

Regional impact of higher education institutions in Nordic small towns and rural areas

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Introduction



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Nordic regions and rural areas are under increasing pressure, facing complex and interconnected challenges such as climate change, demographic shifts, youth outmigration and a growing shortage of skilled workers in both public and private sectors. Education is widely recognised as a key tool for addressing these issues and plays a crucial role in supporting regional development.

However, the contribution of educational institutions to regional development varies, depending on both the regional context and the institutional characteristics, often differing significantly between regions with strong innovation systems and those that are more peripheral.

This policy brief explores how geography influences the regional development outcomes of higher education institutions (HEIs), with a particular focus on those located in rural and regional settings. It addresses the following questions:

- What role do HEIs located in small towns and rural areas play in regional development and how does this role differ from that of HEIs situated in core or metropolitan areas?
- What do "impact" and "efficiency" mean in the context of HEIs in smaller towns and rural areas and how can these concepts be effectively measured?

This policy brief draws on insights from a literature review and input gathered during the **EDYNORA webinar** held on 16 June 2025. It is aimed at policymakers, educational authorities, HEI representatives and researchers working in the field of education and regional development in the Nordic countries.

Key contributions of HEIs to regional development



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Globally, HEIs are widely regarded as engines of local economic growth, regional innovation and key actors in shaping communities, regions and societies (Johnston & Huggins, 2016; Marrocu et al., 2022). In recent decades, their role has expanded to encompass a “third mission”: actively contributing to regional development beyond teaching and research (Salomaa, 2019). This shift involves transitioning from passive knowledge providers to engaged regional partners by anticipating local needs, co-creating initiatives with stakeholders and embedding themselves in the development of their communities (Rossi & Goglio, 2020).

In Sweden, the role of higher education began receiving greater policy attention during the 1980s and 1990s, as public discourse increasingly highlighted education as a key driver of economic growth and societal progress (Blom & Nilsson, 2024). In recent years, policy discussions across the Nordic Region have shifted towards promoting social inclusion and improving access to a skilled workforce through the expansion of education. In both Denmark and Norway, national strategies aim to ensure equal access to education regardless of geographic location, while also addressing regional skills shortages by strengthening education in high-demand professions, such as healthcare and teaching, nationwide (Indenrigs- og Boligministeriet, 2021; Ministry of Local Government and Regional Development, 2023).

How geography shapes HEIs' regional development outcomes



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The role of HEIs in regional engagement is strongly shaped by context, including national policies, regional characteristics, socioeconomic conditions and cultural or historical factors (Boucher et al., 2003). These contextual elements influence the nature of external partnerships, the manner in which university leaders respond to regional needs and the strategic priorities institutions choose to pursue (Salomaa, 2019).

Geography plays an important role in shaping universities' "third mission", including societal or community engagement (Salomaa, 2019). Research indicates that rural contexts often foster stronger third mission engagement, with universities acting both as catalysts of local development and as partners working closely with communities to address their needs (Boucher et al., 2003). In such settings, HEIs frequently prioritise cooperation with local communities over global rankings, aligning their educational and research goals with regional strengths and needs and building an identity focused on supporting and serving their communities (Boucher et al., 2003; Kempton et al., 2021). However, studies also suggest that in rural areas, universities' wider societal role may become narrowly focused on providing graduates to the local labour market, rather than driving broader innovation, as is often the case in metropolitan regions (Charles, 2016).

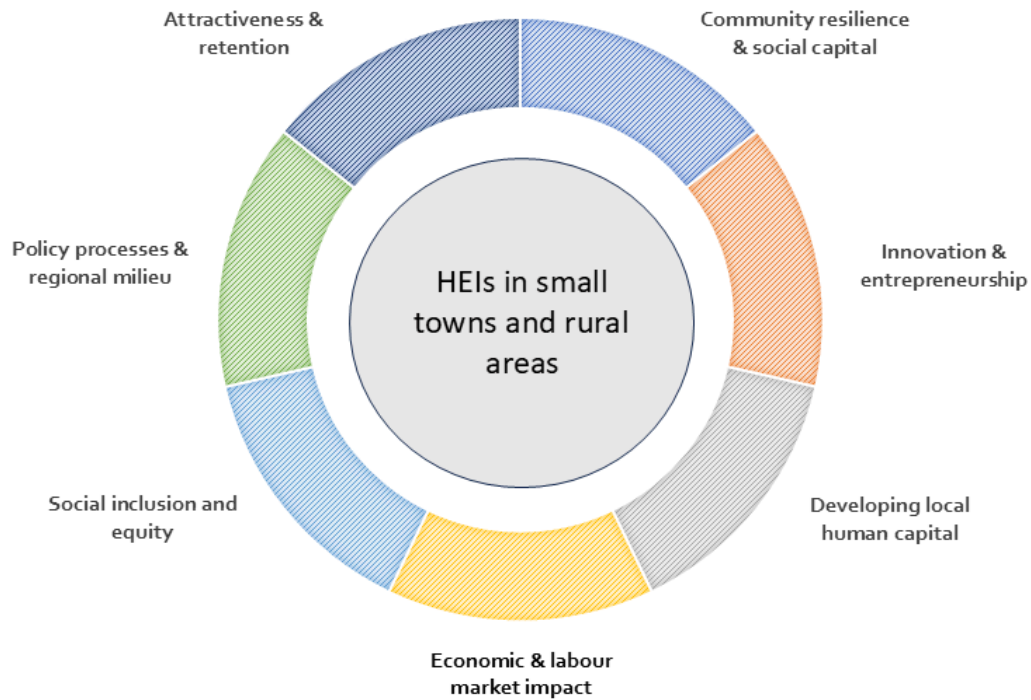
Structural constraints in rural areas further shape the outcomes of universities' societal engagement. Rural economies are often dominated by small businesses and frequently lack other knowledge institutions, limiting opportunities for knowledge-intensive development. Lower levels of human capital and limited absorptive capacity within local companies and labour markets can result in graduate mismatch and underemployment (Benneworth & Dahl Fitjar, 2019; Evers, 2019). Moreover, the demands of local companies are typically broad and challenging to fulfil when universities offer only a limited range of curricula or are narrowly specialised, making sustained collaboration with small local companies a persistent challenge.

Table 1 summarises the contributions of HEIs to regional development, while Figure 1 illustrates these contributions alongside the key contextual factors that shape how HEIs engage with their respective regions.

Table 1. Key regional impacts of HEIs in small towns and rural areas. Source: author's synthesis of literature review.

Impact	Description
Economic and labour market impact	HEIs support regional economies by training a skilled workforce, connecting employers with talent and stimulating local demand for goods, services and housing through students, staff and investment (Rossi & Goglio, 2020). Most studies show a positive link between HEIs and local GDP, employment and entrepreneurship (Andersson et al., 2004; Lindqvist et al., 2012; Marrocu et al., 2022). However, some research points to more limited impacts, underlining that outcomes are context- and time-dependent (Bonander et al., 2016; Drucker, 2016; Rodríguez-Pose & Wang, 2025).
Developing local human capital	Regional HEIs expand access to higher education and help retain graduates, thereby strengthening the local workforce (Bonander et al., 2016; Evers, 2019; Kempton et al., 2021). However, high graduate mobility means that increased enrolment does not always translate into stronger local human capital (Rodríguez-Pose & Wang, 2025).
Innovation and entrepreneurship	HEIs foster innovation through R&D collaboration, consultancy and knowledge transfer, supporting local companies and regional innovation systems (Bonander et al., 2016; Kempton et al., 2021; Pugh et al., 2018). However, this impact depends on factors such as the location and specialisation of partner industries, institutional incentives for engagement and individual researchers' motivation to engage (Benneworth & Dahl Fitjar, 2019).
Community resilience and social capital	HEIs build community resilience by promoting lifelong learning, knowledge exchange and civic engagement. Research highlights the creation of local learning communities as a crucial outcome, in which students, staff and local actors generate valuable knowledge together. Over time, these networks may strengthen local welfare and support long-term regional development (Benneworth et al., 2024).
Social inclusion and equity	HEIs reduce inequalities by widening access to education (both geographically and socially) and supporting initiatives that promote inclusion and reduce disparities between urban and peripheral regions (Rossi & Goglio, 2020).
Strategic engagement in policy processes and influence on regional milieu	HEIs can influence and shape policies and new economic initiatives through partnerships with public actors and industry. Their influence, however, may vary depending on institutional goals, governance structures and the extent to which universities, policymakers and industry partners agree on and coordinate regional priorities (Benneworth & Dahl Fitjar, 2019).
Regional attractiveness and retention	HEIs boost the cultural and social vitality of their regions, enhancing the overall attractiveness of small towns and rural areas as places to live and work. Their presence helps anchor students and professionals, counteracts depopulation and supports long-term settlement (Rodríguez-Pose & Wang, 2025).

Contextual determinants: local and regional characteristics (economic, political, geographical)



Institutional determinants: university leadership, governance and management models, individual researchers' motivation

Figure 1. Contributions of HEIs to regional development and key determinants shaping their role.

Source: Author's own elaboration.

Strengthening the role of higher education in advancing regional development

EDYNORA webinar highlights



Photo: Magnus Liam Karlsson / imagebank.sweden.se

The EDYNORA webinar on 16 June 2025 explored perspectives on higher education in small towns and rural areas in the Nordic Region. Speakers included representatives from the research and academic sector, regional development actors and the business community. One of the key themes discussed was how to strengthen the role of higher education in advancing regional development. Key takeaways included the following:

"There is a limited correlation between the research outputs of HEIs and local economic impact."

(Research actor)

At the webinar, one of the authors of a recent study on the role of Swedish HEIs in economic development emphasised that expanding research capacity does not automatically lead to local economic growth. The study found that high-end research often contributes little to local skills development and may even drive brain drain, while weak university–business collaboration further limits knowledge spillovers and the practical application of research findings. The authors argue that HEIs should strive for an improved balance between research and teaching to support regional human capital development more effectively and to build more robust partnerships with industry (Rodríguez-Pose & Wang, 2025). The speaker also underlined the importance of making better use of data to inform evidence-based decisions.

"The connection between students, programmes, R&D and private companies must grow – we need a new kind of triple helix."

(Regional development actor)

Proximity between local companies and regional HEIs brings clear advantages, including trust, shared goals and a mutual interest in building a more prosperous region. However, in complex fields like robotisation, automation and digitalisation, local HEIs may lack the expertise needed to fully meet all demands of a diverse industry. In such cases, stronger collaboration with HEIs beyond the region becomes essential to address companies' needs and drive innovation.

"The social inequality dimension often receives less attention, with much of the focus placed on economic impact."

(Research actor)

This reflects a common tendency in policy and practice to prioritise the economic role of HEIs while overlooking their potential to reduce social inequalities. A speaker from the Mapineq project underlined the crucial role of rural and regional HEIs in tackling inequality and strengthening territorial cohesion. Research shows that students from lower socioeconomic backgrounds often have more limited education choices and a greater tendency to study locally, making regional HEIs especially important. When designing local programmes, it is vital to balance the needs of the private sector with the aspirations and realities of local students, ensuring that higher education supports both economic and social development.

"Each place needs to define its specific target group and build on its own strengths and programmes – particularly in smaller or more rural contexts."

(University management)

The University Centre of the Westfjords (UW) in Ísafjörður, Iceland, was established in 2005 on the initiative of regional politicians, with the explicit aim of fostering regional development. From the outset, the emphasis was on on-site education rather than distance learning. Given its small local catchment – limited by both geography and language – UW developed niche master's programmes aligned with local strengths but designed to attract international students, who now make up 90% of enrolment. UW's success is attributed to four key factors: place (geography and natural assets), programmes (locally grounded yet attractive to international students), politicians (strong political support and funding) and people (a welcoming local community). One of UW's key contributions has been in strengthening local identity and reputation – fostering pride and reshaping regional narratives through academic outputs, job advertisements and student stories.

"The role of career guidance needs to be included in research and discussions. Career guidance relates to many of the identified challenges: outreach, recruitment and finding local employment opportunities."

(A comment from the audience)

Career guidance plays a crucial role in helping individuals make decisions about their future and can influence whether rural young people choose to stay or leave. Traditional models focused on "career progression" and ideal job matches often fail to reflect rural labour markets, where opportunities tend to be more limited and fragmented (Alexander and Fuqua, 2024). In these contexts, the very concept of "career" and career guidance must be re-envisioned in a more place-conscious way: moving beyond narrow economic matching, valuing informal and locally gained knowledge and connecting to broader life aspirations and the idea of a good life (Alexander & Fuqua, 2024). Such services can strengthen student decision-making about educational choices, career pathways and desired spatial futures, facilitating pathways for staying, leaving and returning and supporting the functioning of both local and national higher education provision (Alexander, 2024).

Measuring impact and efficiency of HEIs in small towns and rural areas



Photo: Yadid Levy / norden.org

Given their small scale, limited range of programmes, constrained local capacity to absorb new knowledge or innovations and often distinct missions (Benneworth & Dahl Fitjar, 2019), a key question for rural or regional HEIs is what constitutes success and how their impact and performance should be measured.

For such institutions, traditional evaluation models focused on research output, international rankings or student numbers are often of limited relevance. Their impact typically extends beyond narrow economic indicators such as multipliers or technology spillovers, which tend to be modest in rural contexts (Charles, 2016).

Instead, contributions are often non-standardised, qualitative and long-term, making them difficult to capture and quantify using conventional metrics like spin-off companies or patents. The links between university activities and community outcomes are often indirect and complex. Moreover, they are largely overlooked or undervalued in international rankings, which continue to prioritise research excellence and global visibility over regional relevance (Taieb, 2024).

Regional campuses frequently generate value by building social infrastructure, which means enhancing the quality of life, community resilience and regional identity, without necessarily producing immediate or measurable economic growth. Scholars therefore advocate for a shift away from standardised, codifiable indicators towards approaches that capture relational dynamics and social processes between academics, students and local practitioners (Benneworth et al., 2024; Taieb, 2024).

The third mission framework provides a valuable lens for evaluating these broader contributions, with its emphasis on community engagement, regional development and knowledge transfer. Nevertheless, measuring third mission activities such as societal impact and territorial engagement remains challenging (Maral & Çetin, 2024; Marrocu et al., 2022).

A systematic literature review (2000–2021) of third mission evaluation in European universities found no commonly accepted methodology. Despite extensive research, there is still a lack of standardised indicators and coherent evaluation frameworks, leaving existing approaches fragmented and challenging to apply across diverse institutional and regional contexts (Taieb, 2024).

Recommendations on how to foster rural HEIs' role in advancing regional development

To policy makers, educational authorities and HEIs



Photo: Magnus Liam Karlsson / imagebank.sweden.se

Recognise HEIs as strategic actors in rural and regional development.

The contributions of rural and regional HEIs should be acknowledged not only for their economic impact and research excellence, but also for their role in fostering social inclusion and building social infrastructure – enhancing quality of life, strengthening community resilience and regional identity. This recognition should be embedded in future regional and rural development policies in the Nordic countries.

Redefine efficiency and success.

Evaluation of rural and regional HEIs should move beyond conventional metrics to reflect their broader societal and territorial contributions. Approaches are needed that capture relational dynamics and social processes between academics, students and local practitioners. While some progress has been made, the absence of a commonly accepted methodology remains a challenge. Developing standardised qualitative indicators and coherent evaluation frameworks, supported by further methodological research, is therefore essential.

Make better use of data for evidence-based policymaking.

Data on future skills needs, graduate mobility and retention and the aspirations of local young people should be systematically collected and used to inform strategic decisions about HEIs. Demonstrating societal impact through such data can strengthen partnerships and accountability while also informing the development of more tailored and evidence-based policies.

Foster stronger and more robust university–business partnerships.

This can be achieved by building trust and co-developing programmes with local stakeholders, while also connecting to external HEIs to access specialised expertise in advanced fields such as automation and robotisation.

Re-envision career guidance in a place-conscious way.

Such services can strengthen student decision-making about educational choices, career pathways and desired spatial futures, facilitating pathways for staying, leaving and returning. Guidance should move beyond narrow economic job matching, valuing informal and locally gained knowledge and aligning with young people's broader life aspirations.

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