Norweigan municipalities and vacancies are filled (Prestgaard et al., 2024). There is, however, no research on the long-term consequences. Another challenge posed by FIFO and other temporary populations is the strain on the housing markets as these populations compete with potential permanent residents for housing (Stenbacka and Cassel, 2024). A related scenario that has been observed in relation to large scale investments in northern Sweden is that a substantial part of vacancies are filled with people who retain their residence elsewhere and also foreign born populations (Tillväxtanalys, 2025). As states deploy restrictive immigration regulations increasingly reluctant to grant permanent residency, migrant workers become temporary visitors rather than long term residents.

It seems employers and regions and municipalities are working on being innovative in attracting, recruiting and retaining residents and staff. A survey conducted by the Norwegian Ministry of Local Government and Regional Development (2022) shows that 75 percent of all Norwegian municipalities have implemented their own incentive schemes to attract workers, new residents, or retain young residents. The proportion is highest in northern and rural municipalities. However, it also seems everyone is searching for the 'best formula' in terms of successful strategies for doing so, seemingly without much evidence-based knowledge. As a response to this gap, we have conducted a systematic literature review focusing on what strategies has been described in scientific studies in northern parts of Sweden, Norway and Finland, and which of these have been found to be successful. The aim of this paper is to describe and discuss what previous research shows regarding strategies local, regional and national actors have, to attract, recruit and retain residents and staff to the north. The following research questions have guided the project: *What does previous research say about (successful) strategies for migration/moving to 'smaller' labor markets to meet the skills supply challenge? What initiatives/strategies are there among local, regional and national employers and labor market actors to get new individuals to move to/stay in geographically peripheral areas/areas with too little population/too little workforce? How can these findings be understood?* With this focus, we want to contribute to the literature on conditions for attracting, recruiting and retaining residents in regional, rural and remote places, with a specific focus on northern Sweden, Finland, and Norway The main conclusion of our systematic literature review is that there is a severe shortage not only of residents in these regions, but also of studies examining specific strategies for attracting, recruiting and retaining residents, and most of the studies identified do not present any outcomes of specific strategies.

2. Methods – a systematic literature review

This article is based on a systematic literature review carried out within a project focusing on skill-supply issues in northern Sweden, Finland, and Norway. The review is a rapid review (Grant and Booth, 2009), and as such summarizes existing knowledge on the topic at hand, but is less extensive than a traditional systematic literature review. For instance, whilst it provides an overview it does not include quality assessment of the included studies (Grant and Booth, 2009).

The literature search was done in collaboration with an information specialist, as to identify a solid search. We used PEO (**P**opulation, **E**xposure, **O**utcome) to structure and focus the search, and define inclusion and exclusion criteria. The terms identified through our PEO framework served as the basis for developing the search strings, and as such these terms inspired the formulation of the final search strings, which are presented in Appendix 1. This means that not all terms below were used in the final search strings.

It was decided that we include the northern parts of the counties of Sweden, Norway and Finland without an absolute geographical delimitation. Some publications are included that are not situated in the very north, if they were adjecent and/or rural areas sharing circumstances in peripherality, climate, populations or labour market characteristics. All choices, such as area of inclusion and exclusion, bring limitations. As we wanted to explore skills-supply strategies, in relation to the context of geographical peripherality, labour and resident shortage, and decreasing populations altogether, as well as the so-called green industry establishments, we deemed this a useful limitation. We also decided to include publications between 2010 and 2023, to gain currency. Moreover, only publications that were scientifical publications that were peer-reviewed, written in English, and indexed in the two chosen databases were included. This means that there may be literature of relevance missing, in terms of scope, as we have not included grey literature. We thus acknowledge this choice of only including peer-reviewed scientific literature in form of journal papers may mean that we miss out on other publications on actual strategies and their outcomes that have been published in grey literature for instance. Nonetheless, we argue that we have made a conscious choice, aware of potential limitations this may bring. We used the databases Web of Science and Scopus, as at least two databases are essential in order to build rigor in terms of covering publications of relevance. These two databases are widely used and also give the opportunity for advanced searches. As studies on strategies for skill-supply can be found in a range of subjects, and these databases are both multidisciplinary, we deemed the chances good of securing relevant hits.

All publications that were identified were screened in Rayyan (www.rayyan.qcri.org) and either included or excluded depending on what the title and abstract showed. The three authors KP, EL and BA did their own screening, blindly to the others, of some 50 abstract, and then met to discuss similarities and differences in terms of outcomes of inclusion, exclusion and maybe, which are the three alternatives for categorization in Rayyan. This was done to calibrate the evaluations before each reviewed one third of the remaining abstracts and decide on the ones to include. The aim and research questions, along with inclusion and exclusion criteria, guided the process.

The next step was to read the included full papers, and conduct a second round of including and excluding publications. The aim and research questions, as well as the inclusion and exclusion criteria guided the process. This meant that we limited the selection to papers that explicitly discussed strategies by actors to attract, recruit and retain citizens and excluded papers on processes and development in the regions that were not formulated as an explicit strategy for population growth, retainment or skill supply. We have further excluded papers exploring individual perspectives on for instance migration decisions.

In total, we had 617 hits, after doubles had been deleted. Most articles captured by the search terms were not about skill-supply issues. Only 28 of them were included for full-text review. Due to lacking

relevance, 7 full texts were excluded, and the final number of included publications were 21. Whilst we aimed at empirical studies conducted in northern Sweden, Finland and Norway exclusively, we found a need to broaden this scope somewhat when reading the full texts, as to also include a few rural studies in Sweden, Finland and Norway, sharing circumstances in peripherality, climate, populations and labour market characteristics.

2.1. Categorization and thematization of findings from the included publications

We give a quantitative overview of the included publications, in terms of.

a) when it was published (year),
b) where (in what journals are these issues discussed),
c) where (in what national contexts the studies are situated in),
d) what methods were used in these studies

By doing so, an overview with recurrent patterns is unveiled. Moreover, and most importantly, we have also categorised the included publications in relation to the research questions, in a more qualitative and thematic presentation of findings.

2.2. Method discussion

In this literature review there are circumstances that make interpreting results somewhat complex. In the literature captured, a number of related, to some extent overlapping, but not in any way identical terms are used to referred to the geographical context in which the studies have been carried out. The most common ones are a) NSPA (Northern Sparsely Populated Areas), b) peripheral regions, c) northern regions, d) rural regions, e) remote regions, f) the circumpolar area, and g) the Arctic. This indicates that different perspectives are applied, and also that studies are defined as situated in to some extent similar, but to some extent, different settings. Our focus is the north of Sweden, Finland and Norway, and we searched for publications situated in the north of these countries. However, a result of the exercise of including and excluding abstracts in general, and including and excluding full texts in particular, is that the number of studies focusing on the very north of Sweden, Finland and Norway are rather few. We therefore included publications in rural and geographically peripheral northernly (but not northernmost) contexts as well.

Moreover, the geographical area of inclusion is heterogenous, and some studies are situated in very northerly and remotely places, whereas other studies are situated in northern rural places, still with closeness to towns. This of course makes conditions different. Whilst these differences are important to acknowledge, we still see merit in focusing on the geographical area we have, as there are also commonalities. For further studies, to identify more studies, it could be of interest to also examine if and how strategies may differ in different locations.

3. Findings – A shortage of strategies and outcomes

Below we present the findings, first quantitatively, then qualitatively; where we summarize the publications content-wise.

3.1. Quantitative overview

The publications included have been categorised in terms of when they have been published (year), where (in what journals are these issues discussed), where (in what national contexts), and what methods have been used in these studies. We also discuss what these findings may reflect.

We included publications between 2010 and 2023. There is a fairly even distribution of publications during the timespan for this overview, with a slight increase in the latter half, particularly in the most recent years Diagram 1.

In terms of journals, there is a wide spread in which the included publications are found. One journal has three publications (International journal of circumpolar health). Two journals have two publications each (European planning studies and Journal of rural studies). The remainder only have one publication, and stems mainly from rurality journals and health journals, but other discipline journals are also present, such as entrepreneurship and public administration (Fennia, Review of Regional Research-Jahrbuch Fur Regional wissenschaft, Growth and Change, Journal of Education and Work, Scandinavian Journal of Public Administration, Human Resources for Health, Sociologia Ruralis, Community Development Journal, European Countryside, Social Science & Medicine, European Urban and Regional Studies, Bulletin of the World Health Organization, and Rural and Remote Health). These findings indicate that much of the research included seem to focus on rurality, some also more specifically on skills-supply in the healthcare sector. Moreover, the wide array of journals possibly mirrors that the skills-supply issue altogether is examined from a rather wide variety of perspectives, as well as disciplinary realms.

In terms of where the publications are situated country-wise, there are nine publications situated in Norway only, six in Sweden only, and four in Finland only, and one where both Sweden and Norway are included (along with Canada, Iceland and Scotland), as well as one in Sweden (and also China). Norway stands out, as being the national context in which most research has been carried out, followed by Sweden and then Finland. The findings also indicate a shortage of comparative studies. Whilst it is difficult to discern any country specific patterns, several of the Norwegian publications focus on the very north, and how to attract, recruit and retain staff in the healthcare sector in particular. The relatively high number of publications in the Norwegian context may reflect the historically strong political focus on regional areas and equity in health Diagram 2.

Regarding methods, case studies are the most common, register data studies along with surveys are the second most common. Noteworthy here is that many of the qualitative studies, including the case studies, are based on what interviewees *think*, rather than an *attempting to measure outcomes* of an actual strategy. This may reflect the fact that it is complex to measure outcomes of certain strategies, and that it takes time for outcomes to show, perhaps oftentimes longer than research projects stretch. However, it may also reflect a lack of knowledge-based approach to the use of the strategies - that there is little expectation of quantifiable results. This means that the strategies may be put into action without any plans, strategies or research designs for following up on the outcome due to lack of resources or interest from researchers. It may also reflect challenges in attaining long-term funding for research following specific strategies and their outcomes Diagram 3.

3.2. Qualitative overview

Whilst the research questions guiding this systematic review of the literature were a) *What does previous research say about (successful) strategies for migration/moving to 'smaller' labor markets to meet the skills supply challenge?* and b) *What initiatives/strategies are there among local, regional and national employers and labor market actors to get new individuals to move to/stay in geographically peripheral areas/areas with too little population/too little workforce?* Very few studies actually revolve around particular strategies and even fewer focus on outcomes of these strategies, which in itself is a result. It points at a clear gap in the literature. It possibly also points at the complexity in examining and measuring outcomes from certain strategies, due to difficulties in isolating one strategy or circumstance from the other. Or, as mentioned above, this may reflect difficulties in attaining research funding for such long-term studies. Moreover, a large number of the publications are not explicitly focusing on specific strategies - for solving the skills-supply challenges -, and the outcomes of these, but have more of a focus on

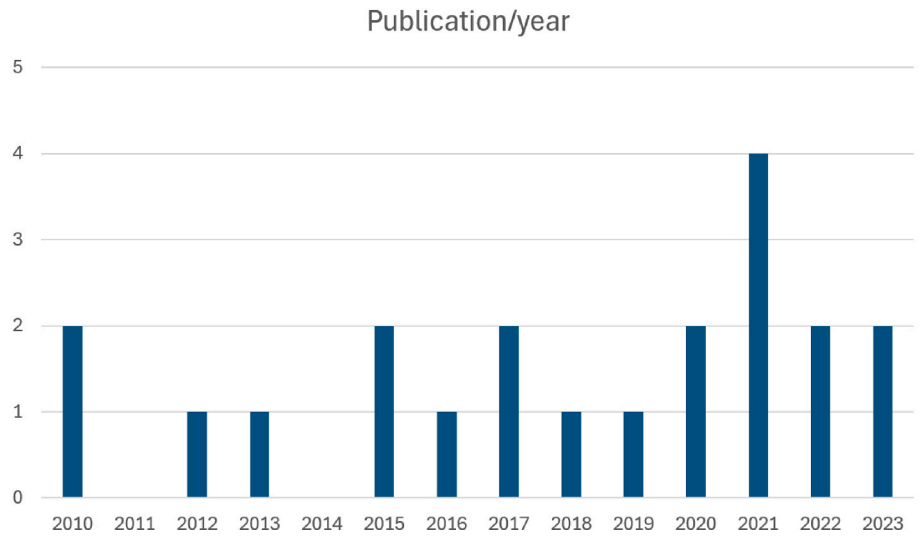

Diagram 1. Year of publication.

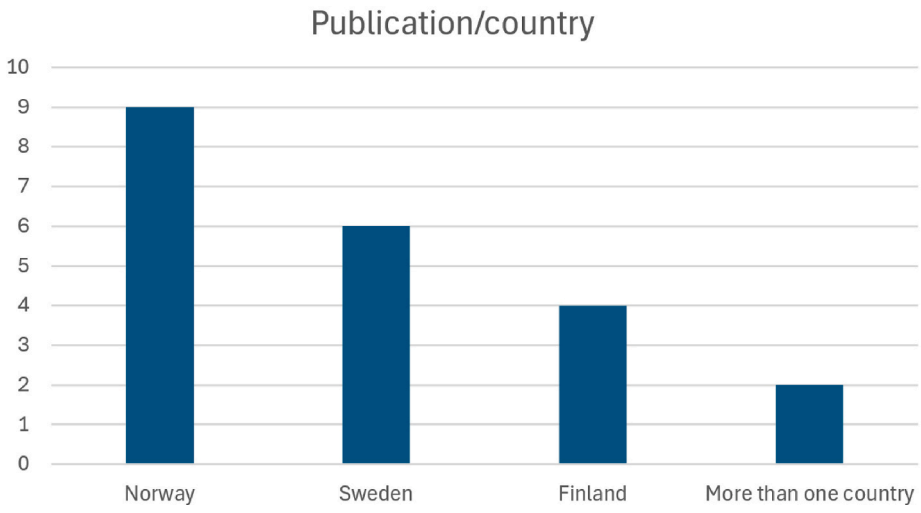

Diagram 2. Publication per country.

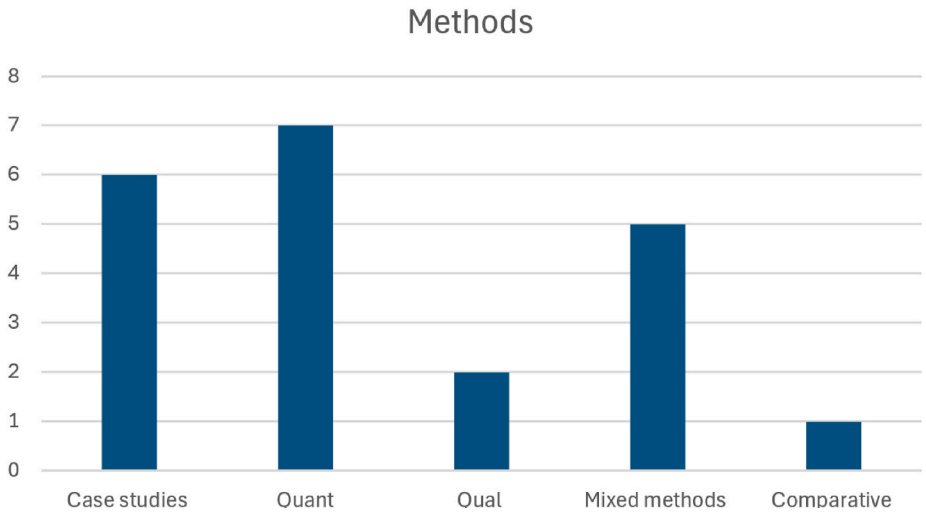

Diagram 3. Methods.

regional and local community development in general.

3.2.1. Attracting, recruiting and retaining staff (and residents) in the healthcare sector

Seven of the publications included deal with the issue of attracting, recruiting and retaining staff, and thus also residents, in the healthcare sector. All these studies are carried out in a Norwegian context, with a particular focus on the north. Moreover, they all focus on the more highly skilled occupations, medical doctors and nurses. Several of these studies tend to be based on quantitative measures, where various strategies are in fact measured and followed up.

One of these studies focuses on what they refer to as workforce stability, with a specific focus on medical doctors, and this is discussed in terms of both attracting, recruiting and retaining staff in the specific place(s)/region(s), as well as with the specific employers. Based on a largescale project, Abelsen et al. (2020) contends that the road to success is to divide the strategy into three different parts; planning, recruiting and retaining. Five key conditions for success are presented: 1) recognition of unique rural and remote conditions, as they differ from urban contexts, 2) active community participation, including alignment with regional and national structures and initiatives, 3) targeted investments and resources for context specific conditions, 4) yearly cycle based recruitment and retention activities, 5) continuous monitoring and evaluation and modification, as needed, by learning from experience.

Other publications are more specifically focused on *various types of internships* for medical doctors. One of those is Gaski and Abelsen's (2017) study on the strategy of 'early sign-up', as compared with the more traditional model of 'raffle'. The authors find that it is essential to tie medical students to specific regions and places, early, as to have the greatest chance of recruiting and retaining them for the long-haul. The early sign-up model, where students themselves signed up for internships in the north and more peripheral contexts, compared to the traditional model where students got to choose place for internship based on a raffle, doubled the possibility for success (i.e. the doctor working in the peripheral north) five years later. With the yearly sign-up model, 29% were still living and working in these contexts five years later, compared to only 14% of the regular raffle cohort. Moreover, Gaski and Abelsen argue there needs to be at least three GPs in the local medical service, and good conditions for professional development as for retention to be successful. Another study, by Straume and Shaw (2010a) also discuss retention strategies incorporated into the internships and further specialist training in general practice in the north of Norway. Interns were offered tutorials in groups, in addition to the day-to-day clinical supervision by their local GP. Those who took a job in the area after their internship, were guided into groups for training in general practice and public health, with all specialist training expenses covered. In their study, 65% of these internship doctors still worked in the area five years later, indicating it to be an effective retention strategy. As others, Straume and Shaw contend that conditions for continuous learning and professional development are essential for retention, as for professionals to have the possibility to grow and develop. Moreover, Straume and Shaw (2010b) discuss that internship for medical doctors is most likely to be successful among a) individuals born abroad, b) individuals brought up in the north, and c) individuals graduating from a university in the north. This means that individuals with no strong geographical affinity with or connection to any other geographical site in the country, and individuals with actual affinity and connection to the very north, are much more likely to take up internships up north.

Another angle on attracting, recruiting and retaining staff in the health care sector is *decentralized, or off-campus nursing education*. Nilsen et al. (2012), examine off-campus education for nursing students. They find that by organizing the nursing program as off-campus, residents who already live in the circumpolar context, have better possibilities of actually staying in their contexts during and after their studies, thus contributing to more residents applying for and undertaking the nursing program, and thus also contributing to decreasing the staffing problem. The retention-rate was 93%, indicating the strategy to be highly successful. Moreover, it seems – just as Gaski and Abelsen (2017) as well as Straume and Shaw (2010a) contend - that being offered good possibilities for further education and professional development after graduation is an important factor for the high retention. Yet another study that focuses on decentralized nursing education yielding a more sustainable recruitment and retention situation is that of Norbye and Skaalvik (2013). Via a survey among former nursing students, they find that the possibility to continue living and working rurally or remotely is useful, as 85% continued to live and work in these settings.

Holte et al. (2015) examine what impact *pecuniary and non-pecuniary incentives* have for attracting young medical doctors to rural general practice. They discuss that in previous studies it has been found that limited opportunities for professional development, a heavier workload and smaller sized workplaces are factors that lessen attraction, recruitment and retention of young doctors in rural areas. In this study, the result points at pecuniary incentives not being the most important for young doctors, but rather there is a need for joint policy programs, bundling several incentives for young doctors to take up rural positions is more important.

To sum up, it seems that connecting individuals as early as possible, via initiatives such as internship and decentralized education and training, along with offering good conditions for learning and professional development are key aspects in sustainable strategies for attracting, recruiting and retaining medical staff and residents to work and live in the north. The area is characterized by large distances to hospitals and specialized services for parts of the population, as well as challenging weather conditions, particularly during winter. This makes it especially important to ensure that the healthcare personnel working far from hospitals have the appropriate professional qualifications and are trained for this, so they can feel confident in performing their duties while also contributing to equitable healthcare services.

3.2.2. Immigration as strategy for attracting, recruiting, and retaining residents and staff

Amongst the included publications, only a few focus on immigration as a potential strategy to gain new residents to northernly and rural areas.

Hudson and Sandberg (2021) discuss immigration as a strategy via an analysis of media representations of rural refugee reception in rural north Sweden. They paint a picture of hope and loss of hope, as regional and national structures, such as political decisions regarding financial support, are often short-term, and not always aligned with the needs in specific communities. Whilst individual communities try to see a possibility of growing, or at least avoiding stagnation, political structures need to align for this to be a realized hope. Benerdal (2021) discuss employers' role in recruitment of immigrants; newly arrived migrants. Local employers see possibilities and deficits in terms of the immigrants, the (rural) place, as well as the educational tracks. Whilst the paper does not analyze the outcomes of these educational tracks for immigrants, the author contends that immigrants are seen as a potential for rural municipalities. Benerdal problematizes what she terms as the 'projectification', as when organized in projects, strategies and initiatives are often more shortsighted, and these issues need long-sightedness to be successful. In other words, strategies for attraction, recruitment and retention of immigrants need to be based on long-term strategies.

A study by Eimermann (2013) looks at international rural place marketing as a strategy to attract new residents. Examining migration information meetings abroad, via observation and survey data, Eimermann (2015:398) contends that "*it is hard to distinguish the effect of rural place-marketing campaigns from the myriad of possibilities for migrants to gather information about potential destination areas*". This study's findings go hand in hand with that of Aasetre et al. (2020:43), who analyze place branding in two rural Norwegian municipalities, *"the analysis revealed no quantifiable effects of such policies when compared with 17 comparable municipalities"*. Whilst there are only two publications on this theme, the

commonality is the lack of evidence for this being a successful strategy for growing the number of residents and the workforce.

Among the studies that identify immigration as a source for new residents, we found both studies oriented towards retaining immigrants who came as refugees to a locality, and studies where municipalities actively tried to attract foreign citizens to move to Sweden and their local community. A common denominator amongst these publications is that whilst communities themselves see potential in immigration as a way to grow the population and workforce, regional and national structures need to go hand in hand for this to be realized. Currently, there are obstacles for optimal realization in this area. Moreover, it can be concluded that findings regarding how successful municipalities' strategies are to attract, recruit and retain immigrants as residents and staff are inconclusive.

3.2.3. Regional and municipal development strategies

We have identified two sub-categories when it comes to regional and municipal development strategies, *Strategies for growth* and *Strategies for sustainable communities*.

3.2.3.1. Strategies for growth. There are a number of publications focusing on municipalities and their planning strategies, in the context of shrinkage. It should be noted that none of these studies are analyses of outcomes of specific strategies or initiatives.

Nyström (2021) finds that municipalities that are the hardest to staff are 'rural and remote', whereas 'rural and located close to urban region' are slightly easier, as commuting is then possible. Whilst it is not only municipalities in the very north of Sweden, but all municipalities in other parts of Sweden that are included in this study, this study has relevance, as it *also* focuses on the north and rural. The findings are based on municipalities' *views on* rather actual experiences of possibilities and obstacles, and findings indicate that municipalities see both pecuniary and non-pecuniary incentives for matching of new residents and new staff as a possibility. Suggestions are relocation support for accompanying persons and tandem recruitment; that is recruiting couples/families, as well as writing off student debts, but these are suggestions rather than evidence-based effective measures.

Another study on municipalities and their strategies is that of Grundel and Magnusson (2022), who discuss how municipalities, struggling with population decline, still plan for investment in infrastructure, with the idea that investment in infrastructure will lead to increased municipal income, from tourism, specific industries and an influx of residents. The study includes municipalities across Sweden with "long-term shrinkage and continuous population loss during the past 50 years" (2023:1188), including northern municipalities. The authors find that it seems that "even though statistical estimations predict that the current trend with shrinking populations in Swedish municipalities will continue, the majority are developing growth strategies and visions for increasing populations" (2023:1195). Examples mentioned are development of infrastructure as to cater for an increased population, and/or increase in tourism, along with allowing exemptions from shoreline protection rules, by permitting homes and small-scale tourism or farming near rural waterfronts, encouranging tourism development, encouranging industry development. Whilst these strategies may bring certain positive effects, it is often secondary gains, such as that industries themselves make money, but do not pay municipal taxes for instance. The municipalities can be said to buy into a "growth-oriented paradigm" (2023:1187). Another study, in a Norwegian context, shows that municipalities with a long-term declining population seem to still want to grow, and plan thereafter, rather than taking departure in the actual decline (Hagen et al., 2023). The authors argue that this growth approach has negative consequences for these municipalities. Also in this study, the idea of a growth discourse is discussed, where the authors argue that there is stigma related to shrinkage, possibly explaining at least parts of the gap between actual circumstances and the municipal plans for growth.

If one idea in population-wise decreasing municipalities is to open up for industrial investment for instance, there are indications this may not yield the positive expected outcome. One of the included publications, based on aggregated micro-data in a remote and sparsely populated context in the north of Sweden, shows that large manufacturing investments in specific regions in fact do not necessarily lead to positive impact on the regional employment by and large, as these large investments can "crowd out incumbent activities" (Adjei et al., 2023:1554). The authors go as far as to say that larger industrial investments may in the circumstances of small and peripheral regions dampen regional employment.

To sum up, the included publications indicate that the growth-oriented paradigm is prevalent in regional and municipal development strategies and can in itself be negative for the municipalities in terms of their use of funding. Moreover, large industry investments have often been described as the saviour for declining regions, but the evidence for this is not there. In fact, large industry investments can instead dampen the regional employment, which shows the importance of critical perspectives, and follow-up studies on regional and local strategies for attracting, recruiting and retaining residents and staff.

3.2.3.2. Strategies for sustainable retention/communities. There are a number of publications in which conditions for shrinking communities are discussed, where parameters of importance for maintaining vibrancy (retention) in these communities are in focus, more so than specific strategies for attracting and recruiting new residents and staff.

In a study by Adams et al. (2022), the concept of liveability is used to discuss a town in decline, still characterized by "vibrancy'" It seems the strategy is rather to adjust to real circumstances, and make the best for the residents who still are living in the town, rather than aiming to grow. The authors argue that the idea of viewing declining towns in terms of decay and loss does not give a fair portrayal, rather they suggest declining towns can also be vibrant based on local initiatives, where residents themselves create liveability. While Adams et al. (2022) write about liveability, Makkonen and Kahila (2021) write about "vitality policy" when discussing rural development in peripheral Finland. The authors argue that public-private-third-sector networks are essential, as to grow vitality in a community. Vitality is defined as consisting of competitiveness, attractiveness and communality, and it is found to be a new term to a not so new strategy. A related study is a case study of three villages in Finland (Kumpulainen and Soini, 2019). The authors discuss what impact community development activities have on rural places, and find three parameters essential for community development, emphasizing community agency: strengthening of an entrepreneurial culture, strengthening networks, and institutionalisation (incorporation of rural governance programs). Whilst acknowledging these three parameters are of importance, the authors also critically discuss the individualization of responsibility, as part of a neo-liberal discourse, which tend to be counteractive. Lønning (2018), in the context of northern Norway, discuss how small remote communities can counter-act centralization and urbanization. He asks how community can be built in an age of individualism, by outlining a network-based community development model. With departure in two decades of research on rural development Lønning claims that contextually similar communities have very different outcomes and finds three parameters central to "success". These are a) the establishment of an umbrella organization taking charge of all activities, b) focus on broad involvement, and c) focus on doing, not planning and waiting for potential funding.

Yet another study emphasizing community engagement is that of Rönköö and Arrevaara (2017). Based on a qualitative case study, the authors highlight how community engagement is central for rural localities. "Meaningful participation enabling the community members to have input and control over planning, as well as having the opportunity to share knowledge and discuss and develop new ideas" (2017: 410).

Interestingly, the authors discuss a weakness in that it is often difficult to engage young residents, at the same time as the engagement - and retention - of young residents is what the future of the communities is based on. Along these lines, is another study in which it is found that bottom-up strategies are effective (Li et al., 2016). What is termed "strong voices" is described to hold people and groups together by encouraging them to work together based on shared goals and values. Moreover, it is stated that the focus should not only be on a vital economic situation, but also on creating good conditions for desirable rural lifestyles. Whilst this study, as the rest of the studies in this theme are not strategy-outcome based, they give insights into the similarity in findings of the importance of individual and local agency, whilst at the same time there is a need for alignment with regional and national policies of relevance.

To sum up, the publications under this theme do not evaluate specific strategies for attracting, recruiting and retaining residents and staff. However, they point at parameters of importance when striving to create and cultivate liveable, vibrant and vital – even if not necessarily growing - communities. Whilst different terms, such as liveability, vibrancy and vitality are used, a common denominator is the importance of a bottom-up perspective, where residents themselves are seen as the ones knowing what is needed, and where they need to be active agents in creating and cultivating their community and retaining its residents.

4. Discussion and conclusions

We introduced this paper by relating the skills-supply focus to current key circumstances in northern Sweden, Finland and Norway; the general skills-supply shortage, as well as the green transition - potentially increasing the shortage, and the geopolitical situation with increased military presence – potentially increasing the shortage even further, along with the risk of FIFO solutions, risking draining rather than assisting in creating prosperous local communities. The findings show that there are few publications on actual skill-supply strategies, and their outcomes, only 21 publications of relevance were identified. Among these, there are very few studies that examine specific strategies, and even fewer of their outcomes. An exception is a group of publications on actual strategies – and outcomes - for attracting staff and thus residents to the healthcare sector in northern Norway. Moreover, there are some publications in which immigration as a strategy for attracting, recruiting and retaining residents and staff is in focus. Finally, there are some studies where various more general strategies for planning for regional development are presented and discussed. It becomes clear that there is a shortage of studies on specific strategies and their outcomes, and that more such studies are needed, on different levels, where specific strategies and/or initiatives are followed up, as for the possibility for policy-makers to make evidence-based decisions. One potential way forward could be to systematically scan grey literature on the topic, as that could potentially mean a possibility to identify more publications on actual strategies and their outcomes. This kind of data could have merit in terms of finding more of what practical strategies are used. Additionally, and as mentioned in the methods discussion, analysing what specific contexts brings in terms of challenges and opportunities could be of interest to, as the study area is not homogenous.

It has been argued that current demographic trends will bid local policy makers to reconsider the growth paradigm, and complement, or even shift focus from what Syssner (2020) calls "local growth policy" towards "local adaptation policy" in response to population decline in rural areas. The latter policy emphasizes improvement of the lives of those left behind rather than hoping to turn the population decline into growth. We argue however, that knowledge-based strategies to secure labour supply are an important element in both strategies. Even if population growth were to be abandoned as a goal, there remains a need to attract, recruit and retain workers with key competences to achieve quality of life for the remaining local population. The finding that the public sector is where we find most studies on strategies to attract, recruit and retain is not surprising considering these services is key to ensure access to welfare services also in depopulating regions, and in addition, it is also essential for the national level to make use of resources needed for the green transition and for securing national interests under geopolitically uncertain times. However, it is notable that studies on recruitment to other sectors that are also struggling with labour shortages such as the extraction or manufacturing industry, or tourism sector are not appearing in this review, which may indicate a shortage, or perhaps that other search terms would have been needed.

The issue of skills-supply is indeed complex to examine; it is often difficult to determine which strategy or activity lead to specific outcomes, given the multitude of contributing and interacting factors. Moreover, another reason as to why there are so few studies of specific strategies and their outcomes is that the issue of skills-supply is complex, and, as such multi-disciplinary approaches may be needed, something that historically has been more difficult to secure research funding for, and also demands that academics from different realms actually meet and find common ground in the first place.

With departure in the above discussed, future studies would benefit from an interdisciplinary approach, where specific strategies and outcomes are examined from different angles, quantitatively (such as numbers of individuals moving due to a specific strategy or activity) as well as qualitatively (how individuals reason about their choices in relation to specific strategies and/or activities, and what rationales local and regional developers base their strategies on). More studies, more specifically on *specific strategies* and their *outcomes* are needed. Moreover, studies that examine not only strategies for attracting and recruiting, but also *retaining*, are of high relevance, as it is well known that those who are prone to move, often are prone to move again, if circumstances change or living and working conditions are not seen as satisfactorily (Eimermann, 2017). When it comes to strategies to attract, recruit and retain international migrants, the studies we found with examples of labour migration, lifestyle migrants and refugees illustrate the diversity of international migration and the importance to acknowledge the temporality and diversity in terms of labour migrants to rural areas (Rye and O'Reilly, 2021). Further research is needed to better understand how immigration to northern Sweden, Finland and Norway can be organized in forms that are sustainable and long term instead of FIFO, and how such development can be facilitated by institutions and policy. More systematic studies are needed, as to identify what is done, and by what actors (employer, region, municipality, civil society etc.) to boost attraction, recruitment and retention, as to meet with the current skills-supply shortage, in the context of the general skills-supply shortage, the green transition, the geopolitical situation, along with the risk of FIFO solutions.

Declaration of generative AI

During the preparation of this work the authors only used ChatGPT in order to improve use of language. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the published article.

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CRediT authorship contribution statement

Karolina Parding: Writing – review & editing, Writing – original draft, Funding acquisition, Formal analysis. **Emma Lundholm:** Writing – review & editing, Writing – original draft, Formal analysis. **Birgit Abelsen:** Writing – review & editing, Writing – original draft, Formal analysis. **Grete Overvåg:** Methodology.

Declaration of competing interest

We have no conflicts of interest, financial or otherwise, that could be perceived to influence my judgment, actions, or responsibilities in relation to the manuscript.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jrurstud.2026.104288.

Appendix 1

Search strategy 16.10.2023

Web of Science

TS=(rural* OR peripher* OR countryside OR municipalit* OR provinc* OR remote NEAR/3 area OR remote NEAR/3 community OR remote NEAR/3 place OR remote NEAR/3 region OR sparsely NEAR/2 populat*)

AND.

TS=(place NEAR/3 promot* OR place NEAR/3 branding OR place NEAR/3 marketing OR campaign OR strategy OR migrat* OR mobilit* OR attract* OR recruit* OR retain* OR retention OR liveability OR positive NEAR/2 image* OR image NEAR/2 build*)

AND.

TS=(workforce OR employ* OR job OR labour NEAR/2 market OR competenc* OR high* NEAR/2 educat* OR human NEAR/3 capital OR new NEAR/3 resident* OR new NEAR/3 inhabit* OR population NEAR/2 grow* OR regional NEAR/3 develop* OR rural NEAR/3 develop*)

AND.

TS=(sweden OR swedish OR norway OR norwegian OR finland OR finnish OR "Nordic countr*")

Scopus.

TITLE-ABS-KEY ((rural* OR peripher* OR "countryside" OR municipalit* OR provinc* OR (remote W/3 area*) OR (remote W/3 communit*) OR (remote W/3 place*) OR (remote W/3 region*) OR (sparsley W/2 populat*))) AND TITLE-ABS-KEY ((strategy OR campaign OR (place W/3 promot*) strategy OR (place W/3 branding) OR (place W/3 marketing) OR (positive W/2 image*) OR (image W/2 build*) OR migrat* OR mobilit* OR attract* OR recruit* OR retain* OR retention OR livability)) AND TITLE-ABS-KEY ((workforce OR employ* OR (labour W/2 market) OR (high* W/2 educat*) OR "job" OR competenc* OR (human W/3 capital) OR (new W/3 resident*) OR (new W/3 inhabit*) OR (population W/2 grow*) OR (rural W/3 develop*))) AND TITLE-ABS-KEY ((sweden OR swedish OR norway OR norwegian OR finland OR finnish OR "nordic countr*")).

Data availability

No data was used for the research described in the article.

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