

Nuancing Counterurbanisation: A Grid-Level Exploration of Post-Pandemic Migration and Remote Work in Sweden

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Extended abstract

Topic & theoretical focus

As far back as the 1980s, scholars were writing about the potential for information and communications technology (ICT) to facilitate decentralisation and de-urbanisation by ‘shift(ing) literally millions of jobs out of the factories and offices... and right back to where they came from originally: the home’ (Toffler 1981, p. 204, cited in Läßle, 2001). Though such prophecies have largely gone unrealised (Graham, 2004; Kourtit, 2016; Morgan, 2004; Scott, 2011), the work-from-home measures necessitated by the COVID-19 pandemic have brought this discussion back to the forefront. While little support has been found for a large-scale ‘urban exodus’ (Rowe et al., 2023; Stawarz et al., 2022; Vogiazides & Kawalerowicz, 2023), several studies have pointed to a link between remote work and an increased tendency to either move, or report the intention to move, further from major cities since the onset of the pandemic (Clarke, 2025; Correa, 2025; Eliasson, 2025; Incaltarau et al., 2024; Jansen et al., 2024; Knuepling et al., 2025; Kotsubo & Nakaya, 2024; Tønnessen, 2021; Wong et al., 2025).

Though still an emerging literature, the evidence so far suggests that increased acceptance of remote work since the pandemic may be an important consideration for counterurbanisation scholarship going forward. Several studies have found that remote workers are more likely than non-remote workers to have increased the length of their commute since the onset of the pandemic (Clarke, 2025; Eliasson, 2024; Nilsson et al., 2024). While counterurbanisation is not necessarily the primary concern of these studies, effects are largely driven by those employed in metropolitan centres moving further from their workplaces (Eliasson, 2024; Nilsson et al., 2024). Studies more directly concerned with outmigration from large urban areas confirm this, finding individuals with the potential for remote work to be more likely to move out than those without such potential (Clarke, 2025; Correa, 2025; Eliasson, 2025; Knuepling et al., 2025; Silva et al., 2024). Findings regarding the destinations of these migrants are somewhat varied. In both Sweden and Germany scholars have found that, while the greatest number of migrants head for the suburbs, the largest proportional increases in in-migration are found in more rural localities (Eliasson, 2025; Knuepling et al., 2025). Other studies have found the increased propensity of remote-workers to migrate to more rural areas to be limited to the pandemic period, while areas in reach of large cities retained increased attractiveness even once the pandemic subsided (Silva et al., 2024).

While the studies above provide a useful starting point, their ability to tap in to more fine-grained changes is hampered somewhat by a reliance on municipal-level urban-rural classification. Further, most studies limit their focus to only the largest cities, meaning we have little knowledge of the ways in which increased remote work has affected counter-urban tendencies in more peripheral regions. This paper seeks to address these limitations in two ways. First, the paper operationalises urbanity/rurality on an extremely fine scale, using a grid-level (1x1 km) urban-rural typology (described further under Data & methods). The typology includes seven classes, allowing for a highly nuanced understanding of both urban and rural settlements (Stjernberg et al., 2024). Second, the paper develops a conceptual understanding of counterurbanisation that is grounded in the extensive pre-pandemic literature on the topic. Without presuming to address all studies in the field (for such comprehensive accounts see Gkartzios & Halfacree, 2023; Halfacree, 2008; Mitchell, 2004), the paper draws on the existing, primarily European, literature to highlight three framings of the spatial dimension of counterurbanisation.

The first, and perhaps most common spatial frame in counterurbanisation research, is the classic, somewhat binary, notion of migration from a large city to a rural or peripheral area. This perspective implies a ‘clean break’ between urban and rural life, and research in this space is primarily concerned with understanding the diverse motivations, drivers and experiences of counter-urban migration (Barcus & Halfacree, 2018; Eimermann et al., 2020; Gkartzios, 2013; Halfacree, 2008; Nuga et al., 2024). The second spatial frame introduces greater nuance by acknowledging the importance of so-called ‘intermediate’ space. This perspective emerges somewhat as a critique of the first, with scholars arguing for the need to go beyond fixed and absolute understandings of urban and rural space (Grimsrud, 2011). It incorporates research which deals with so called ‘suburbanisation’ or ‘peri-urbanisation’ (Fisher, 2003; Jetzkowitz et al., 2007) as well as that which considers migrations between larger metropolitan areas and smaller cities (Krumins & Berzins, 2025; Sandow & Lundholm, 2019, 2023). The third and final framing relates to the de-concentration which results from migration between areas which are rural to varying degrees. This perspective is perhaps most notable for its absence, with relatively few studies considering migration between rural areas through a counterurbanisation lens (for exceptions, see, e.g., Grimsrud, 2011; Søder & Nielsen, 2025; Stockdale, 2016). Improved knowledge in this area has the potential to be a valuable complement to the small but growing body of literature exploring urbanisation within the periphery (Bjarnason et al., 2021; Carson et al., 2022).

Importantly, the spatial frames described above are not mutually exclusive but complementary, coming together to provide a nuanced and complex picture of counterurbanisation in a given geographical context at a particular moment in time. In this case, the paper seeks to combine these spatial perspectives in order to better understand the relationship between remote work and counterurbanisation in Sweden in the years following the onset of the COVID-19 pandemic. The specific questions addressed in the paper include:

- 1) What changes can be observed in counter-urban migration patterns in Sweden since the onset of the COVID-19 pandemic, compared to the pre-pandemic period?
- 2) What differences in counter-urban migration patterns can be observed between individuals with the theoretical potential for remote work and those without such potential; and, to what extent is the pandemic a factor in explaining these differences?
- 3) What can these results contribute to our understanding of counterurbanisation from a spatial perspective?

Data & methods

The study includes all individuals in Sweden aged 26-65 years who were employed or self-employed between 2015-2023. Migrations are identified annually using the Swedish Total Population Register (*Registret över totalbefolkningen*) and geolocated using the Geography database (*Geografidatabasen*), with all registered migrations included, regardless of the distance moved. Counter-urban migrations are defined as an individual¹ migration down the urban hierarchy (Halfacree, 2008; Nedomysl & Amcoff, 2011; Sandow & Lundholm, 2019, 2023), are identified using the Nordic urban-rural typology introduced in the previous section (Stjernberg et al., 2024, Figure 1). This typology divides the territory into 1x1 km grids, classifying each square into one of seven classes according to data on population, density of the built environment, land-use intensity, and commuting (Östring, 2022; Stjernberg et al., 2024). The typology is connected to the geolocated migration data and each migration event is given two urban-rural classifications, one according to its origin and one according to its destination. The move is considered a counter-urban migration if the grid cell in which the migration originated is higher in the urban-rural hierarchy than the grid cell of the migrant destination.

¹ At this stage the paper focuses on individuals, meaning that a couple moving together are counted twice. I am currently looking in to ways to address this and it will likely be resolved before the conference.

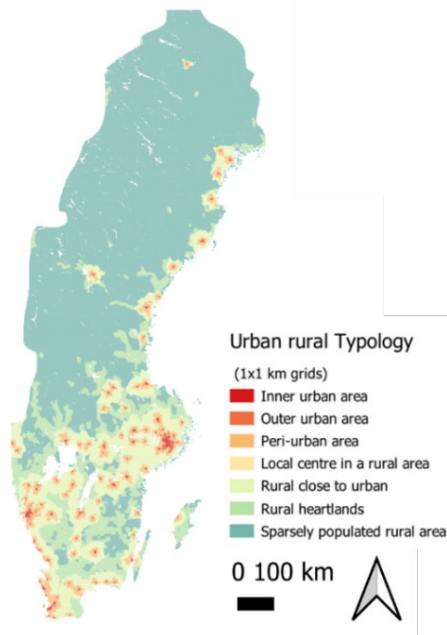


Figure 1. Nordic urban-rural typology.
Data source: Stjernberg et al (2024)

Though the seven classes within the typology are useful in unpacking nuance within migration flows, the results may be difficult to interpret due to the large number of potential origin/destination combinations formed (21 possible combinations). Figure 2 provides an example of this complexity, using migration data for Sweden from 2020-2023.

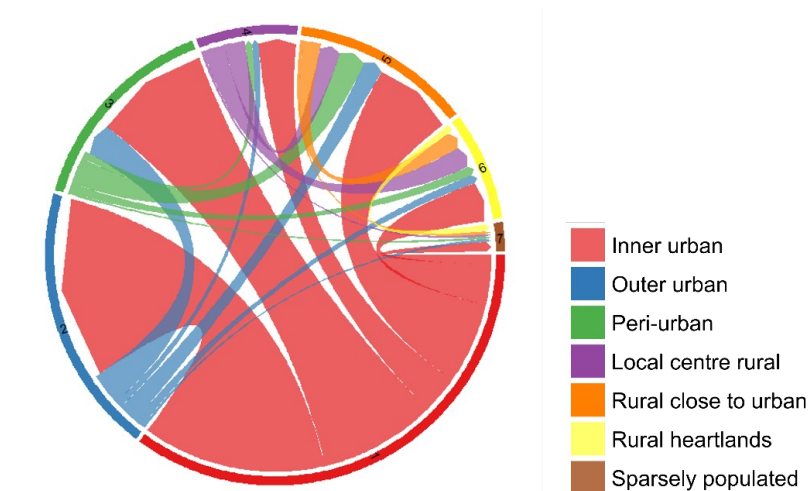


Figure 2. Counter-urban migrations in Sweden 2020-2023. Source: Own calculations based on data from Statistics Sweden.

In order to reduce this complexity, an analytical framework is developed using the three spatial frames identified in the review of the pre-pandemic counterurbanisation literature, summarised in the previous section. This framework is shown in Figure 3, and includes four, spatially-derived, conceptualisations of counterurbanisation. The first of these, *escape to the countryside*, represents the ‘clean break’ perspective on counterurbanisation, and includes all migrants who move from within an urban agglomeration to either a rural centre, rural heartlands, or a sparsely populated rural area. The next two conceptualisations, *suburbanising* and *urban expansion*, aim to capture migration between the intermediate spaces that are less clearly identifiable as definitively urban or definitively rural. The first of these, *suburbanising*, captures moves to less densely populated areas within the same urban agglomeration; while the second, *urban expansion*, encompasses migration to areas beyond, yet within reach, of an urban agglomeration. The final conceptualisation, *rural to rural*, captures all moves down

the hierarchy of rural spaces within the typology, with rural close to urban considered the most urbanised among such spaces and sparsely populated rural areas considered the most rural.

		destination						
		IU	OU	PU	RctU	LCiR	RH	SPA
origin	Inner urban (IU)		Suburbanising		Urban expansion	Escape to the countryside		
	Outer urban (OU)							
	Peri urban (PU)							
	Rural close to urban (RctU)							
	Local centre in rural area (LCiR)						Rural to rural	
	Rural heartlands (RH)							
	Sparsely populated rural area (SPA)							

Figure 3. Spatial conceptualisations of counter-urban migration used in the study. Source: Developed by the author based on the Nordic urban-rural typology

The distinction between remote workers and non-remote workers is made using the framework developed by Dingel and Neiman (2020), which is applied to the Swedish Standard Classification of Occupations (SSYK 2012). This framework assesses the theoretical potential for remote work in different occupations based on a series of measures, and has been found to correlate well with the actual proportions of the Swedish population working from home during the pandemic (Eliasson, 2023; Randall & Norlén, 2022). Other independent variables include: gender, age, income, household composition, place of birth (born in Sweden/born outside Sweden), and place of residence at 5 years of age² (urban/rural).

Expected results

Consistent with previous studies in the Swedish context, it is anticipated that the results will demonstrate that those with the potential for remote work were more likely undertake a counter-urban migration following the onset of the pandemic (see, e.g., Correa, 2025; Eliasson, 2025). Where this study is expected to provide a novel contribution is in shedding light on the precise nature of these moves. This includes identifying subtle changes in living preference within a single urban agglomeration and understanding the dynamics related to migration between areas of varying degrees of rurality. This knowledge has the potential to be of great value to policy makers in assessing the longer-term implications of increased remote work on the urban-rural structure. The paper is also expected to make a contribution to long-standing discussions about the nature and extent of counterurbanisation in the Global North, particularly as concerns the spatial dimension.

² Data only available for those born in Sweden.

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