GRANULAR

RURAL RESILIENCE FROM A GENDER PERSPECTIVE

D 4.2

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D4.2 A GENDER PERSPECTIVE ON RURAL RESILIENCE

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HISTORY OF CHANGES

VERSION	DATE	CHANGES
v1 D4.2	30/04/2025	Initial version submitted
v2 D4.2	22/01/2026	*Changes made to the Section 5.4.5 "Methods" to provide a more explicit and formal specification of the empirical models:* • Page 34: Section 5.4.5 "Methods" updated with a presentation of the logistic regression models using fully specified equations with clear indexing, explicit dummy-variable coding for the degree of urbanization, and separate interaction terms between gender and each urbanization category. We also clarified reference categories, defined all model components, and distinguished between the probability and log-odds formulations of the model. These additions are intended to improve transparency and facilitate interpretation for technically oriented readers, while leaving the substantive modeling strategy unchanged. *Revision made to all figures to ensure consistent formatting, including standardized axis labels and color schemes, to improve readability and facilitate comparison of results across figures. In addition, we also added a note to each figure clarifying which models the figures are based on and what the reference line represents.* • Changes made to Figure 2 (added title - page 23), Figure 3 (page 37), Figure 4 (page 38), Figure 5 (page 39), Figure 6 (page 40), Figure 7 (page 42), Figure 8 (page 43), Figure 9 (page 44), Figure 10 (page 46), Figure 11 (page 47), and Figure 12 (page 48) *Addition of several references to sister tasks in WP4 and other WPs of GRANULAR project in response in response to reviewers' comment, to strengthen cross-referencing with other WP4 indicator deliverables:* • Page 10: Reference to Task 4.1 added to Section 2.2 "Resilience and time" – second paragraph • Page 11: Reference to Task 2.2 added to Section 2.2 "Resilience and time" – sixth paragraph • Page 16: Reference to Task 4.4 added to Section 3.1.1 "Alternative perspectives on regional (economic) resilience" – first paragraph • Page 20: Reference to Task 4.3 and Task 4.5 added to Section 3.2.1 "Economic resilience in rural areas" – first and fourth paragraph • Page 24: Reference to Task 4.3 added to Section 3.2.2 "Community resilience and the role of farming in rural Europe" – sixth paragraph

Acronyms

AROPE	At-Risk-of-Poverty-or-social-Exclusion
COEFFY	Yearly weighting factor
DEGURBA	Degree of urbanization
EFTA	European Free Trade Association
ESF+	European Social Fund Plus
EU	European Union
EU-LFS	EU Labour Force Survey
EVS	European Values Survey
FTPT	Full-time / Part-time distinction
GDP	Gross Domestic Product
ILO	International Labor Organization
ISCED	International Standard Classification of Education
LAU	Local Administrative Unit
LS3	Local Smart Specialization Strategies
LTVRA	Long Term Vision for Rural Areas
NEET	Not in Employment, Education, or Training
SME	Small and Medium Enterprise
S3	Smart Specialization Strategies
UN	United Nations

Executive summary

The exploration of ‘rural resilience’ as a concept reveals its relatively recent emergence, typically characterized by a blend of restructuring and resistance, incorporating both change and permanence. This multifaceted concept manifests at various levels: place, community, individual, and over time. Despite a wealth of information, a uniform conceptualization of rural resilience remains elusive in the reviewed literature. Academic and policy discussions suggest inherent interconnections between economic, social, and ecological perspectives, aligning with the sustainability triangle. Contemporary discussions increasingly recognize rural resilience as a context-specific, evolving process of future-proofing that integrates economic, environmental, and social sustainability at the individual, community, and regional levels—particularly under conditions of uncertainty. This broader perspective highlights the importance of incorporating social factors into resilience frameworks.

By adopting a critical perspective on the concept of rural resilience, this report aims to raise awareness of the normative values associated with it. Recognizing that nuanced understanding is essential for consistently applying the concept across Europe’s uneven and heterogeneous rural areas, we propose a working definition of rural resilience as *contextual and spatially bound evolutionary process of future proofing that accounts for the interlinkages between the economic, environmental, and societal sustainability of the place, the community and the individual in a context of uncertainty and unpredictability*. Adopting a systems’ perspective, rural resilience is operationalized through complex, non-linear processes. Furthermore, this definition frames resilience as a context-dependent notion in which time, space, and perceptions all play a crucial role in determining what is considered ’resilient’. Finally, the definition explicitly acknowledges that resilience within one domain can significantly impact other domains.

Acknowledging these interdependencies, we aim to incorporate gender as an essential concept into our understanding of socio-demographic and socio-economic resilience in rural areas, and by extension, rural resilience. Our work focuses on uncovering the nature of gender and rurality gaps in employment outcomes across 27 European countries, providing insights into the intersection of gender, rurality, and welfare state typologies. Drawing on data from the European Labor Force Survey (EU-LFS) for 2013, 2018, and 2023, we investigate changes over time in labor markets' rurality and gender gaps, analyzing trends between 2013 and 2023. The work also explores cross-country variations by examining welfare typologies across Europe. Our findings reveal persistent labor market disparities faced by rural women, highlighting critical intersections between gender, urbanization, and rural labor markets across the EU. The study's findings emphasize three key dimensions corresponding to each of the outcomes analyzed:

- First, the analysis reveals persistent gender gaps in employment across all examined contexts. While the average rural-urban employment gap among women appears negligible at the aggregate level, substantial cross-country variation emerges. In 11 out of the 27 countries studied, rural women face compounded disadvantages compared to their urban counterparts. However, this pattern is not uniform: in Continental and Nordic countries, rural women often exhibit higher employment probabilities than those in urban areas, while in Southern and Eastern Europe they remain substantially less likely to be employed. Notably, temporal trends point to a gradual narrowing of rural-urban gaps, particularly in Southern Europe, where rural women have seen modest but consistent employment growth. These findings suggest a more differentiated landscape than commonly portrayed in literature, highlighting both persistent barriers and emerging improvements in rural women’s employment.
- Second, the findings on part-time employment reveal a pronounced disparity in employment patterns. Women in rural areas of Continental and Nordic countries are significantly more likely to work part-time compared to their urban counterparts, with large gender gaps in part-time employment probabilities. This is especially evident in countries such as the Netherlands and Austria, where cultural norms and welfare policies appear to reinforce gendered labor market participation. This suggests that in urban settings partners more equally share both paid and unpaid labor, contrasting with the dominant "one-and-a-half model" more predominant in rural areas. By contrast, in Southern

and Eastern Europe rurality plays a less significant role in determining part-time employment, with both urban and rural women showing similar probabilities of part-time work, indicating that the prevalence of part-time employment is generally lower in Southern European countries.

- Third, caregiving responsibilities emerge as a critical factor influencing employment patterns in most Continental countries. Women in rural areas of these countries report significant employment constraints due to caregiving responsibilities, with larger rurality and gender gaps compared to urban areas. This contrasts with findings from Southern and Eastern Europe, where caregiving responsibilities show minimal variation by rurality and gender, suggesting that other structural and cultural factors may drive the lower employment probabilities of rural women in these regions.

These results underscore the significance of welfare state typologies in shaping labor force outcomes. In Continental welfare regimes, overall female employment levels are higher for women in rural areas compared to their urban counterparts, while part-time work is more common among rural women. This might indicate that these regimes tend to reinforce traditional gender roles through policies and societal norms that encourage part-time employment, with women's employment often constrained by caregiving responsibilities. Nordic countries, while more egalitarian, also show rural-urban distinctions in part-time employment, though this is less pronounced than in Continental countries. In Nordic countries, consistent with the principles of the universal welfare state and the widespread availability of childcare services, the higher prevalence of part-time employment among rural women does not seem to stem from caregiving obligations. In Southern and Eastern Europe, rural disadvantages are more likely structural. Limited job opportunities, which might relate to less service-oriented and more agrarian local economies alongside traditional gender norms, appear to play a more significant role in shaping employment outcomes than caregiving responsibilities.

The study’s findings demonstrate that the intersection of gender and rurality generates distinct patterns of disadvantage, with significant variations across European countries. These patterns reflect differences in welfare state policies and the broader socio-cultural and economic contexts within which rural and urban women navigate the labor market. Consequently, addressing gender disparities offers a key pathway to enhancing rural resilience. Integrating gender-sensitive measures into policy frameworks is not simply a corrective to existing inequalities, but a strategic imperative for fostering rural communities’ long-term adaptive capacities. The report concludes by highlighting the importance of an intersectional and place-sensitive approach in developing policies that promote gender-inclusive and sustainable rural development.

1. Introduction

EU rural areas are facing challenges due to aging populations and outmigration, particularly among young educated women (EC, 2021a; Eurofound, 2023). Outmigration of working-age residents undermines the local demographics and exacerbates labor shortages in key sectors. Such a process can trigger a self-reinforcing cycle of decline, further weakening rural resilience, understood as rural areas' capacity to 'futureproof'. If outmigration of younger individuals, particularly women, is sustained over long periods of time, the collapse of local businesses, services, and community institutions is a likely outcome, as social, economic, and institutional foundations are compromised.

In addition to their role in maintaining population replacement levels, young women play a crucial role in maintaining rural communities and ensuring local institutions function. Rural women contribute to diversify household livelihoods by engaging in employment and entrepreneurial activity, and to leverage social capital by providing social support and organizing community life. Consequently, as young rural women emigrate, the burden of care work and community leadership increasingly shifts onto those who remain, placing further strain on local resources and resilience.

Labor market integration of women is hence crucial for preserving rural communities' social and economic resilience. Rural women need access to good quality jobs, opportunities for entrepreneurship and self-employment, and community leadership that empower them and provide a sense of purpose. When empowered, rural women can enhance their individual and household wellbeing, strengthen the local economy, and make rural living an attractive option compared to urban centers. This requires balancing work and family responsibilities with availability of community-based support systems. The European Long Term Vision for Rural Areas specifically recognizes the importance of rural women's roles and seeks to incentivize their participation in labor markets, entrepreneurship, decision-making, and work-life balance services (EC, 2021b).

Against this framework, the specific objectives of the study are twofold: First, the report aims to shed light on the concept of resilience. Building on a comprehensive review of academic literature and policy documents, the report introduces and critically discusses the different applications and operationalizations of the notion of resilience in social sciences and related disciplines, with a focus on their implications for rural areas. Based on this review, the report provides a working definition of rural resilience that informs the analytical work. The second and most relevant objective of the study is to critically examine the concept of rural resilience through a socio-economic lens, with a specific focus on how gender dynamics intersect with rurality to shape labor market outcomes across Europe. By integrating theoretical insights from resilience literature with an empirical analysis of microdata from the European Union Labour Force Survey (EU-LFS), this strand seeks to expand current understandings of rural resilience beyond economic indicators, to include social and institutional dimensions. Through this lens, the report contributes to a more comprehensive and equity-focused framework for understanding and operationalizing rural resilience across diverse European contexts.

The report is organized as follows: Sections 2–3 provide a comprehensive review of the concept of rural resilience based on relevant academic literature and selected policy documents. Based on the reviewed literature, Section 4 traces out a working definition of rural resilience, and from there identify key perspectives that may help operationalize the concept in a rural setting. Section 5 builds on this definition to explore gender differences in the labor market outcomes by rurality. Section 6 presents some general conclusions stemming from the empirical analysis. The two Annexes include complementary materials about the bibliometric searches performed in this work (Annex 1) and additional figures, descriptive data, and model estimates corresponding to the empirical work (Annex 2).

2. Resilience in social sciences

2.1. Scoping resilience

The term *resilience,* and its Latin root *resilire*, refers to the ability of rebounding: the elasticity of systems to recover after shocks or disturbances (S. Davoudi et al., 2012; R. Martin, 2012). The concept has been widely used in the natural sciences, as well as in medicine and psychology for decades (Rocha et al., 2023). The notion of resilience has been developed in different contexts and has evolved over time, as it was applied in different fields and disciplines. In many instances, resilience is defined as a system's coping capacities or "capacities to adapt" (Martin and Sunley, 2015), inferring the ability to continue operating and developing systems despite disruptions. As McManus et al (2012) write with regards to the understanding resilience in a social and economic context, "resilience is understood as the ability to embrace change, with a capability to adapt seamlessly to largely exogenous events (such as technological change) in a form termed stable adaptation" (McManus et al., 2012, p. 21). Departing from this general understanding of resilience as a 'capacity' or an 'ability', for many scholars the notion of resilience is a **'**contextualized idea' in many ways, which implies that 'recovery' and 'survival' sits at the heart of its discourse (Hu and Hassink, 2015). For others, resilience serves first and foremost as a metaphor (Pendall et al., 2010). In theory, resilience is described as an "ideal end goal" indicating a point in the future where all parameters align. However, as Roberts, Anderson, Skerratt, & Farrington (2017) write, "no community is fully resilient or fully vulnerable but displays aspects of both, and these are temporally and spatially changeable" (Roberts et al., 2017, p. 373).

This begs the question of what resilience inherently is and what it is not and how it can be measured. Should resilience only be understood as a quality of systems in place that can resist and recover from (often exogenously driven) shocks, or is a resilient system one that comprises a set of qualities that enables change over time, in an evolutionary way? This discussion leads to the differentiation between 'resilience' and 'robustness'. According to Martin and Sunley (2015), 'robustness' is often interpreted as an unbendable quality, a characteristic that remains unaffected regardless of shocks and disturbances. It suggests stability and resistance, but also the ability to adapt certain parts of the structure it has created, to retain core functionalities", and continue: "This notion generally refers to a situation in which there are identical or similar components or subsystems (modules) which can replace each other when one fails (Martin and Sunley, 2015, p. 7). Resilience is what allows the structure within which these components to be replaced, without systems failure. Considering robustness, the focus is not on systems per se, but on the maintenance of key functions in these systems. Resilience and robustness are not mutually exclusive, however, but subsumes aspects of one another: robustness allows for some change to retain key functions, and resilience concerns the plasticity of the structure within which robustness operates. Moreover, "it is not a simple dichotomy between continuity (no change) and (complete) change" (Martin and Sunley, 2015, p. 10). In their study on the applications of rural community resilience in Scotland, Currie et al. (2023) delve into this issue by suggesting that resilience is a dual discourse centered upon 'everyday resilience' and 'emergency resilience', and that these have emerged because of neo-liberal agendas to work with "short term damage reduction to the detriment of long-term adaptive capacities" (Currie et al., 2023, p. 199). Both should be recognized and embraced as part of resilience studies rather than focusing solely on finding one definition.

In general terms, the literature emphasizes that resilience should be considered at the very least as a 'process' or a 'multifaceted process' that is not static or singular (Martin and Sunley, 2015, 2015). Nor does it have fixed characteristics. The process of resilience, according to Roberts et al (2017), occurs in different contexts, culturally and politically. Moreover, the addition of prefixes, such as 'regional', 'rural', or 'community' creates a new notion and ideas of resilience altogether, which in turn sets out specific ideas of these processes. How time and space is treated and constructed, is one of the key divides among resilience scholars as both are constructing regions and manifested these based in "human action and social relation", while also being in an evolving situation of transitions (Christopherson et al., 2010, p. 4).

2.2. Resilience and time

Overall, two main perspectives have emerged, according to whom the time dimension was embedded in the narrative:

Equilibrium resilience, also known as ***engineering resilience***, interprets resilience in terms of its pre-shock state, without considering reform or transformation in response to crises. Resilience has in fact gained a lot of traction lately due to the enhanced contemporary notion of uncertainty and insecurity, in which the notion is conceptualized as a strategic approach to scope solutions to predict, solve and adapt to uncertainty. According to Christopherson et al. (2010), a growing sense of risk felt in connection to the economic situation, the environment and the political climate, and is the reasons for the conceptual popularity of the concept. At the time, Christopherson and colleagues (2010) also argued that the speed of globalization and its impact on localities and regions was increasingly interwoven. Such a sense of uncertainty and risk remains at time of writing (early 2025), and in many ways a perceived sense of vulnerability has increased in Western liberal democracies, as regions and localities in those areas are exposed to increasing uncertainties, spanning from economic to security concerns. What was once understood as external processes and factors, are today increasingly part of the general make up of regions and places. This begs an interrogation into the role of such 'human actions' and 'social relations', but also the way shocks and disturbances are interpreted: The story of the shock or disturbance, and the causes for this, matter for whether or not 'successful adaptation' or resilience can be measured (Christopherson et al., 2010).

The literature emphasizes that region's capacity to react and adapt to shocks or even slow burns/long-term stressors such as depopulation or effects of climate change are important factors that can test the ability of regions to embrace change, often looking at the 'sensitivity' and 'vulnerability' of the area to underlying processes (Simmie and Martin, 2010). Task 4.1 in the GRANULAR project operationalized this perspective from the climate change mitigation angle. Deliverable 4.1 presents a comprehensive framework to guide rural communities towards climate neutrality, understood as a condition for rural resilience. The framework integrates objective indicators, policy measures and actionable strategic recommendations to support local decision-making and track progress towards climate neutrality over time (Damari et al., 2025). In this vein, Hassink's suggestions to think about policy measures that enable regional economic adaptation to transitions—using a 'learning region' as a policy model (2010, p. 46).

However, there are some reservations towards extending resilience to encompass such slow burns. Martin and Sunley (2015) warn about a risk that resilience is conflated with adaptive growth measures to ongoing long run changes, such as the natural continuation and evolving nature of regional economic growth and development. As they write, "…the danger is that the notion of resilience loses its distinctive meaning and becomes indistinguishable from more general processes of ongoing regional economic change (such as slow relative decline or accelerating growth)" (Martin and Sunley, 2015, pp. 14–15). Some scholars even reject the value of the notion of resilience (Hanley, 1998; Simmie and Martin, 2010) or indeed the notion of 'regional resilience' outright, as it too easily leads to confusion about the nature of 'regional change' due to the lack of acknowledgement of the *longue durée* that happens throughout regional adaptation—which by definition is a long-term process (Hassink, 2010).

Nonetheless, it is important to question the desire to return to a 'normal state' when such state was incapacitated to deal with shocks and crises (Scott, 2013). In this way, the notion of equilibrium resilience overlooks distributional and normative concerns, favoring the reinforcement of existing power structures and relationships, and does not consider the evolutionary state of human affairs. Moreover, the 'bounce-back' approach that is promoted by equilibrium resilience tends to depoliticize and normalize economic crises, presenting them as inevitable natural cycles, when these are shaped by human behaviors, institutions, rules, and ideologies, which are dynamic and not static (McManus et al., 2012; Scott, 2013). According to Martin and Sunley (2015), returning to 'normal' is impossible, as "to our minds what constitutes 'normality' is […] problematized […] by the concept of resilience" (Martin and Sunley, 2015, p. 10). 'Normality' cannot be presumed or imposed. As Davoudi and Porter (2012) wrote: "Why would we want to return to 'normal' when what has come to be normalized (over inflated housing markets, predatory lending practices, gross wealth disparities) is so absolutely dysfunctional?" (S. Davoudi et al., 2012, p. 332). Hassink (2010) also shares this skepticism towards both equilibrium thinking and multi-equilibrium thinking when it comes to regional

economic development—particularly in relation to path dependency. The concept of equilibrium, when discussing path dependence and 'lock-in', is in conflict with the principles of evolutionary economics, which stress the dynamic and ever-changing nature of economic systems, the inevitability of change, and the importance of novelty in driving economic development (Hassink, 2010; Simmie and Martin, 2010).

This brings us into the concept of evolutionary resilience and adaptive resilience. Evolutionary resilience is a concept rooted in behavioral psychology that challenges the notion of a single equilibrium state and emphasizes ongoing adaptive behavior and adaptability. It involves a process of social learning and recognizes the influence of historically inherited formal and informal institutions (Martin and Sunley, 2015; Scott, 2013). Resilience here is understood as the capacity to embrace change and adapt seamlessly to external events (McManus et al., 2012; Steiner and Atterton, 2014). In this interpretation, striving for the restoration of the status-quo is often not a meaningful objective. Instead, the so-called adaptive adjustment is a coping mechanism necessary when experiencing traumatic events and personal shocks or crises (Martin and Sunley, 2015).

Perrings (2006) note that resilience is defined along these lines in ecological economics, i.e. as “the ability of the system to withstand either market or environmental shocks without losing the capacity to allocate resources efficiently” (Perrings, 2006, p. 418). This definition moves towards an understanding of the more qualitative aspects of resilience, where external shocks should make systems ‘bouncing forward’ rather than backwards (S. Davoudi et al., 2012). Shocks inevitably alter structures and changes our perceptions. Adaptive resilience should also be seen in line with ecological resilience, which roots back to the 1960s and 70s (Folke, 2006). It can be interpreted along the lines of “robustness”—the capacity to change and systems design for maintaining stability of functions without altering identity and structures, which is particularly relevant to social-ecological systems in which humans are part (Anderies et al., 2004). This functional perspective is explicitly acknowledged in GRANULAR’s *Rural Diversity Compass*, the theoretical framework developed in the project. The Rural Diversity Compass sheds light on rural diversity by distinguishing different functions of rural areas, including *residential*, *productive*, *environmental* and *recreational* functionalities. These four functions are characterized by 24 components, drawing attention to typical functional features and their interconnectedness in particular settings. Combining the 24 components reveals the place-specificity of particular functionalities, their relevance, balance, disbalance, trade-offs, etc. (Oostindie et al., 2024).

Extended ecological resilience, on the other hand, goes one step further and reorganizes its structure without removing or compromising on its identity and feedback systems (Walker et al., 2004). Resilience is therefore not just the return to ‘normal’ but the ability to change and transform in the wake of shocks and stressors (S. Davoudi et al., 2012). However, it is pertinent to ask here whether the alternative states of this identity can be ascertained *a priori* before the crises struck. Indeed, we cannot know future alternative selves and systems before having gone through shocks and crises. Arguably, the true resilience of a socio-economic system is only shown after the shock occurs, though it may also reveal itself also during long-term stressors. This would include having to unpack the processes and the responses as they responded to behavioral, political, institutional, and social issues (Martin and Sunley, 2015). This refers to the notion of system’s identity—e.g. do regional system’s keep the same core identity/functioning over time? How much change and reorganization are permittable before we must claim to not be the same system?

Hu and Hassink (2015) point out that there has been an emergence of possibly unhelpful dualisms in the conceptualization of resilience, and that these dualisms—such as ‘bounce back’ vs ‘bounce forward’, ‘lock out’ vs ‘lock in’ and so on—often are applied in shallow ways without considering the relations between those terms. Hu and Hassink further write that such dualisms give us a limited idea of what regional or local economies are and presents a rather homogenous picture that moves either one way or another—but never as something that is connected (Hu and Hassink, 2015). Moreover, if such dualisms are left unquestioned, they might become hard to remove, which in turn may impact on our understanding of resilience. The terms ‘adaption’ and ‘adaptability’ is such an example of a dualism that has ‘gotten stuck: “adaptation tends to be automatically linked to low-level resilience, echoing with the term of ‘resistance’ and ‘recovery’. While adaptability often means high-level resilience related to ‘reorientation’ and ‘renewal’” (Hu and Hassink, 2015, p. 11). Finally, Hu and Hassink (2015) argue that the conceptualization of regional resilience needs to “adopt an ontologically coherent evolutionary perspective”, where trade-offs between dualisms, such as adaption

and adaptability are redefined as dialectic and interactive, and thereby should not limit the study of regional resilience to immediate shocks and disturbances but also slow burns (Hu and Hassink, 2015, p. 30).

We arguably live in a world of complex and interrelated systems, and the dynamics of these systems are non-linear in character, which arguably impacts on the way that we can deal with risks and uncertainties. For example, Bristow and Healy (2014) write that economies in the real world are "far from static or equilibrium entities" but are both complex and orderly at the same time (Bristow and Healy, 2014). As our economies are unstable and somewhat unpredictable, one must recognize that regime shifts do happen at a systems level every so often. This means that we cannot expect to assume 'normality' after a shock, as we are in a state of constant change. In this way, human agency requires that resilience is a matter of adaptive capacity, and that ultimately, seen in light of the present dominant discourse, the resilience observed is reflecting a particular agenda (Bristow and Healy, 2014). Moreover, as systems are consciously designed—or at least components of which are designed—resilience may be harder to apply (Anderies et al., 2004).

2.3. Resilience and space

Regional resilience has enjoyed a lot of attention in recent years, and the question above coupled with the risks and uncertainties now felt, are some of the reasons for this. However, the mere binding of the terms 'region' and 'resilience' does not clarify the concept (Christopherson et al., 2010). What is meant by 'region', and, more specifically, 'rural region', matters, and must be challenged and interrogated to shed light on how to measure resilience in 'rural' regions. In this setting, the role of space needs to be explicitly acknowledged as it affects a region's ability to adopt 'best practices' or indeed, to change (Boschma, 2005). Nonetheless, according to Pike et al. (2024), the notion of resilience, as used in a regional and spatial perspective, is a pliable term with no specific definition, as the notion has been applied to a variety of cases and encompasses a variety of economic and social dimensions (Pike et al., 2024). This enquiry gains added significance considering that the concept of resilience is inherently contextual, shaped by the specific conditions in which it is applied. As Bristow (2010) writes, the concept is also imbued with preparations for a more self-reliance. Consequently, socio-economic resilience cannot be separated from the human and social actions and relations that underpins regional systems (Bristow, 2010).

At the same time, according to Christopherson et al. (2010), the resilience of regions or of rural places can only be seen as self-made to a certain degree, as external circumstances affect these places. Regions are part of a multi-scalar system in which internal dynamics cannot be seen as entirely separate from what happens at other scales. Regions do exist in multi-scalar situations, where decision-making by political and economic actors impact on the development of those regions (Christopherson et al., 2010). This also forms part of how we understand 'risk' and 'resilience' at the rural or regional level due to the consideration of external factors influencing rural futures. However, if resilience is understood as the capacity to cope, recover or adapt, it also –and mostly– relies on local capabilities and characteristics. The interpretation of this matters, as history and geography have a role to play in devising policy intervention for creating for example resilient communities (Roberts et al., 2017).

Still, one enduring question is why some regions overcome adversities while others fail (Christopherson et al., 2010). Hassink (2010) suggests that this is a question with both philosophical and methodological implications. According to Swanstrom (2008), resilience is less than a theory but best described as a conceptual framework: It would serve policy and decision makers well to think about regions and localities in a comprehensive and systemic way, rather than attempting to provide hypothesis for testing. But in trying to make sense of the world, and learn from one another, this approach simply does not cut it. Moreover, it should be a holistic approach to bridge the analysis of institutions, economies, and people, while also taking into account the natural resources that these depend on, and going beyond the narrow discourse of competitiveness (Bristow, 2010). Furthermore, Hassink (2010) urges that using resilience, policy makers and scholars should proceed with "caution and precision" if resilience is to be a guiding metaphor for planning purposes, but also if the concept is being used to better understand regional dynamics.

What remains however, is the question of what a system is resilient from and towards. For Pendall et al (2010) studying regional resilience is aided by the "construction of a metaphor". In this way, whether or not various concepts, including equilibrium concepts, are relevant to the study of resilience in a region depend upon the

nature of the problem and what the desired outcome is, and how to get there. This implies that the notion of resilience is not only contextual in how it is measured, but also in how it is defined. In this view, each problem facing a region comes with its own set of expectations considering its performance. What these expectations are, and what criteria drives them are important for understanding what makes the specific region resilient (Pendall et al., 2010). This is echoed by both Martin and Sunley (2015), and Hu and Hassink (2015). Hence, delving into the realm of people, social relationships, and their interconnectedness within multi-scalar governance systems becomes essential for comprehending both regional and rural resilience (Pike et al., 2024).

2.4. Conceptual fuzziness

The population of 'fuzzy concepts' calls for greater conceptual coherence, causal theory, and proper theoretical interrogation (Markusen, 2003). This also applies to the notion of resilience, which conceptual meaning remains somewhat fuzzy, and seems to differ depending on application (Bassett et al., 2013; Hu and Hassink, 2015; Scott, 2013). The term carries 'productive ambiguity' and rejects a precise definition, enabling a different interaction between policy and 'the everyday' (Bassett et al., 2013). Such fuzziness and lack of concreteness may be interpreted in different ways and also may be symptomatic of a conceptual 'immaturity' (Lagendijk and Pijpers, 2013; Pendall et al., 2010). At the same time, the broad use of resilience across different disciplines implies its conceptual usefulness and adaptability, and is hence seen as a solution to prevent crisis in relation to a wide variety of challenges, spanning from natural hazards to cybercrime, terrorism, financial crises, social disorder, and collapse of critical infrastructure (Bassett et al., 2013). The lack of concreteness of the concept of resilience also indicates that it is a vague and pliable notion, which usefulness depends on policy makers' ability to delimit and concretize 'resilience' for their purpose (Pike et al., 2024; Scott, 2013) and design preparedness methods to various risks (Bassett et al., 2013).

Although several *definitions* of resilience technically exist, they are seemingly often applied in ad-hoc ways. Although the basic idea is associated with the way an entity or system reacts and recovers from shocks, to resist in face of adverse disruptions and possibly undergo plastic changes to ensure its structure to retain, maintain and restore core functionalities (Martin and Sunley, 2015), the conceptualization of resilience has become so broad that it is often seen to be replacing or being interchangeably used instead of e.g., 'sustainable'. This is where the issue of a lack of conceptualization comes into play, as the interpretation following resilience often seems to remain unexplained. It becomes a notion, a construct. However, that notion is up for interpretation to fit whatever context it is employed—it means different things to different people and is highly malleable (Christopherson et al., 2010). Due to its malleability, when we speak about resilience: How do we ascertain that our associations to the notion of resilience are the same; and furthermore, does it matter if they are not?

To summarize, the definition and application of resilience is all but clear, or at least not agreed upon. Moreover, the concept of resilience and its value as an analytical lens should not be presumed, but it must be demonstrated in practice to ascertain its conceptual and practical value (Martin and Sunley, 2015). Considering how resilience has been borrowed from engineering and nature studies, there is still a lot to unpack when it comes to creating a framework from which to measure resilience. Considering the importance of resilience as "fail-safe designs" in engineering and in terms of "self-restoring equilibrium dynamics" in nature, we now have to facture in human nature and human systems into the equation when applying it to policy. To this end, finding clear and measurable ways of concretizing resilience, or in this context 'rural resilience' is key.

3. Resilience in practice

Traditionally, resilience has been discussed mainly in economic or employment terms (Briguglio et al., 2006; Sensier et al., 2016). However, recent debates on rural socio-economic resilience have underscored that resilience is not solely about economic competitiveness but also about the capacity of communities to adapt in the face of change (Simin Davoudi et al., 2012; Ron Martin, 2012). This implies that the human and social dimensions –including gender relations– also have a significant role to play in the formation of resilient communities. In this section we provide an overview of the salient perspectives on resilience from a socio-economic and spatial angle. Starting with a regional economy perspective, we then delve into the notions of social, community and rural resilience.

3.1. Resilience in regional policy

According to Martin and Sunley (2015), resilience is a 'complex process', characterized by multitudes of possible outcomes based on constant change and continuity. The shocks may be either slow or fast in nature. However, it is suggested that they be considered in terms of the response they initiate, or 'reactive adaption', as Martin and Sunley call it (2015), since only then is it possible to understand the elasticity of the system exposed to them. Martin et al. (2016) distinguish four possible behaviors in regional resilience to shocks. These include: resistance (with different depths of reaction); recovery (at various speeds and to various degrees); re-orientation (adaptability of the economy as a response); and renewal (shift onto a new path). The impact of the shock depends on how deep it reaches into the regional/local economy, the duration and the nature of the shock (Martin et al., 2016). It may also depend on the characteristics of the exposed region, as well as on its economic structure and its growth paths. However, this depends on whether or not past system's behavior is a reliable predictor of future performance or not (Roberts et al., 2017). This raises interesting questions as to the nature of planning: In a world marked by continuously changing circumstances and uncertainties, is "planning condemned to solve yesterday's problems"? (S. Davoudi et al., 2012, p. 303). Moreover, a good share of the literature on resilience-building is grounded on the back of disasters, focusing on immediate shocks and crisis, rather than the gradual and culmulative changes (Currie et al., 2023; S. Davoudi et al., 2012). This impacts how resilience is conceptualized and perceived, and suggests that the issues at hand may need to be more effectively categorized, both temporally and spatially, in order to be adequately addressed.

Against this framework and considering agendas and attempts to make European regions more competitive and resilient, the EU introduced 'smart specialization' as a 'place-based approach' to regional development efforts. Particularly with an eye on the role of digitalization in pushing new avenues for entrepreneurial discovery to close the productivity gap (McCann and Ortega-Argilés, 2015), the regions are encouraged to work in triple and quadruple helices to identify new areas of strength. This places innovation policy in the region's hands, as it is innovation policy making from a regional perspective (Muštra, 2016). Smart specialization strategies may help find economic development opportunities by playing on the key strengths in the region and thereby avoiding a 'once-size-fits-all' approach to regional development. However, the rationale of the smart specialisation policy and the potential outcome of the strategies are somewhat inconsistent with the assumption implicit in resilience theory that, in the long run, economies do best when in balance—where no business or sector is locally dominant, where control is dispersed rather than concentrated and the ability to adapt is present (Bristow, 2010).

Moreover, the framework assumes equal opportunities, capacities and capabilities in the region to perform and successfully implement the Smart Specialization Strategies (S3). However, the capacity to develop resilient regional economies differs greatly, even in the presence of significant incentives to develop solid strategies. In this framework, Torre (2023) raises an important question when it comes to uneven rural development and the role of place and the knowledge-based economy: How can knowledge emerge and disseminate in rural areas that are perceived as being less innovative and technologically advanced? Torre (2023) concludes that by involving local partners in the design of e.g., research programs, while also combining organizational, technological, and territorial innovations, policies may produce knowledge that is relevant to rural communities. Placing this in the context of the more recent formulation of the smart

specialization strategies devised by the European Union to level the playing field between innovative regions and regions falling behind, we can see that such 'diversified specialization' or 'related variety' could work (Foray, 2014). However, it presupposes that regions, or localities where Local Smart Specialization Strategies (LS3) are devised, are similarly constructed and that the capacity and capabilities within these regions to enable entrepreneurial discovery processes and the identifications of domains through triple helix-collaborations, are features that each region or local area possesses (Corvers, 2023). Ultimately, enabling resilient local economies depends on the institutional arrangements and the capacity of regions and localities to develop and implement regional economic development strategies (Kroll, 2015).

3.1.1. The role of hegemonic discourse in regional development policy

If resilience is loosely understood as the ability to adapt, bounce forward, absorb and recover in response or anticipation of shocks and crises, it would be pertinent to look at the role resilience plays in policy. Anticipation and preparedness of shocks presupposes the existence of measures and policies to bolster a bounce-back effort, to minimize adverse impact on infrastructure, businesses, bolster financial frameworks, and the like (Martin and Sunley, 2015). This is particularly relevant when zooming in on the regional and local, to determine resilience in terms of space and time. Most of the literature connected to resilience is dominated by a clear focus on economic competitiveness: How competitive is the region, how likely it is to experience positive economic success, is able to ride tides of global economic development, as well as being socially inclusive and environmentally sustainable? In this way, regional resilience is conceptualized within what Bristow (2010) calls "hegemonic discourse of competitiveness", where regional development policy is dependent on its relative economic competitiveness (Bristow, 2010, p. 156). One of the principles that follow the dominant discourse on competitiveness for defining success is connected to the idea that both capital and labor are hypermobile—which essentially creates a truth in which all regions and areas are able to compete for talent and investments. This, Bristow writes, raises interesting questions about policy processes and how these ideas emerge and spread throughout policy networks and across spatial scales. (Bristow, 2010).

Moreover, the competitiveness logic inherently creates a logic of winners and losers among places. Whether this or not matters, is up for discussion, but the sentiment it creates is wholly negative from a 'left behind places' point of view (Pike et al., 2024). This is particularly relevant in relation to the emergence of approaches to understand various policy processes concerning resilience—and how this impacts the understanding of what resilience might mean, and against which criteria and priorities resilience is defined and measured. Ashkenazy (2018) illustrates this through the perspective of service provision in remote rural areas. Since it is often more expensive to provide services in these contexts, public efforts going in this direction are often seen as undermining national resilience, rather than contributing to it. Yet, these areas hold significant inherent cultural and historical value in themselves. If resilience is indeed a multi-scalar and multi-dimensional concept, defined from a specific set of functionalities, the way that resilience can be measured would mean the development of different narratives, frameworks and metrics for the specific context.

Bristow (2010) shows how the construction of such 'economic imaginaries' can be understood in terms of complex and co-evolving relationships, which impact the shaping of political projects. There is an initial 'selection' phase, where certain narratives are choices due to their ability to explain and interpret certain events, as well as legitimate actors in the events and the goals of certain powerful institutions, organizations or people. This is followed by a second phase with is the process of 'retention', where discourses are incorporated into institutional and organizational rules and routines, technologies, and sites. The more areas in which these are incorporated and retained, the greater the potential of policy process integration (Bristow, 2010). Finally, there is the process of reinforcement, where discourses are embedded in e.g., governance structures and regulations, and are naturalized. Using the cultural political economy approach, these processes outline how certain discourses become hegemonic—it shows how discourses are socially constructed, contingent and context-dependent, and need to be 'kept up' to ensure their reproduction at different sites and scales. This being said, Bristow (2010) adds that the materialization of the discourse is likely to involve an asymmetrical manipulation of power and knowledge, and thereby the discourses are open to resistance.

3.1.1. Alternative perspectives on regional (economic) resilience

Resilience is primarily seen in light of its relative productivity performance and economic development, which includes socially inclusive and environmentally conscious aspects, but remains strong in adverse economic crisis (Bristow, 2010). Although mentioned and accounted for, socio-economic aspects play second fiddle to economic performance, although such socio-economic issues support (regional/rural) economic development. This is particularly clear when seen in light of the emerging wellbeing economy. Although socio-economic issues are resonant in resilience literature, human resources are primarily seen in light of their economic usefulness, rather than understanding resilience in terms of the complexity that supports socio-economic prosperity. This is well illustrated by Task 4.4 in GRANULAR, which explores how subjective wellbeing varies across rural and urban contexts in Europe. Using microdata from three major surveys, including the European Social Survey (ESS), the UK Household Longitudinal Study (UKHLS/Understanding Society), and the German Socio-Economic Panel (SOEP), the task examines how settlement type, socio-ecological context, and environmental exposures shape different dimensions of wellbeing. This work provides insights into how the concept of personal wellbeing builds on the notion of personal resilience (staying mentally healthy during tough times) and may also contribute to fostering the broader socio-economic resilience of rural areas. Results are presented and discussed in Deliverable D4.4 Wellbeing and Quality of Life in Rural Europe (Knies and Hopkins, 2025).

Moreover, rural resilience cannot solely rely on either social capital or local leadership, even if the former is crucial for creating new economic opportunities and diversification through e.g., entrepreneurship, as they tend to compartmentalize communities and the individuals within them (Li et al., 2019; McManus et al., 2012). Rural resilience therefore requires a deeper understanding of what the traditional regional resilience discourse has to offer: It requires more nuance, and different parameters to measure economic performance of industrial structures beyond GDP. We cannot compare complex socio-economic systems with e.g., disruptive economic activity because socio-economic systems are heterogenous and more unpredictable and cannot be 'locked in' to the same degree as industrial structures and radical and transformative technologies (Hassink, 2010; Simmie and Martin, 2010).

Competitiveness and sustainability remain part of the dominant hegemonic discourse of what constitutes resilience, but resilience relies on much more than merely these aspects. Martin and Sunley (2015) point out that considering resilience in a socio-economic context, it cannot be separated from its normative meanings. They suggest including a more encompassing definition of resilience; one that accounts for the local and regional economies' ability to recover from shocks or crises, whether competitive or environmental, to resume its developmental growth path—and include adaptive changes if necessary to its structures. This would either bump the economy back on its previous path or pave a new way which incorporates its human and natural resources in a more productive way. In this reading, the value of an e.g., the regional or rural economy's sustainability and competitiveness is dependent on the economy to remain resilient to disruptions and shocks over time (Scott, 2013; Simmie and Martin, 2010). Here we clearly see how regional development strategies have been forged under a hegemonic competitiveness discourse that "reflects the status of competitiveness as a key discursive construct" (Bristow, 2010, p. 153). Furthermore, discourses of competitiveness are 'place-less' and global, which Bristow (2010) argues is too narrowly constructed for regional development, and that needs to be interrogated.

Various contributions challenge the hegemonic discourses in regional economic resilience by constructing "'alternative discourses' that are grounded in alternatives to the social relationships that underpin hegemonic imperatives, although the degree of opposition and radical (counter-hegemonic) change they may represent remains an open question" (Bristow, 2010, p. 157). This is an important part of deconstructing and understanding regional development policies. The powerful and hegemonic 'economic imaginaries' at play will lay out specific paths to follow and particular indicators for measuring success. In a world where faced with an increasing uncertainty and insecurity, understanding what 'success' is based on, e.g., often 'neo-liberal' imaginaries, is helpful for constructing alternative discourses, including alternative takes on how we can live and work differently, such as e.g. alternative indicators seen in the well-being economy. These alternatives are also based in and on social relations, but not necessarily 'mainstream' relations: It is rather about development than unlimited growth, use value rather than exchange value, less about property rights, capital accumulation and pursuit of competitiveness (Bristow, 2010, p. 158).

Different narratives create different outcomes and policies. Scott (2013) argues that it is crucial to examine the underlying ideological and political content of dominant resilience discourses. For example, the USA's narratives surrounding resilience is tightly connected to their ideas of self-reliance, distrust in the state and government and great emphasis on individualism. This makes a difference for what we expect to see, our preconceived notions of what 'resilience' means, and what we can do about our situation to achieve resilience. Seen in relation to regional and rural resilience, the conceptualization of the term is shaped by the dominant discourse of the space and time we find ourselves in, and how alternative understandings and interpretations of 'resilience' might emerge by being retained and reinforced. Bristow and Healy (2014) use their paper on regional resilience to place emphasis on agency in understanding and theorizing about regional economic resilience. They outline why agency matters, and finally how they are organized and how they act, as well as how the focus on agency might help elucidate the conceptualization of resilience, as well as how to measure it empirically and operationalized. Human agency plays an integral role in the complex systems that we find ourselves in, but how collective actions by individuals and others behave in the face of a shock, or indeed what drives them to make certain decisions and choose a specific line of actions to adapt, is an aspect that requires deeper interrogation. This is why understanding the composition of actors and existing links between them matters for understanding how regional or local economies work and might adapt to disturbances, as systems change, and human agents' behavioral influence happen in tandem.

Among the more disruptive and non-conventional perspectives on regional economic development and resilience, the approaches grounded on *de-growth* and *wellbeing economy* are probably the most relevant contributions. Both perspectives strive to move 'beyond GDP' as a measure of prosperity and both measure impact on and recovery by communities in a new way, especially considering the uneven impacts shocks and crises, such as e.g. the global Covid-19 pandemic (Crisp et al., 2023). In both of these paradigms, human and social capital, as well as environmental and natural assets are considered as part of a multidimensional economic system. These dimensions impact and bolster e.g., business activity, as well as addressing spatial and social inequalities, calling for a differentiated approach in policy making, moving towards place-based policy considerations. Still, both perspectives have important discrepancies too, particularly as regards economic growth and capitalism, towards which the wellbeing economy discourse shows ambivalence in that its proponents hold conflicting views or abstain from taking a clear position (Buch-Hansen, 2025). The *wellbeing economy* has gained particular traction in Europe, with the Nordic countries paving the way (Birkjær et al., 2021). With low levels of corruption, well-functioning state institutions, social benefits in place, high income levels, individuality, freedom, and social trust, the Nordic Region often tops international classifications on well-being and happiness. As Birkjær and colleagues (2021) note, albeit not explicitly stated, the intention for actively safeguarding individual freedom, preventing corruption and ensuring trust on both a government and societal level, is most likely promoting the well-being among citizens. To have a "well-oiled" society would arguably result in a more prosperous economic future, and therefore be beneficial for the state in general. However, a large number of Nordic people struggle with for example, mental health disorders, low life-satisfaction, as well as reported discrimination and high suicide rates (Birkjær et al., 2021).

Other than the degrowth and wellbeing paradigms, following the numerous crises in Europe over the past 15 years, several alternative agendas for how to approach urban economic development. Examples include: *Inclusive Growth*, understood as an economic system which enables the greatest number and range of people to participate in economic activity and to benefit from economic growth (Gupta et al., 2015); the *Doughnut Economics*, defined as an ecologically safe and socially just space (the Doughnut) in which humanity can thrive (Raworth, 2017), alongside other circular economy discourses (Calisto Friant et al., 2020); *Community Wealth Building*, conceptualized as local economies organized so that wealth is broadly held and generative of income, opportunity, dignity and wellbeing for local people (Dubb, 2016); the *Foundational Economy*, as an expanded neo-endogenous development approach (Mackinnon et al., 2022). People, places and local powers are important aspects in these alternative approaches to economic development. For example, the Foundational Economy framework rests on three main ideas that all break with the norm of measuring economic aspects to determine progress and success. The framework suggests that the well-being of citizens and their social consumption of essential services and goods, access to basic goods and services provided through public policy, and ensuring that the careful practice of policy with an aim to disrupt top-down technocratic policies, will all help to diversify and enable multiple economies, rather than focusing on the mainstream idea of what 'the economy' is (The Foundational Economy Collective, 2020). In short, "society

[is] strengthened by focus[ing] and invest[ing] in the infrastructures that make civilized everyday life possible" (Crisp et al., 2023, p. 6).

While acknowledging all these views on regional economic development and resilience it is important to keep it in mind that the current discourse on regional economic resilience is still forged on a neoliberal growth paradigm and upon the conventional narrative build upon regional economic competitiveness, often under stereotypical views and pre-defined roles for different types of regions, according to their degree of urbanization (Lundgren and Ljuslinder, 2024). Alternative discourses on regional economic development and resilience struggle to become mainstream not only because of the inertia embedded in such underlying economic principle but also because the mainstream concept of regional resilience is somewhat vague and elusive.

3.2. Rural resilience: an emerging concept

With profound advancements in information technology, the proliferation of digital tools, and the widespread availability of consumer products and services online, both in rural and urban areas, the unique characteristics of these locales are undeniably fading (Bæck, 2004) and they tend to co-evolve over time (Mærsk et al., 2023).This can be seen as the 'digital' expression of a transformation that Hompland already termed as 'urbanization' back in the 1980s (Hompland, 1984). Sucha a cultural transformation exerts an influence on 'regional variations', leading to the decline of traditions and the emergence of a more homogenized population across countries. It also implies that the local community no longer serves as the primary normative center (Bæck, 2004) and that cultural identity is shaped elsewhere, displaying a certain malleability (Barcus and Brunn, 2010). In this way, rural areas have become tightly interwoven with the rest of the world in terms of the 'dissipation of culture' (Cras, 2018). Despite rural and urban areas becoming increasingly similar, the idea of 'rural' still serves as a baseline against 'modernity', and therefore the rural imaginary represents the opposite to urban areas, symbolizing tradition and (slow) continuity (Roberts et al., 2017). In spite of this cultural derive, rural areas are not homogeneous. As highlighted by Quaranta & Salvia (2014), rural areas are intensely heterogenous, with some areas struggling with depopulation and abandonment and others rife with activity and land used for food production. Moreover, rural spaces are in constant transition, whether experiencing divestments, investments, depopulation or population growth. At the same time, regions and rural areas do exist in multi-scalar situations, where decision-making by political and economic actors impact on the development of rural regions, or rural areas (Christopherson et al., 2010).

Against this dynamic and heterogeneous framework, the exploration of 'rural resilience' as a concept has revealed its relatively recent emergence, and the notion of it being a blend of restructuring and resistance, adaptation and transformation, involving both change and permanence, seems to capture some of the essence of the concept (Li, 2023). According to Scott (2013) there are primarily two perspectives on resilience that emerge from the rural studies literature: the first one frames it as a component of social-ecological resilience. The second one interrogates community resilience as it happens in rural areas. The Author concludes that rural resilience is primarily used in connection to economic uncertainty and ecological crisis, within negative parameters of rural decline. Here, 'rural resilience' to some extent presupposes a state of socio-economic 'improvement', rather than departing from a sense of 'rural bolstering' (Scott, 2013). Anthopoulou et al. (2017) present a slightly different perspective, as they argue that public discourse is also framing 'rural' as a "resilient milieu of solidarity", and of social innovation. Skerratt (2013) also supports this more possibilistic view, as rural communities are posited as 'proactive' and 'active' and takes strides to develop processes for their resources and capacity building. Ashkenazy et al (2018) highlight the ways in which regions and its rural residents can use new circumstances to improve their situation. In this light, rural resilience could be seen in light of "capacity to ensure continuity", improvements or betterments (Ashkenazy et al., 2018, p. 211), whether of a farm or of the traditional cultural character of the region. These Authors identified five main categories that can express three dimensions of resilience—'persistence', 'adaptability', and 'transformability':

1) Valuing traditions and local capacities;
2) Promoting economic diversification;
3) Utilising technological innovation and cost efficiency;

4) Increasing cohesion between different social groups within the region and outside
5) Optimising the use of public support.

This is also in line with Roberts et al (2017), for whom rural resilience can be a useful framework to scoping policies for developing rural areas in the EU, to understand how small businesses in those areas innovate and learn, and to study how farmers and town communities work together. Adam-Hernández and Harteisen (2020) argue that there are many challenges imposed by economic disruptions, social changes and ecological transformations across Europe today, and that these are particularly visible in the evolution of rural communities and villages. In light of this, rural resilience studies look at how peripheral village communities in Europe shape change particularly focusing on those that are able to adapt and adjust their development path. By combining resilience research as it is found in social ecology, community development and psychology, it is possible to conceptualize rural and village resilience (Adam-Hernández and Harteisen, 2020).

Steiner and Atterton (2014) conceptualize rural resilience as the ability to handle disruptions and rearrange a system during these disruptions, while keeping the same basic function, structure, identity, and interactions, is how. In a rural community development perspective, these Authors argue that resilience should be understood as the way people are able to utilize and build their capabilities and capacities to thrive in system that is always changing—it is therefore a continuous process. In essence, they write that resilient rural communities encompass various elements, including a sustainable local economy, a strong sense of belonging, social capital, and a high-quality local environment. A similar holistic operationalization of rural resilience is adopted by Tao et al. (2025) in their appraisal of rural resilience in the Chinese province of Ganus. To determine a 'successful' rural community, however, might go beyond these factors, as it also related back to our previously mentioned ideas of networks, leadership and partnership that exist in our multi-scalar environment and layers of governance structures " (Steiner and Atterton, 2014).

In sum, the resilience narrative offers interesting perspectives to rural studies. It provides alternative analytical methods for exploring 'path dependencies' in local development and identifying entrenched interests and 'institutional apathy' that leads to 'locked-in' development trajectories, which in turn allows for timely vulnerability assessment and appropriate policy interventions (Scott, 2013). More importantly, the resilience discourse provides an alternative policy narrative for rural development, reframing the debates and emphasizing conscious actions and opportunities for rural development. Crises may in fact lead to new opportunities if deliberative responses are made to involve relevant stakeholders in taking care that the place is bouncing forward (Scott, 2013). By involving networks of stakeholders, and using adaptive network governance as a guide, rural development practice can address the questions of what, to what, and for whom. This is placing agency in the hands of the local community rather than in the overstanding structures (Paniagua, 2013), allowing for a more dynamic approach to governance of a space that is constantly changing and adapting to the changing framework conditions.

3.2.1. Economic resilience in rural areas

Steiner and Atterton (2014) have explored the contribution of rural enterprises to local resilience and found that the private sector is contributing to local resilience, both socially and environmentally, both directly and indirectly. Rural businesses make a direct contribution to rural resilience is seen in e.g., job creation, place-based services, and local product development. But local business contributions extend beyond the direct outcomes: The more indirect influences are seen in the added value of diversifying the local business structure, of enhancing local resilience by leveraging economic, social, and environmental resources. Singh et al. (2023) claim that actors in the rural business ecosystem and related interaction spaces have become adrift due to urban-centric development paradigms, emphasizing the role of digital platforms in strengthening rural resilience by onboarding missing actors and augmenting proximity. Torre et al. (2023) identify five specific knowledge-based economy components that have contributed to rural innovation in France, including (1) the governance of agricultural lands, (2) the territorial attractiveness and well-being, (3) the agroecological

transition in the territories, (4) the territorialized food systems[1], as well as (5) the bioeconomy and circular economy.

Nonetheless, like in any other region, businesses in rural regions need to both cooperate and compete to build a resilient economy and to prosper. This same idea is put forwards by several other research contributions (see eg. Anthopoulou et al., 2017; Steiner and Atterton, 2014). However, the ability to develop a robust local economy characterized by a diversity and growth of businesses, including tourism and ample employment opportunities for all depends on the interdependency of rural communities and businesses, and the recognition of their mutual interdependence, and their complementary nature in a given context (Cuéllar-Fernández et al., 2024; McIntyre and Roy, 2023; Steiner and Atterton, 2014). As Steiner and Atterton write: "progress in one of these areas brings progress in the other; consequently, if economic resilience declines, social resilience is also likely to decline" (Steiner and Atterton, 2014, p. 241). Generational renewal is just one challenging part of rural decline, which also includes wider social, environmental, economic, and cultural issues (Murtagh et al., 2023).

A paramount example of these links between sociodemographic and economic trends is provided by the relationship between demographic resilience and labor markets in Europe's rural areas. Many rural areas in the EU are characterized by aging populations and outmigration of younger generations, particularly of young women (Deimantas et al., 2024; Lasanta et al., 2017; Mascherini et al., 2023). In most countries across the EU young educated women are more likely than their male counterparts to leave rural areas in search of better economic and social opportunities elsewhere (Ghio et al., 2023; Leibert and Wiest, 2016a; Perpiña Castillo et al., 2024). Inevitably, the outmigration of young women undermines the capacity of rural areas to 'futureproof' and weakens their level of resilience by skewing the local population towards older, less economically active residents (EC, 2021a) and by exacerbating labor shortages in key sectors (Seuneke and Bock, 2015). The loss of working-age residents can fundamentally undermine the social, economic, and institutional foundations that have historically sustained these regions (Curtale et al., 2025), leading to the collapse of local businesses, services, and community institutions (see e.g. Bański et al., 2020; Esparcia, 2024 for examples of these dynamics in different spatial contexts). When demographic shifts related to population decline, aging, and outmigration in rural areas reach a certain threshold (e.g. a 'demographic tipping point'), they can trigger a self-reinforcing cycle of decline.

Other than contributing to keep birth rates within population replacement levels, young women often serve as the 'social glue' holding rural communities together, maintaining kinship networks, organizing community life, and providing vital social services (Bock, 2004). Rural women have demonstrated remarkable resourcefulness, diversifying household livelihoods and leveraging their social capital to sustain local institutions and support systems (Raue et al., 2024; Seuneke and Bock, 2015). So, as young rural women depart, the burden of care work and community leadership increasingly falls on those who remain, further straining local resources and resilience (EC, 2021a). When rural women have access to meaningful employment and professional development opportunities, it not only enhances their individual and household wellbeing, but also strengthens the overall vitality of the local economy and community (Raue et al., 2024; Seuneke and Bock, 2015; Shortall, 2015). Consequently, labor market participation of rural women is key to maintain the social and economic resilience of rural communities (Leibert, 2016; Shortall and Marangudakis, 2022; Unay-Gailhard, 2016; Wiest and Leibert, 2013). Labor market integration of rural women requires that rural women have access to good quality jobs in rural areas, alongside opportunities for entrepreneurship, self-employment, and community leadership, which also empower them and provide a sense of purpose and agency (Bartekova and Janikovicova, 2025; Bock, 2004; Seuneke and Bock, 2015). Additionally, the ability to balance work and family responsibilities, as well as the availability of community-based support systems, can make rural living a more attractive option than urban centers (O'Sullivan et al., 2022; Shortall, 2015). Factors driving rural attractiveness and demographic performance in rural areas are under investigation in GRANULAR Task 4.5 - Rural Attractiveness.

[1] Task 4.3 in GRANULAR is currently exploring the sustainability of local food systems through a system-oriented modelling approach. The task has designed an appraisal modelling framework built on *drivers*, *transition dynamics*, *dimensions*, and *sub-dimensions*. These are substantiated through indicators found in the literature.

In general, the evolution of labor markets in rural areas can be considered a reflection of rural community's ability to adjust to shifts in the social and economic surroundings. On this point, the literature highlights the role of internal factors at firm level and external factors –regional characteristics, *milieu* –, which are also relevant for the study of resilience (García-Cortijo et al., 2019; Rodríguez-Gulías et al., 2021). Generally, it seems that local areas need to have a good amount of entrepreneurial activity to be economically resilient. Entrepreneurship is also a way to diversify an otherwise undynamic labor market (Huggins and Thompson, 2015). However, economic shocks can affect this activity, and some places can keep more entrepreneurial activity than others. Small and Medium Enterprises (SMEs) and entrepreneurial activity are crucial for local economic resilience, but they can also be affected by broader economic conditions, because they determine the capacity of a business ecosystem to adapt or adjust (Huggins and Thompson, 2015). Given that local economies are becoming increasingly connected to global markets, they are more likely to be exposed to external shocks, and there is no guarantee of continued economic success. In their investigation about the financial crisis in Greece, Anthopoulou et al (2017) found that process seemed to have generated some level of counter-urbanization, and write that this process triggered new ideas of "idyllic rurality". Rural business owners, influenced by their surroundings, demonstrate entrepreneurial behavior, and play a vital role in addressing unique challenges, ultimately contributing to overall community development and resilience. If a local economy can keep or rebuild entrepreneurial activity after a shock, it could be considered entrepreneurial resilience, but it is important to see it as a dynamic process—more entrepreneurial innovation in new businesses can improve the adaptability of a place (Huggins and Thompson, 2015).

Business diversification in rural areas is also key for both business as well as community resilience. Looking at the role of industrial structures in creating resilience, Ženka, et al. (2019) find that the regional and local context mattered more for resilience than the old industrial structures in Czech regions. Old industrial regions were more resistant and resilient than initially expected in their case studies in Czech Republic, and that rural regions reacted in very different ways depending on whether or not the region had previous experience with economic shocks, as well as the internal composition of the industrial and economic landscape. This implies, that there is a gap between empirics and theory in economic development, as this is primarily built on ideas of structural diversity, actors, and institutional contexts, while many regions in at least the Czech Republic are dominated by foreign-owned manufacturing plants, rather than these dense networks and local SMEs. This diversity of regions demonstrated that it is important to be mindful of the spatial aspects of resilience, to avoid creating 'one-size-fits-all' policy designs for achieving resilience.

This points to the need to understand contextual issues and understand the extra-regional factors that may also influence regional development (Ženka et al., 2019). As Martin et al. (2016) write, the industrial structures in a region tell us less about a regions' resilience than the regional context and composition does. This is echoed by et al (2022) in their case study from Spain, where rural areas that offer jobs are able to trigger processes that ultimately are positive for rural resilience, by strengthening the area to become more competitive, socially dynamic and economically viable. In a different paper looking at the same area in Spain, Castilla-La Mancha, De la Cruz and Olmo (2022) show how heritage resources can be positively employed to promote competitiveness, as well as the development and implementation of territorial development strategies. The current limitation of the economy is struggling to revamp and combat outmigration, which leads to landscape transformations and the disappearance of unique heritage. The attempts to use heritage as a re-energizing frame for creating rural resilience is reminiscent of the discussion above on the inherent role of rural resilience versus that of national resilience—whether they are mutually reinforcing or excluding. Along these lines, recent literature places the emphasis in the role of creativity and artistic expression as important means for rural revitalization and resilience. Qu and Zollet (2023) promote a neo-endogenous perspective to examine how socially engaged art represents an effective tool for revitalizing communities and strengthening the resilience, from the perspective of three remote Japanese islands. Their research shows how increased place recognition resulting from an exogenous art initiative triggered endogenous community responses in terms of increased entrepreneurship and social innovation, facilitating the emergence of neo-endogenous revitalization processes (Qu and Zollet, 2023).

In conclusion, the resilience of rural economies to external shocks and disturbances depends on a multitude of factors (Martin et al., 2016), and to understand resilience therefore requires investigations from a variety of angles - more than merely the place or region's industrial structure, including the institutional context (practices, conventions and policies) . As previously stated, regional and local capacities and capabilities are

uneven across the mosaic of European rural areas, and the role of community and the dominant community culture impact on a broader societal level, including a community's ability to cope and its impact on entrepreneurship (Huggins and Thompson, 2015). From this, it seems that resilience cannot be only connected to the discourse of competitiveness and economic viability, whether on a rural, local or regional scale. Bringing in aspects that go beyond this narrow focus may be beneficial. Moreover, understanding that rural resilience in essence cannot be separated from place and context, we would do well to recognize the role hegemonic discourses play in shaping the dominating narrative of being resilient or vulnerable in an area. Therefore, looking into the cultural and institutional specificities, or even social-ecological aspects, of rural areas, is an essential requisite to acknowledge their ability and capacity to change, adjust, absorb and adapt (Bristow, 2010).

3.2.2. Community resilience and the role of farming in rural Europe

Moving beyond the business, entrepreneurial and economic perspectives, 'community resilience' is also prominently featured in rural resilience studies. Li et al. (2019) describe resilient communities as those that "possesses the capacity to prevent unwelcome challenges in the face of external circumstance, and to adapt to the changing external environment in such a way that a satisfactory standard of living is maintained" (Li et al., 2019, p. 139). As with any conceptualization, also community resilience is situated in political and cultural context (Wilson, 2012) and its definition will thereby differ depending on the situation. Because of its conceptual ambiguity, there is a lack of consensus of how to measure it, and it is therefore applied to the particular situation investigated (Paniagua, 2013).

As any system that involve individuals, the notion of community resilience is not an entirely 'neutral concept´ although often portrayed as being value-free (Mulligan et al., 2016; Roberts et al., 2017). Sociologists have debated the word "community" for decades, and it is interesting to observe how the word is always used in a favorable, soft way. It paints the idea of a place of belonging, which is part of a deep-set desire in human nature (Mulligan et al., 2016). By using the word 'community' we are nevertheless entering a space of various contextual and social aspects. The word presents a myriad of different developmental trajectories and governance scales. Mulligan et al. (2016) present community resilience along a continuum (see Figure 1). The figure presents the complex community making process, and nods to the tensions and interplay between exclusion and inclusion, and the role of individuality and solidarity. Community resilience, they write, brings forth the tensions that may surge in planning efforts when the community is undergoing change (or continuity). Mulligan et al. (2016) also comment on the use of the word 'community' in relation to resilience, stating that the way community is used in this setting is creating a "stronger public appeal" to build resilience at all levels.

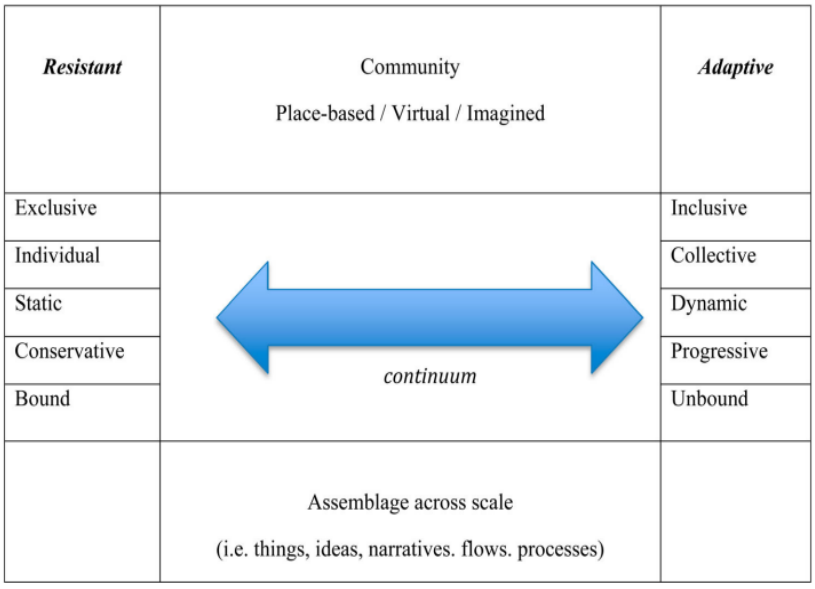


Figure 1: The interplay between resistant and adaptive communities: A conceptual framework (Mulligan et al., 2016)

Roberts et al. (2017) write that "by bracketing 'resilience' with 'community' naturalizes resilience as a common project, because 'community', as a construct, can privilege one group or set of values over another, and diverts attention from the other scales of action impacting resilience of communities. 'Community resilience' seeks to mobilize a collectively; yet, in the process, generates a 'discourse of equivalence' that suppresses social inequalities and hierarchies (…) within and between places" (Roberts et al., 2017, p. 375). These Authors drew up a diagram of what they considered critical motifs in resilience literature, as they connect to community resilience (Figure 2). The motifs are concerned with the multi-scalar aspects of resilience, the normative understandings of resilience and finally, the integrated policy conceptions of resilience. It connects to how communities can organize their efforts to respond to challenges, as most of the processes that impacts on a community's ability to adapt, often happen at other (policy) scales—whether exogenous shocks and slow burns or through policy changes impacting on a community's adaptability. Roberts et al. (2017) indicate that community resilience means little when seen placed in the digital context. There is little room for the community to play a part in building resilience but adopts it as a 'package deal'. This implies to some extent that the idea of community resilience is a quality that is not inherently within the community itself but is something that must be obtained.



Figure 2: Critical motifs in resilience literature (Roberts et al 2017)

Research indicates that the development of community resilience requires the presence of adaptive capacity across three dimensions: social, economic, and environmental/ecological. Indeed, strong leadership, as well as changes across social norms, are required to enable resilience through 'adaptation' or 'adaptability' (Adger et al., 2005; Li, 2022). Moreover, the integration of various levels of resilience suggests that resilient communities are comprised of resilient groups, with resilient individuals collaborating collectively. 'Community capitals' are also important here, and they are often described in terms of 'community resources' in literature (Roberts et al., 2017), where community members are developing, renewing, and sustaining the community. Community resilience can therefore be seen as an ongoing process that empowers a community to flourish even in the face of persistent socio-economic changes (Steiner and Atterton, 2014). This is particularly clear in community disaster resilience literature (Cox and Hamlen, 2015), but is also being used as a framework for evaluating the effect of local initiatives (Roberts et al., 2017). In an exploration of the role of digital tools for disaster response in rural areas, Levesque et al. (2024) establish a robust link between municipal digital services and rural resilience, defining a range of technological and cultural barriers that the digitalization of rural municipalities.

In a similar vein, some scholars and practitioners have tried to reframe resilience as a bottom-up process, placing the emphasis on producers and consumers and their interaction locally rather than engaging with large, non-local corporations (Bristow, 2010). One example is the Transition Town-movement started in 2005, which seeks to be a "movement of communities coming together to reimagine and rebuild our world through a process of creating healthy human culture", and builds on ideas of resilience (Transition Network, 2016). One practical implementation of this line of thinking are local energy transitions. When considering energy literacy—awareness, attitudes and behavior—as a road towards rural resilience, Chodkowska-Miszczuk et al (2021) point out that the present energy transition is not only an about the changes that follow technological development, but also about how the energy shift reflects general environmental changes and socio-cultural transformations in local communities. Designing successful energy transition strategies requires awareness,

positive attitudes and behaviors in local communities. This in turn impacts on the relative resilience of these rural areas, as the role of a 'whole-of-community' approach is important for facilitating change (Chodkowska-Miszczuk and et, 2021).

For Ashkenazy, et al. (2018), resilience in the context of farming can be defined as the "capacity to ensure the continuity of a particular value, public and private good, or practice in one form or another, such as for example, the continuity of an agricultural practice, a family farm, or even the character of a region" (Ashkenazy et al., 2018, p. 211). Therefore, the resilience of a farm in rural areas is not the same as rural resilience, and it does not necessarily equate to social resilience, either (Ashkenazy, et al., 2018). This is also observable in Junquera et al.'s (2022) study on structural changes in agriculture and farmer's social contracts in the Swiss mountain regions. The intensifying of farming, driven by macroeconomic conditions, restructuring, and the subsequent 'rationalization' of agricultural supply chains, is seen to affect social relations in these areas. This implies dwindling contact between family and friends and others, but more contact with commercial partners. The increasing workload reduces free time, and it affects farmers' connections with other people in the area. This aspect is being investigated in GRANULAR Task 4.3 – Food Systems. As part of the comprehensive analysis focusing on the sustainability of food production and consumption systems in Europe, the research team has published an analysis shedding light on the role of land tenure systems and ownership models in food sovereignty and food security, focusing on the issue of transnational land acquisition in Europe (Slätmo et al., 2026).

Assuming that rural resilience, as we have seen, depends on community relations and their ability to adapt together, this process impacts on rural resilience, as social networks erode. Kasimis and Papadopolous (2013) also write about the role of farms in changing the face of rural Greece. They point to a 'new rurality' in which agricultural activity is contracting and reorganizing, construction is expanding, and tourism is blossoming, as well as the influx of migrant laborers. This 'new rurality' has been particularly seen to be conditioned by economic crises, which induced a 'back to the land'-movement (Ashkenazy et al., 2018). An influx of new residents, whether retirees, amenity-seekers, or remote workers, can indeed inject new vitality into rural areas (Hedberg and Haandrikman, 2014; Oliva, 2010; Stockdale, 2006). Interestingly, the 'reverse mobility' following the 'back to the land' combines both modern and traditional elements: new work methods and organization, as well as a rediscovery of cultures, productions and traditional crops (Ashkenazy et al., 2018).

These examples from the Swiss mountain region and the Greek case studies present both similarities and two contradicting ideas: On the one hand, they converge on the multi-scalar impact that macroeconomics, or national economic direction, impact on the individuals in the regions and how these do not necessarily support localized rural resilience. On the other hand, they diverge on the emphasis placed on the value of farms in the rural area itself: in the Swiss mountain regions, farms are seen as an integral part of building rural resilience from a social network point of view, whereas in Greece the farms are assigned less inherent value except for their symbolic presence representing continuity and preservation. Geographical scale might be an important aspect to consider here. As McManus et al (2012) note, the sense of belonging plays an important role from a more localized perspective, as it links to behaviors and the perceptions of actions and impacts—also in terms of building community resilience.

Moreover, the engagement between farmers and their local communities are pertinent for ensuring a stable or growing population or indeed a provision of services. In this way, farmers and communities are mutually reinforcing social groups that are important for the environment and the local economy. Resilience in such local communities depends on the interconnectedness between the community, environment, and the local economy—all three sustainability dimensions. Resilience in these areas, therefore becomes something that is reminiscent of equilibrium resilience: Permanence or bouncing back to an 'imaginary' of normal with endogenous changes and adaptions, rather than being concerned with development and 'process', while resistance and change coexist (Ashkenazy et al., 2018; Paniagua, 2013).

Nonetheless, the concepts of 'sustainability' and 'resilience' are not meant to be used interchangeably. As Li et al. (2024) put it, the nuances intrinsic to rural development process "foreground latent sub-rational development models, such as resilient but unsustainable and sustainable but unresilient" (Li et al., 2024). This is interesting when considering resilience issues, particularly those that adopt an evolutionary approach to understanding regional or rural change, as the idea is founded in that these (rural) spaces are constructed

by social relations and human action. These rural spaces are in constant transition, whether experiencing divestments, investments, depopulation or population growth (Adisaputri et al., 2023). As Christopherson et al (2010) write, “Regions are manifestations of [human] actions and are in a constant process of transition” (Christopherson et al., 2010, p. 4).

3.2.3. Social-ecological resilience

Environmental problems, as we perceive them, are brought on by human activity and influences biophysical processes. As societies are interconnected on a global scale through our economic system—which by and large depend on ecosystems services, grand environmental problems are shared and amplified across regions (Adisaputri et al., 2023; Folke et al., 2010). Understanding social-ecological systems is hence crucial for shaping territorial governance (Adger et al., 2005). Knowledge and information of both the self-organized aspects of social-ecological systems, the design and interaction between them are key to understand social-ecological risks and to reduce uncertainty (Anderies et al., 2004). In social-ecological systems research, humans are considered part of nature, and is a major force in global change and ecosystems dynamics, both on a local level and the biosphere at large (Folke et al., 2010). For some scholars, ecological resilience is seemingly an ‘anti-statist’ concept, as it moves away from standard rules for understanding resilience and allows the concept to be more directly influenced by cultural norms and particular habits. However, this can lead to negative results for the adaptability of e.g., a community, as dominant discourses, even though they are grounded in cultural norms, may lead to a myopic approach, or indeed cognitive ‘echo-chambers’ and therefore an inability to adapt and adjust (Hassink, 2010).

According to Berkes and Ross (2013), social-ecological systems and resilience both grapple with a range of processes such as ‘adaptability’, ‘relationships’ and ‘learning’, ‘non-linearity’, ‘unpredictability’, ‘scales’, ‘renewal’, ‘system memory’, ‘disturbances’, and ‘feedback’. Such systems are interdependent and co-evolutionary (Ashkenazy et al., 2018). Moreover, they exist at many levels and this ‘panarchy’ is key to unpacking the systems’ dynamics as a whole, characterized by processes that cause ripple effects, and influence the system overall (Gunderson et al., 2002). Social-ecological systems, like rural systems, can exhibit nonlinear dynamics, where gradual changes in conditions can suddenly trigger abrupt and dramatic shifts in the system's structure and function (Folke et al., 2010; Rockström et al., 2009). For this reason, a central concept in the study of social-ecological systems is the notion of ‘tipping points’. Such tipping points represent critical thresholds beyond which the system loses its capacity to recover and reorganize, leading to the collapse of established patterns and the emergence of a new, potentially less desirable, state. Importantly, tipping points can be linked to long-term socio-economic development trajectories—slow burns—and may also be triggered by external shocks, including natural hazards (Di Giovanni and Chelleri, 2019).

3.2.4. Indicators of rural socio-economic resilience in rural areas

Measuring rural resilience presents a significant challenge, with various approaches being proposed. Some authors advocate using of multiple indicators (Briguglio et al., 2006), while others prioritize employment or GDP (Sensier et al., 2016). Alternative measures like unemployment rates or household incomes have also been used. Each indicator has strengths and limitations, with employment often viewed as a key indicator due to its social importance and stability in measurement practices (Coyle, 2015). Living conditions are closely tied to rural resilience and also serve as key indicator. A recent Eurofound report explores urban-rural differences in living conditions across the EU, considering material conditions, employment, human capital, and digital skills (Eurofound, 2023). While urban areas generally tend to have higher employment rates, greater tertiary educational attainment, and lower rates of youth not in employment, education, or training (NEET), as well as higher income levels and lower at-risk-of-poverty-or-social-exclusion (AROPE) rates, this pattern does not hold across all member states. In nine of the 27 EU countries—including the Netherlands, Sweden, Germany, Denmark, Malta, Finland, Austria, France, Belgium, and Italy—employment rates are actually higher in rural areas. Moreover, in many EU member states, the gap between urban and suburban employment rates is relatively small (Eurofound, 2023). A recent multi-factor analysis to measure levels of rural resilience in Northern Spain, Hierro and Maza (2024) find that the main factors limiting resilience are related to cultural interest, rural potential, natural endowment, and rural connectivity.

4. Characterizing rural resilience

The multifaceted nature of the concept of rural resilience manifests through its various presentations: at the levels of place, community, individual, and notably, over time. Despite the wealth of information, a uniform conceptualization of rural resilience remains elusive in the reviewed literature. The literature hints at inherent tensions between economic, social, and ecological resilience, aligning with the sustainability triangle. Spatial and temporal scales, place sensitivity, frame sensitivity, and social geographies add layers of complexity to the understanding of rural resilience. The temporal aspect is a noteworthy addition, suggesting the evolving nature of (rural) resilience. Acknowledging new rural realities introduces the idea of novel opportunities arising in tandem with the evolving concept.

4.1. Rural resilience as a process

It is clear from the extensive body of resilience literature that the nature of resilience as a concept is highly context-specific and interpretable. It can be applied to a variety of challenges, including security and cyberterrorism, climate change hazards and what otherwise might be interpreted as economic development following continuous shocks or sudden changes (Bassett et al., 2013; Holm and Østergaard, 2015). At the same time, it cannot be seen as a simple dichotomy between no change and complete change, neither do economic structures—or other relevant structures for resilience—change overnight (Martin and Sunley, 2015).

For rural resilience, we zoom down and get a more refined picture of the case at hand, but also here we may encounter a plethora of notions about the 'rural'. What is common to all is that by bracketing 'rural' we get ideas of slow continuity, nature, and traditions. These imaginaries are also coupled to our ideas of 'community', which tends to bring forth positive notions of solidarity and belonging—which can be problematic as it may indicate that those deeming whether a rural area is resilient or not, are outsiders, and therefore cannot know the true intricacies of a rural community's strengths and weaknesses. In much of the literature, rural resilience is seen as the "capacity to ensure continuity" (Paniagua, 2013). However, the 'rural' often presupposes an area that is a need of socio-economic 'improvement' (Ashkenazy et al., 2018), and in this way 'rural resilience' would imply opportunities to improve, to modernize and to become more progressive. These notions carry normative values, and questions the level of agency we assign to the locality in question. To understand such normative assumptions, values and policy priorities that underlie 'resilience' and 'resilience interventions', and what solutions comes with these resilience interpretations and interventions, is to understand more clearly our conceptualizations (Paniagua, 2013).

It is also pertinent to investigate the interpretation of the shocks and how these are understood in a wider policy context, and currently when we speak about resilience, we are privileging the idea of a 'return to normal' (Martin and Sunley, 2015). "The story that is told about why an adverse regional event occurred", Christopherson et al. (2010) write, "is critical to what will be considered successful adaptation or resilience" (Christopherson, Michie, & Tyler, 2010, p. 4). What resilience means therefore depends on the case, the dominant discourse, and a clear joint understanding of what 'normality' and future trajectories ought to be. Resilience is "not an either/or feature or outcome, but a complex process that admits of many possible combinations of change and continuity" (Martin and Sunley, 2015, p. 10). Furthermore, we should not forget that rural areas, like cities and states, are not autonomous by nature but connected through various levels of governance and global influence. As Martin and Sunley (2015) write, "the determinants of local resilience may not be local in origin or nature" (Martin and Sunley, 2015, p. 8).

4.2. Rural resilience as an enabler of sustainable rural development

Closely tied to the nature of industrial structures, the natural resources employed in rural economic systems, the sense of community, and the strength of that community, we can assert that rural resilience must be comprehended within the framework of three sustainability dimensions, encompassing economic, environmental, and societal aspects of sustainable development. This intimate connection appears

particularly robust here compared to territorial, national, or regional resilience, owing to the scales involved and the direct interaction between these levels during shocks or crises. To a large extent, rural resilience builds on the interface of other types of resilience, so that “changes in one domain of resilience can affect resilience in the other domains, and consequently also in the rural system as a whole” (Heijman et al., 2019, p. 197).

From our findings, resilience cannot be solely anchored in a single factor, conceptualization, or static notion. It is not exclusively linked to economic or social issues in isolation, nor ecological issues where humans are involved. As Heijman et al. (2019) put it, “the rural resilience perspective is based on, and consistent with, the idea that ecological, economic and cultural systems become increasingly entangled, and interactions between these systems are increasing in intensity and scale.” (Heijman et al., 2019, p. 196). Moreover, McManus et al (2012) argue that perceptions of the local economy, environment, and community are interlinked, and resilience is contingent on all three simultaneously, recognizing it as a dynamic process. Accordingly, policymakers can no longer focus solely on the environment or the economy; they must contemplate the social, economic, and environmental implications of their policies, their interconnections, and their impact on the overall level of local social and economic resilience (McManus et al., 2012).

4.3. A working definition of rural resilience

In rural areas, as at a regional or national level, we shift away from conceptualizing resilience in terms of equilibrium. Instead, we opt for an evolutionary understanding of resilience—a concept embodying a continuous process, as we cannot 'return' to a previous state in the ever-evolving system we find ourselves in. Understanding resilience as a *process* enables us to grasp why some regions may outperform others due to the constant evolution inherent in the system. Considering these aspects and the previous avenues explored in this paper, we come to a working definition of rural resilience as ***a contextual and spatially bound evolutionary process of future proofing that accounts for the interlinkages between the economic, environmental, and societal sustainability of the place, the community and the individual in a context of uncertainty and unpredictability***.

This definition accounts for persistence, transformability and adaptability requirements of socio-economic and community development processes within social-ecological systems (Li et al., 2019) and highlights that rural resilience operates within systems that are uncertain, complex, and non-linear (S. Davoudi et al., 2012; Zhu et al., 2025). At the same time, the definition highlights the need to ‘constructing’ something stronger. In any case, our definition advocates treating resilience critically and be aware and acknowledge the normative values that we prescribe to it in rural areas. Among other things, this is necessary in order to apply the notion consistently across rural areas across Europe, which are uneven and heterogenous. In other words, our definition is also perspective dependent, implying that what constitutes resilience will have different connotations to those who are experiencing the shock/disturbance, and those who are observing it—depending on their lens. Therefore, time and space remain important, as it influences our political understanding of what should and can be deemed resilient.

Ultimately, on a very practical level what rural resilience means in each context requires raising and answering some key questions for careful deliberation: What are we trying to preserve or make resilient, for whom and to what cost? Who are we addressing in rural resilience—e.g. those who live there, those who depend on rural inputs like raw materials, or those who holiday in rural areas? What imaginaries are we responding to and acting on, and in what time and space are these imaginaries and normative values found? Finally, is rural resilience compatible with our current understanding of what regional and rural development is and should be, as it departs from a specific stance on what progress is?

5. A gender perspective on rural resilience

This section investigates rural socio-economic resilience through a gender lens by examining how labor market outcomes differ by gender and urbanization level across Europe. Women in rural areas face unique challenges—including limited access to resources, few employment opportunities, and heavy burdens of unpaid care—that potentially undermine both their personal well-being and the broader resilience of rural communities. By leveraging data from the European Union Labor Force Survey (EU-LFS) spanning the decade 2013 to 2023, we examine how the intersection of gender and degree of urbanization shapes three labor market outcomes: Being employed, working part-time work prevalence, and experiencing employment constraints due to caregiving responsibilities. In addition, we explore how employment outcomes at this gender and degree of urbanization intersection differ by the different welfare regimes adopted in Europe.

5.1. Introduction

Labor market integration of rural women stands out as a critical factor in maintaining the social and economic resilience of rural communities (Leibert, 2016; Shortall and Marangudakis, 2022; Unay-Gailhard, 2016; Wiest and Leibert, 2013). However, in rural regions, entrenched traditional gender roles often place women at a disadvantage, sometimes confining them to unpaid care work or precarious employment (Bock, 2015; de Pryck and Termine, 2014; Luca et al., 2023). Urbanization is posited as a potentially disruptive force that may challenge traditional gender norms. In urban settings, where opportunities and progressive gender ideologies are more prevalent, women may experience higher labor force participation (Evans, 2019). In contrast, rural areas often maintain conservative norms, potentially widening gender disparities (Bock, 2015; de Pryck and Termine, 2014). Broader national institutions, including welfare regimes, social policies, family policies and employment protection legislation, also influence female labor market outcomes (Esping-Andersen, 2009, 1990; Jaumotte, 2004; Kowalewska, 2023; Mandel and Semyonov, 2006), as do societal cultural norms (Boeckmann et al., 2015; Ferragina, 2020; Goedderz and Calanchini, 2023).

While the role of gender equality in promoting economic growth is well-documented (Cuberes and Teignier, 2014; Forsythe et al., 2000), its link to resilience remains insufficiently studied (Martini and Platania, 2022). This is especially evident in rural regions, where traditional family structures, gender roles, and limited access to resources disproportionately affect women, influencing their labor market participation and life trajectories (Bock and Derkzen, 2006; de Pryck and Termine, 2014; Evans, 2017; Franić and Kovačićek, 2019; Little, 2002; Luca et al., 2023). These dynamics are further compounded by migration patterns, as rural women often leave their communities in search of better opportunities in employment, education, and healthcare (Eurofound, 2023; Grimsrud, 2011; Wiest, 2016), exacerbating gender disparities in these regions. The scientific literature also emphasizes how urbanization disrupts traditional gender norms, promoting women's labor market participation through economic incentives, exposure to progressive roles, and access to forums that challenge established norms (Evans, 2019, 2018). However, the participation of women in the labor market and consequential outcomes are shaped by urbanization and by broader national institutional frameworks, such as welfare systems, social policies, family support policies, and employment protection laws (Esping-Andersen, 1990; Mandel and Semyonov, 2006), along with cultural and societal norms (Boeckmann et al., 2015; Goedderz and Calanchini, 2023). Despite the significant role of national institutions in shaping gender and rural labor market disparities, research on the interaction between urbanization and gender employment gaps, especially in cross-national European contexts, remains underdeveloped.

The central research question addressed in this chapter is twofold: How does the intersection between gender and rurality influence labor market outcomes in Europe?, and how do welfare state regimes (Esping-Andersen, 1990) moderate these interactions? The analysis adopts an intersectional approach by considering both the direct effects of gender and rurality, while also comparing outcomes across different European welfare regimes, namely Continental, Nordic, Southern and Eastern European.

5.2. Theoretical background

Although gender equality has gained recognition in economic literature, its relevance to regional science is insufficiently developed, as evidenced by the sparse contributions to this field (see, for example, Agovino et al., 2019; Correia & Alves, 2017; Noback et al., 2013; Ray et al., 2017). One important effort to address this gap was a special issue of the journal *Gender and Development*, in 2015 focusing on "Gender and Resilience". This issue highlighted the need to incorporate gender perspectives into resilience frameworks for a more holistic understanding (Smyth and Sweetman, 2015). However, the papers in the journal issue did not specifically explore how gender intersects with rurality in shaping resilience. Additionally, its emphasis on the Global South leaves a critical dimension of this relationship insufficiently addressed, particularly in the European context.

A gender perspective sheds light on rural women and men's unique experiences, challenges, and contributions in navigating socio-economic upheavals and fostering resilience within their communities. Historically, the prevailing perception of rural life often portrays traditional gender norms, where women are associated with unpaid domestic and caregiving tasks while men are seen as providers and leaders (de Pryck and Termine, 2014; Little, 2002). Understanding rural socio-economic resilience through a gender lens involves examining how gender dynamics intersect with factors such as access to resources, land tenure, employment opportunities, unbalanced migration, and social support systems, as well as how these structures shape women's lives. For example, rural labor markets often disadvantage women compared to men, marginalizing them as dependent producers, unpaid family workers, or as employees in low-paid and precarious jobs (Bock, 2015; de Pryck and Termine, 2014) further exacerbating gender inequalities in comparison to urban labor markets.

Rural regions typically demonstrate higher levels of gender inequality compared to urban region (Brandth, 2002; Evans, 2017; Luca et al., 2023). Women in rural regions encounter extra difficulties, for example the employment gap between genders is more pronounced in these areas (Eurostat, 2023a), and rural inhabitants are less inclined to strongly support gender equality (Eurofound, 2023). Similarly, family values differ between rural and urban settings. In many rural areas, traditional family structures and conservative values are more common, though their extent varies by country, and region. Close-knit familial bonds are emphasized, with extended families often living nearby and actively involved in each other's lives. The portrayal of gender roles in rural areas often reinforces the notion that these traditional roles are an inherent aspect of rural living. In many rural contexts, women are primarily associated with unpaid domestic and caregiving duties, while men are seen as providers and leaders (Brandth, 2002; Eurofound, 2023; Little, 2002; Luca et al., 2023). Nonetheless, gender equality can vary across rural communities based on factors like geographical location, cultural traditions, and generational attitudes. For instance, a recent report by Eurofound (2023) shows that while gender perceptions are generally more conservative in rural regions across most surveyed countries, the variation in these perceptions between countries is more substantial than the rural-urban divide (Eurofound, 2023). In addition, gender dynamics in rural areas are undergoing significant changes (Sireni, 2008). Increased participation of women in the workforce has made paid employment central to women's identities (Bock and Derkzen, 2006), while male identities are evolving to include traditionally feminine traits such as caregiving (Bye, 2009). These shifts impact both genders, with notable differences in remote rural areas across Europe (Bock, 2015)[2].

Traditional gender roles in rural areas can affect migration patterns, influencing both who stays and who moves in. These norms contribute to out-migration and hinder return migration, and shape the demographic composition of rural communities by influencing who chooses to remain in or relocate to these regions (Grimsrud, 2011). This issue has gained attention in recent years focusing on the gender-imbalanced

[2] However, these the rural-urban divide in gender values are not specific for the European or Western contexts. A description of these processes in the Global South can be found in the work of Evans (Evans, 2019, 2018). In particular, Evans (2019) examines how urbanization influences gender equality in Cambodia, proposing a theory based on three key factors: self-interest, where economic incentives encourage women to work outside the home; exposure, in which cities showcase women in influential roles; and association, through urban spaces providing access to information and forums to challenge norms. They highlight the "disruptive power" of cities in enabling women to reshape traditional gender values (Evans, 2019).

emigration from rural areas, particularly the uneven migration patterns from rural to urban regions, which is especially pronounced in Europe. This phenomenon, highlights the need to examine the consequences of such gendered migration trends (Camarero et al., 2016; Leibert and Wiest, 2016b; Wiest, 2016), which can have profound effects on community resilience and exacerbate existing gender disparities.

To understand the underlying causes of rural outmigration, factors such as economic inequality, limited job opportunities, inadequate infrastructure, and social isolation require consideration. Moreover, it is essential to account for the gendered aspects of migration decisions, recognizing how caregiving responsibilities, access to education and healthcare, and societal norms influence women's and men's migration behaviors differently (Wiest, 2016). Individuals living in rural areas are more prone to perceiving the services that they receive in the areas as poor, specifically when it comes to hospital care and childcare (Eurofound, 2023), with women in rural areas are more dissatisfied with educational and employment opportunities in their regions (Wiest, 2016). Such dissatisfaction might aggravate outmigration of women considering their care giving role. This suggests that gender unbalanced migration should be incorporated in broader discussion of rural socio-economic resilience, as migration results from and drives socio-economic changes in these areas.

EU policies promote integrating gender considerations into rural development policies to retain women and ensure sustainability. In particular, Europe's Long Term Vision for Rural Areas (LTVRA) recognizes the key role that rural women play to strengthen social resilience and commits support to incentivize the participation of women in labor markets and the promotion of entrepreneurship, participation in decision making and investments in work-life balance services, such as early childhood education and care, as well as services for older people (EC, 2021b). A review of literature and policy documents shows that most rural development plans prior to the approval of the LTVRA fell short in realizing this aim. The transformative potential of rural women as agents of community resilience can be further unlocked by integrating a gender lens into rural development policies, programs and plans (ČerniČ IsteniČ, 2015; T. Oedl-Wieser, 2015; Shortall, 2008; Wankiewicz, 2014). However, frequently rural policies only include separate projects for women without addressing broader gender inequality perspectives (Bock, 2015).

Gender mainstreaming emerges as a strategy to overcome the limitations of equal opportunity approaches. It integrates gender considerations into all stages of policymaking, ensuring that gender equality is a primary objective across all policy areas, not a secondary issue. This approach holds every policy domain accountable for advancing gender equality (Abels and Mushaben, 2012). Nonetheless, studies assessing the effectiveness of gender mainstreaming in different European countries find that its transformative impact has been limited (Bock, 2015; Theresia Oedl-Wieser, 2015; Shortall, 2015). Bock (2015) acknowledges some benefits for rural women in terms of employment and services but argues that their challenges are often dismissed as "women's problems." In the case of Austria, it has been argued that "Rural Development Programs and processes in Austria are preserving and perpetuating traditional gender roles and patriarchal structures in rural society" (Theresia Oedl-Wieser, 2015).

These debates underscore the limited research on the relationship between gender and economic resilience, with only a few studies addressing this connection specifically (Martini and Platania, 2022). There is growing evidence that rural regions experience higher levels of gender inequality, with gender norms playing a more significant role in shaping women's lives in these areas (Evans, 2017; Luca et al., 2023). Much of the scientific literature on gender in rural areas focuses on developing countries, with a notable gap in research on these dynamics in developed contexts, particularly in Europe. While living conditions and socio-economic status are valuable indicators of rural resilience, gender differences remain largely underexplored in studies focusing on these dimensions. For instance, although the Eurofound report highlights socio-economic disparities, it pays little attention to the gendered factors influencing individuals' living conditions in rural areas (Eurofound, 2023).[3] This chapter takes a more nuanced analysis that incorporates gender perspectives into discussions of rural resilience. The following subsection will examine how gender dynamics in rural areas might shape women's labor market outcomes, taking into account cross-national differences and regional variations.

[3] The only context in which gender differences are explicitly addressed is in the discussion of cultural variations, drawing on findings from the European Values Survey (EVS) regarding gender norms. These results indicate that, on average, individuals residing in rural areas exhibit more traditional gender values. This trend is consistent in 18 out of the 20 countries included in the analysis (Eurofound, 2023).

5.2.1. Gender gap in labor market outcomes by rurality

As noted, traditional cultural norms and family structures in rural areas play a significant role in shaping women's labor market participation, career prospects, and life trajectories (Copus et al., 2006; Evans, 2017; Franić and Kovačićek, 2019; Luca et al., 2023). Female labor market outcomes are also influenced by national and regional policies, including welfare regimes, social policies, family policies, and employment protection legislation (Esping-Andersen, 2009, 1990; Jaumotte, 2004; Kowalewska, 2023; Mandel and Semyonov, 2006), as do societal cultural norms (Boeckmann et al., 2015; Ferragina, 2020; Goedderz and Calanchini, 2023). Collectively, these factors influence labor force participation (Cipollone et al., 2014; Olivetti and Petrongolo, 2016), employment patterns (Olivetti and Petrongolo, 2016), labor supply—e.g., working hours and part-time employment (Jaumotte, 2004; Matteazzi et al., 2018), occupational segregation (Mandel and Semyonov, 2006), and wage disparities (Matteazzi et al., 2018; Olivetti and Petrongolo, 2016). These interrelated factors define the opportunities and constraints that women encounter in the labor market.[4]

In some rural European regions, conservative gender roles persist, restricting the social acceptance of women's participation in the workforce. In contrast, other areas adopt more progressive family models, such as dual-earner households, fostering greater gender equality in employment. The proportion of employed women within specific age groups provides a useful indicator of their integration into regional labor markets, reflecting broader societal changes in rural Europe. Notably, these shifts are aligned with evolving gender roles and the transition to a post-industrial economy, which increasingly prioritizes knowledge-based and service-oriented industries (Wiest, 2016). These transformations underscore the intersection of cultural, institutional, and economic factors in shaping rural women's workforce participation.

Research on the relationship between urbanization and gender disparities in employment remains limited, particularly in cross-national comparisons within Europe. Franić and Kovačićek (2019) illustrate the significant disadvantages rural women face in the EU compared to their urban counterparts and rural men. They argue that despite efforts to address these disparities, rural women continue to encounter substantial employment barriers. Within the EU, women represent 45% of the economically active rural population, with around 40% employed on family farms. Informal employment, especially in agriculture, is widespread, although participation rates vary across Member States. Notwithstanding increased employment of women in rural areas between 2013 and 2017, progress in closing gender gaps remains inadequate (Franić and Kovačićek, 2019). In 2023, the highest female employment rates in rural areas were observed in Iceland (82.4%), Estonia (82.3%), Germany (81.8%), Sweden (81.3%), and Switzerland (81.3%). In contrast, the lowest rates were recorded in Romania (49.5%), Greece (56.4%), Italy (57%) and Serbia (60.9%). Gender employment gaps were particularly pronounced in Southern and some Eastern European countries, including Romania, Greece, Italy, Malta, Serbia and Poland. The smallest gender disparities were noted in Nordic countries and certain Eastern European nations, such as Finland, Estonia, Latvia and Lithuania (Eurostat, 2025).

While Franić and Kovačićek (2019) highlight the persistent gender disparities in rural areas, studies in specific national contexts offer more detailed insights into how urbanization and other factors influence gender gaps in employment. For instance, Noback et al. (2013) analyzed gender-specific employment rates in Dutch municipalities in 2002, finding that the gender employment gap narrows with higher levels of female education and urbanization. Conversely, it widens in areas with a higher proportion of residents in caregiving age. The study suggests that the smaller gender gap in urban areas is due to higher female employment in these regions, with no significant urban-rural differences in male employment rates. Furthermore, urban settings in the Netherlands are characterized by the "combination model," where partners more equally share both paid and unpaid labor, contrasting with the dominant "one-and-a-half model" seen elsewhere (De Meester et al., 2007). Overall, higher urbanization levels correlate with increased female employment (Noback et al., 2013).

[4] It should be noted that while regional economic structures – such as dominant industries or historical specializations – undoubtedly also shape local labour market opportunities for women, especially in rural areas, the focus of this paper is on international differences in rurality and gender gaps. As such, it does not attempt to disentangle the effects of specific regional industries.

Haandrikman et al. (2021) examined geographical variation in gender contracts in Sweden, using six family, politics, and labor division indicators. Traditional gender roles often feature a divided labor market, with men typically being the primary earners. They found that rural areas are characterized by what they call "traditional gender contracts", with the lowest scores across all gender-related indicators. Fathers are less likely to take parental leave, and women are less likely to be highly educated, employed or earn higher incomes in these areas (Haandrikman et al., 2021). Similarly, a study in Norway showed that urban environments have distinct effects on the working hours of men and women. In compact cities, where workplaces and services are closer together, women are better positioned to work longer hours than those in suburban or peripheral areas. This suggests that urbanization facilitates greater work opportunities for women, particularly in terms of work-life balance and job flexibility (Hjorthol and Vågane, 2014). In a study focusing on the role of local institutions in Italy, Agovino et al. (2019) find that the quality of institutions significantly affects labor market participation for both genders, although it does not impact the gender participation gap. The authors highlight that access to public childcare services plays a crucial role in supporting women's labor market involvement.

The studies discussed here indicate that traditional gender norms in rural areas are often associated with lower female labor market participation compared to men. These conservative perceptions are also likely to perpetuate gender disparities reflecting higher male employment rates in rural settings. This could be one reason for the larger employment gaps between men and women in rural areas compared to urban ones. However, these disparities are expected to vary across European countries, influenced by differing social and cultural norms, welfare systems and family-work policies. For instance, female employment rates in rural areas are predicted to be higher in Nordic countries, where universal family policies and care mechanisms might mitigate the effects of urbanization, compared to Southern and Central European countries, where these policies are more limited. In contrast, the interaction between urbanization and gender in labour markets in Eastern European countries remains less clearly defined, requiring further exploration.

5.3. Comparison strategy and expectations

The LTVRA defines four Flagship Actions for Resilient Rural Areas. One of those is named "Promoting Social Resilience and Women in Rural Areas", which specifically addresses gender aspects as a key to enable social resilience in EU rural areas. This flagship action aims to enhance rural women's entrepreneurship, leadership roles, and work-life balance support through the European Care Strategy, alongside targeted networking and research activities. The Strategy emphasizes two main gender-focused areas: supporting care services and promoting women's involvement in decision-making. The European Social Fund Plus (ESF+) also finances efforts to increase women's employment opportunities across Member States, including rural regions. These efforts include actions fostering a gender-balanced workforce, ensuring equal working conditions, and improving work-life balance with access to affordable care for children and other dependents (European Commission, 2021).

While addressing rural resilience and gender equality, it is essential to consider the varying definitions and classifications of rural and urban areas, as these distinctions play a crucial role in understanding the socio-economic dynamics and challenges faced by rural communities across Europe. The boundary between rural and urban areas is not always clear since the urban-rural spectrum can include metropolitan areas, capital regions, cities, medium-sized towns, small towns, peri-urban zones, rural regions and remote areas. This classification varies between countries and evolves over time as the analytical and policy priorities and perspectives change. Such definitions may be based on minimum population thresholds, population density, administrative boundaries, workforce employment in agricultural or non-agricultural sectors, travel times to set sizes of settlements, or the availability of specific infrastructure like health and education facilities (UN, 2019). Despite the limitations intrinsic to territorial typologies, in this work we stick to Eurostat's Degree of Urbanization (DEGURBA) classification. This is a very established territorial typology that was introduced in 1991. In its simplest form, it classifies local administrative units level 2 (LAU2) into '*thinly populated areas* (rural areas)'; '*intermediate density areas* (towns and suburbs/small urban areas)', and '*densely populated areas* (cities/large urban areas)', according to the share of local population living in urban clusters and in

urban centers (Dijkstra et al., 2019).[5] However, DEGURBA has limitations in capturing the heterogeneity of rural areas, particularly regarding economic structures, labor market characteristics, and accessibility to services, which might impact employment dynamics (OECD, 2020). For example, rural areas that are geographically remote may face distinct challenges compared to those integrated into urban economies, yet these differences are not always well reflected in DEGURBA classifications (Dijkstra and Poelman, 2014). While acknowledging these limitations, we are still constrained by the information contained within the EU-LFS microdata files, which utilize the DGURBA classification system.

5.4. Data, variables and methods

5.4.1. Data and sample

The data used in this study, including dependent variables and predictors, are sourced from the European Labour Force Survey (EU-LFS). Specifically, EU-LFS data from 2013, 2018, and 2023 are used to compare labor market outcomes between men and women in rural and urban areas across countries, while controlling for individual characteristics. The EU-LFS is a standardized, large-scale, cross-sectional household survey that provides quarterly insights into labor market participation for individuals aged 15 and older, including those outside the labor force. It captures a wide range of information for all members of the household, including employment status, occupation, education, and other socio-demographic and socio-economic attributes. Currently, the EU-LFS microdata for scientific purposes (Eurostat, 2024, pp. 1983–2023) includes data for all EU countries, along with Iceland, Norway, Switzerland, and the United Kingdom (up to the third quarter of 2020).

The decision to focus on the years 2013, 2018, and 2023 was informed by several considerations. First, 2023 represents the most recent year for which data is available. Second, 2013 was selected as a reference point to have a ten-year time frame for analysis. Lastly, 2018 was chosen as mid-point between 2013 and 2023, ensuring a balanced temporal framework for analysis. The sample includes between almost 1.5 and over 2.5 million individuals annually, over 220 thousand participants are women living in rural areas in 2023 (which is the smallest sample of the selected three annual samples). The sample by country and year ranged from about 3900 in Latvia to over 230000 in Italy. The smallest sample of women in rural area is that of Iceland in 2023 amounting to almost 700 women. Our sample was restricted to individuals in their prime working ages (25-64) with complete data for all relevant variables in the models. Similarly, we decided to exclude Malta from the study due to the very small number of cases of sampled women in rural areas (fewer than 100 in 2023). We also excluded Romania due to unstable estimates, which left 27 countries for analysis. Appendix Tables 1.1 and 1.3 in Annex 2 present descriptive statistics of the variables included in the analysis and sample sizes by country for the full and employed samples, respectively.

5.4.2. Dependent variables

Labor market outcomes were assessed using three variables. The first variable, **employment**, is a dummy variable that indicates whether individuals are employed or unemployed/inactive, according to the International Labour Organisation (ILO) definition (Eurostat, 2023c). This variable encompasses the entire analytical sample of individuals in their prime working age (hereafter referred to as full sample). The second variable is an indicator for **part-time employment** which is derived from self-reported data regarding the level of employment during a typical week (FTPT). This variable is calculated on the sample of employed individuals (hereafter referred to as employed individuals' sample). The third dependent variable is an indicator for **care responsibilities**. The literature highlights the increased burden of care responsibilities on women in shaping their work supply (De Meester et al., 2007). To further explore this issue and assess how it is associated with the extent of employment and part time work. The information on care responsibilities is derived from

[5] Since 2012, there has been an improved methodology for measuring metropolitan areas., It defines 'cities' (densely populated), 'towns and suburbs' (intermediate density), and 'rural areas' (thinly populated) using geographical contiguity and population density, measured with minimum population thresholds applied to 1 km² grid cells (for further details, see: Dijkstra et al., 2021, 2019; Duleep et al., 2020; Eurostat, 2023b).

responses to the following question in the EU-LFS: *"Is the person not searching for a job or working part-time due to specific care responsibilities?"* The response options were (1) Suitable care services for children are not available or affordable; (2) Suitable care services for ill, disabled, elderly are not available or affordable; (3) Suitable care services for both children and ill, disabled and elderly are not available, or affordable; (4) Care facilities do not influence decision for working part time or not searching for a job. This variable was transformed into a binary indicator, assigning a value of one if the response indicated the presence of any care responsibility (answers 1 to 3) and zero otherwise. This variable is calculated for the full sample of individuals in their prime working ages.

5.4.3. Independent variable

Our main independent variables are sex and the Degree of Urbanization (DEGURBA). Sex is self-assessed and assumes the values of (1) female and (2) male.[6] We recode this to (0) male and (1) female. As described above, DEGURBA distinguishes individuals based on three levels of urbanization of the place in which they live. The categories of DEGURBA are (1) Cities (Densely populated areas), (2) Towns and suburbs (Intermediate density areas), and (3) Rural areas (Thinly populated areas). This classification refers to the degree of urbanization of the municipality where the respondent resides and is included in the dataset. In the analysis we focus on the comparison between cities and rural areas.[7] The second independent variable is that of **gender**.

5.4.4. Controls

In all models, controls were incorporated for demographic characteristics, including age, parental status, having a partner in the household,[8] and the highest level of education attainment, categorized into three groups: (1) lower than secondary education, (2) upper secondary education, and (3) third-level education, which encompasses both academic and non-academic tertiary education.[9] Additionally, given that employment levels among migrants are often significantly lower than those of native-born individuals (OECD and European Commission, 2023), migrant status –defined by place of birth– was included as a control variable. Individuals residing outside their country of birth were classified as migrants. Appendix Tables 1.1 and 1.3 in Annex 2 present descriptive statistics of the variables used in the analysis for the full and the employed individuals samples, respectively, by country and year. Appendix Tables 1.2 and 1.4 in Annex 2 show those descriptive statistics further broken down by degree of urbanization (DEGURBA) and gender.

5.4.5. Methods

Since all dependent variables in this study are dichotomous, we estimated a series of logistic regression models. All models include the same set of control variables and adjust for the complex sampling design of the EU-LFS, including unequal selection probabilities and non-response, by applying the annual cross-sectional weight (COEFFY) [10] in accordance with the EU-LFS user guidelines.

For individual *i* in country *c* and year *t*, the probability of observing outcome $Y_{ict} = 1$(e.g., being employed, working part-time, or having care responsibilities) is modeled as:

$$\begin{aligned}\Pr\left(Y_{ict} = 1 \mid \mathbf{Z}_{ict}\right) \\ = \text{logit}^{-1}(\beta_0 + \beta_1 \text{Female}_{ict} + \beta_2 \text{intermediate}_{ict} + \beta_3 \text{Rural}_{ict} \\ + \beta_4(\text{Female}_{ict} \times \text{intermediate}_{ict}) + \beta_5(\text{Female}_{ict} \times \text{Rural}_{ict}) + \boldsymbol{\gamma}^{\top}\mathbf{X}_{ict})\end{aligned}$$

[6] In this report we refer to self-declared sex as the gender, recognizing that this definition is more inclusive. In addition, it should also be noted that there is some variation between countries regarding the definition of this question in the EU-LFS questionnaire.
[7] Further details about the DEGURBA classification are available from (Dijkstra et al., 2019).
[8] Note that the variable parental status and having a partner in the household are based on constructing the family relation within the household. Information on parental status was not available for Norway, Iceland, and Switzerland, implying that the models for these countries do not include this control variable.
[9] This classification corresponds to the ISCED 2011 aggregated levels of educational classification (Eurostat, n.d.).
[10] It is important to note that the design did not incorporate strata (STRATUM) or survey cluster information, as these variables are not available in the scientific data files.

Equivalently, the model can be written in log-odds form as:

$$\log\left(\frac{\Pr(Y_{ict}=1)}{1-\Pr(Y_{ict}=1)}\right) = \beta_0 + \beta_1 \text{Female}_{ict} + \beta_2 \text{intermediate}_{ict} + \beta_3 \text{Rural}_{ict} + \beta_4(\text{Female}_{ict} \times \text{intermediate}_{ict}) + \beta_5(\text{Female}_{ict} \times \text{Rural}_{ict}) + \boldsymbol{\gamma}^{\top}\mathbf{X}_{ict}$$

where:

- Y_{ict} is a binary outcome variable;
- Female_{ict} is a dummy variable equal to 1 for women and 0 for men (reference category);
- $\text{intermediate}_{ict}$ and Rural_{ict} are dummy variables capturing the degree of urbanization (DEGURBA), with urban areas ("Cities, densely populated areas") as the reference category;
- $\text{Female} \times \text{intermediate}$ and $\text{Female} \times \text{Rural}$ are interaction terms capturing gender-specific differences in the association between urbanization and labor market outcomes;
- $\mathbf{X}_{ict}$ is a vector of control variables (described above), and $\boldsymbol{\gamma}$ is the corresponding vector of coefficients;
- β_0 is the intercept.

The interaction terms are central to the analysis, as they allow the effect of place of residence on labor market outcomes to vary by gender. While the main effects of DEGURBA capture average differences across territorial contexts, the interaction terms identify whether these differences differ systematically between men and women.

Predicted values and presentation of interaction effects

After estimating the models separately for each country and year (81 models in total - 27 countries × 3 years), we computed predicted probabilities for each of the six gender–urbanization combinations (men and women in urban, intermediate, and rural areas).[11] [12] To facilitate interpretation of interaction effects, results are presented graphically using two dimensions:

- the **gender gap**, defined as the difference in predicted probabilities between men and women living in rural areas; and
- the **rurality gap**, defined as the difference in predicted probabilities between women living in urban and rural areas.

Plotting these two gaps jointly allows a direct visualization of the intersection between gender and place of residence. Results are first presented pooling all years, and subsequently disaggregated by year and by welfare regime groups (Continental, Southern European, Nordic, and Eastern European countries). [13] This classification follows established comparative welfare-state research on women's labor market outcomes (Chauvel and Bar-Haim, 2016; Esping-Andersen, 1990; Mandel and Semyonov, 2006; Schröder, 2013).

[11] Due to multicollinearity, models examining care responsibilities by rurality and gender, including interaction terms, could not be estimated for Cyprus (CY), Greece (EL), Lithuania (LT), Slovakia (SK) and Iceland (IS) in 2013 and 2018. These countries were omitted from the analysis of care responsibility.

[12] The model summary, including the coefficients from these regressions, are presented in appendix in Tables 2.1, 2.2, and 2.3, corresponding to the employment, part-time employment, and care responsibilities models, respectively.

[13] Due to the United Kingdom's exit from the EU, only one liberal country remains in the analysis—Ireland. Given Ireland's rural demographic and settlement patterns, which share notable similarities with those of Southern European countries (Copus et al., 2006), it was grouped into this category.

5.5. Results

For each dependent variable used in the analysis, the results are presented in three visuals. The first figure displays the results for all models, aggregated across all years and countries. This figure enables an examination of temporal trends and cross-country comparisons of the gender and rurality gaps. The Y-axis represents the gender gap, defined as the difference in predicted outcomes between men and women in rural areas, and the X-axis represents the rurality gap, defined as the difference in the predicted outcome between women in urban and rural areas. A value of zero on both axes indicates no gender or rurality gaps. Positive values on the Y-axis signify higher outcomes for men than for women in rural areas in gender comparisons, and positive values on the X-axis signify higher outcomes for rural women than for urban women in rurality comparisons. To facilitate cross-country comparison, two additional reference lines are included in the figure: First, stretching from left to right the mean gender gap in the predicted probability across all countries and years in the sample; second, stretching from bottom to top, the mean rurality gap for all countries and years in the sample.

The results for employment gaps in all countries and years are presented in Figure 4. In that figure, each country is represented by three data points, one for each sampled year. Figures 5, 8 and 11 display the results broken down by welfare regime for 2013 and 2023. In those figures, each country is represented by two data points, one for each of these years at the beginning and end of the evaluated time period. These figures present changes over time in rurality and gender gaps within each group of countries, aiming to classify both the patterns of these changes and the factors contributing to them (e.g., the situation of women in rural areas, men in rural areas and women in urban areas). Figures 6, 9, and 12 present the results disaggregated by welfare regime, for 2023.[14] These figures include two data points for each country. The red dot represents the gender gap for women in rural areas, relative to men in rural areas (plotted on the Y-axis), and the rurality gap for rural women relative to women in urban areas (plotted on the X-axis), which was presented earlier. The blue dot indicates the counterfactual outcome, i.e. the gender gap for women in urban areas compared to men in urban areas (on the Y-axis), and the rurality gap for men, comparing rural and urban men (on the X-axis). The distance between the two dots represents the *difference-in-difference* in both dimensions. This reflects the intersectional effects of gender and rurality that are central to this analysis. A larger distance indicates a greater gap (generally a disadvantage) for women in rural areas compared to the other three groups: rural men, urban women, and, by extension, urban men. For guidance, a sample plot including most of the visual elements described above is provided in Figure 3.

[14] The results for the years 2013 and 2018 are available in the Figures included in Annex 2.

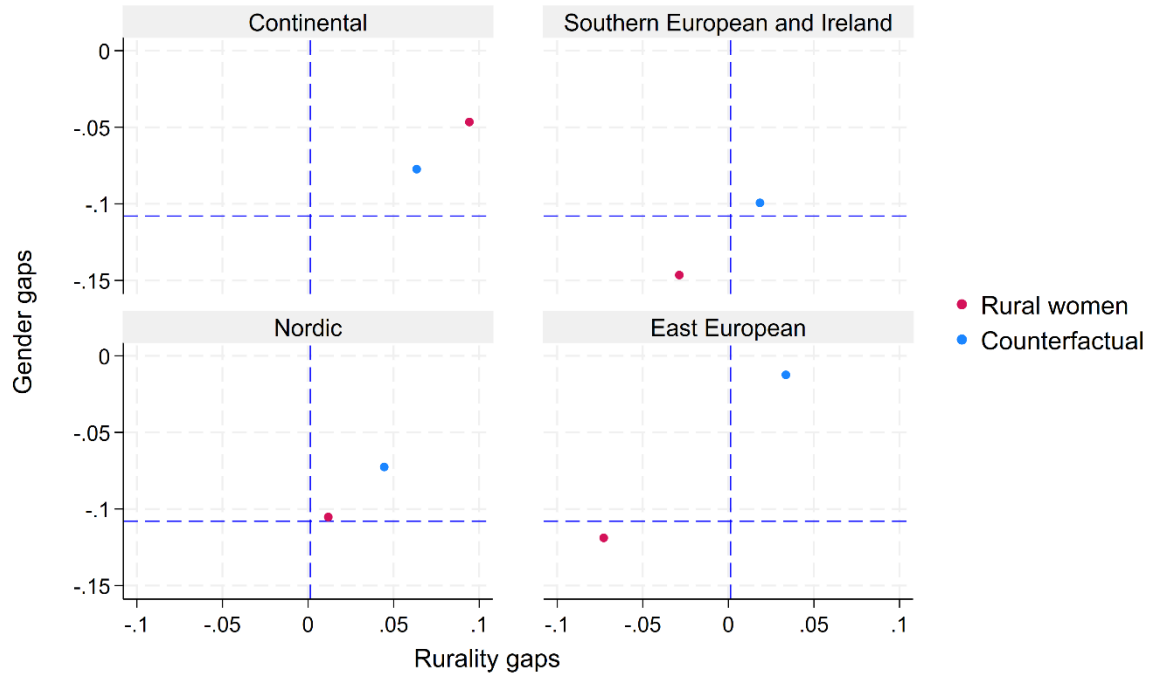


Figure 3: *Exemplary plot of gender and rurality gaps by welfare. Dashed blue horizontal line corresponds to the average gender gap, and the vertical line correspond to the average rurality gap for all years and countries.*

5.5.1. Employment

Figure 4 presents the predicted probability gaps in employment for all countries and years.[15] The average gender employment gap (marked by a horizontal dashed line) in rural areas across countries is approximately 11.0%, indicating that women in rural areas are generally less likely to be employed compared to men in the same areas.[16] However, there are substantial cross-country variations in the size of these gender employment gaps. The average rurality gap (indicated by a vertical dashed line) across all countries and time points is close to zero, suggesting that, on the whole, women in rural areas of Europe are not significantly less likely to be employed than women in urban areas when controlling for other factors. However, there are notable differences between countries.

Some countries, such as Italy, Spain, and Poland, exhibit large gender and rurality gaps. In contrast, countries such as Austria, Germany, and Belgium show relatively small gender gaps and a rurality advantage i.e., rural women are more likely to be employed than their urban counterparts. Although some countries fall into the quadrant of small gender gaps and rurality disadvantages (such as Lithuania and Latvia), the opposite scenario—i.e. small gender gaps with rurality advantages—is less common, with Greece being an exception.

On average, the gender employment gap in rural areas across the examined countries decreased from 11.5% to 10.3%, representing a modest decline.[17] However, significant cross-country variation in the patterns of change underscores the need for a more nuanced and in-depth analysis. In some countries, a reduction in the gender employment gap in rural areas is evident, as observed in cases such as the Netherlands, Ireland, Austria, Luxembourg, Belgium, and Portugal (see also Appendix 4.1 in Annex 2).

[15] Appendix Figure 5.1 in Annex 2 present the same results by year.
[16] While both rural and urban women have lower employment rates compared to men in the same areas, the mean gender gap in urban areas across countries and years is smaller at 8.8% (not shown in the figure).
[17] Note that these percentages reflect the average annual values for gender gaps across countries, whereas the dashed horizontal line in Figure 2 represents the average values of gender gaps across all countries and years.

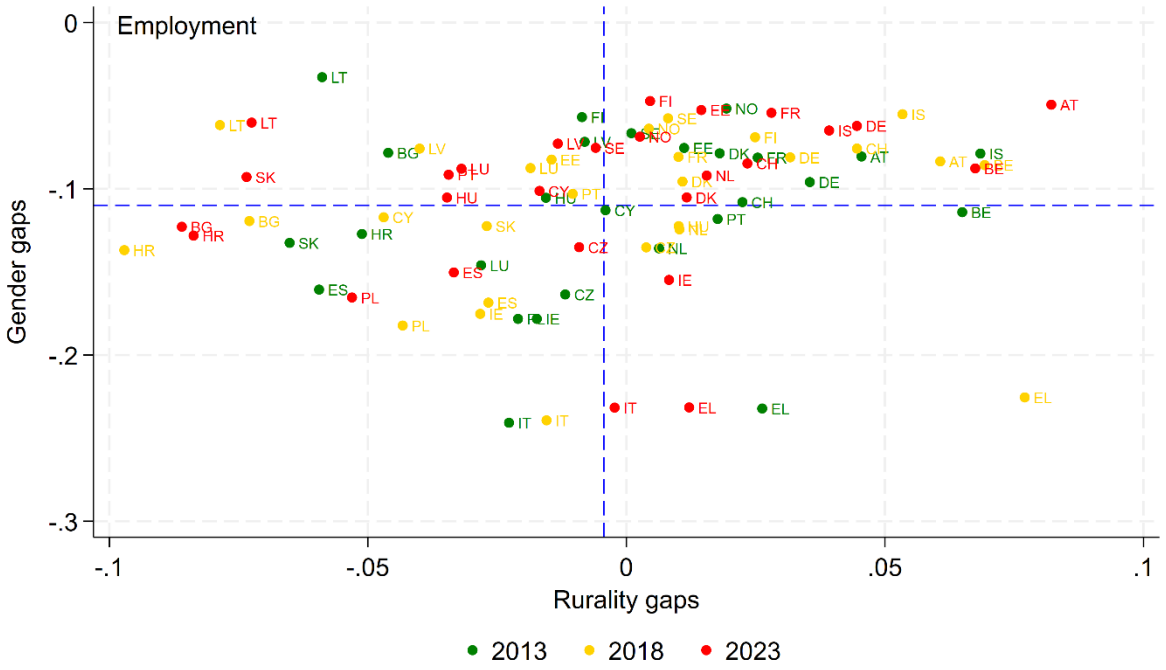


Figure 4: *Predicted probabilities of employment gaps by gender, rurality and year, 2013, 2018, 2023. Average marginal effects. Note: estimates based on logit models (EULFS 2013, 2018, 2023). Dashed blue lines correspond to the average gender gap (y = −0. 109) and the average rurality gap (x = -0.005) for all years and countries.*

Figure 5 presents the results of welfare regime comparisons between 2023 and 2013, showcasing trends over time. Figure 6 presents the gaps in the predicted probability of employment by welfare regimes for 2023, incorporating the counterfactual effect explained earlier. The same results for the years 2013 and 2018 are provided in appendices 5.1 and 5.2 in Annex 2, respectively.

When comparing the results over time (as presented in Figure 4), it is clear from the three figures that the mean rurality gaps for women across all countries is approximately zero. While this suggests that, on average, there are no significant rurality employment disadvantages for women across Europe, this average may mask significant differences between countries and welfare groups. Regional disparities are likely to be more pronounced, reflecting the varying effects of territorial conditions on women's employment outcomes across different contexts. This variation of country averages between different welfare regimes and over time is evident by looking at the patterns observed in Figure 5.

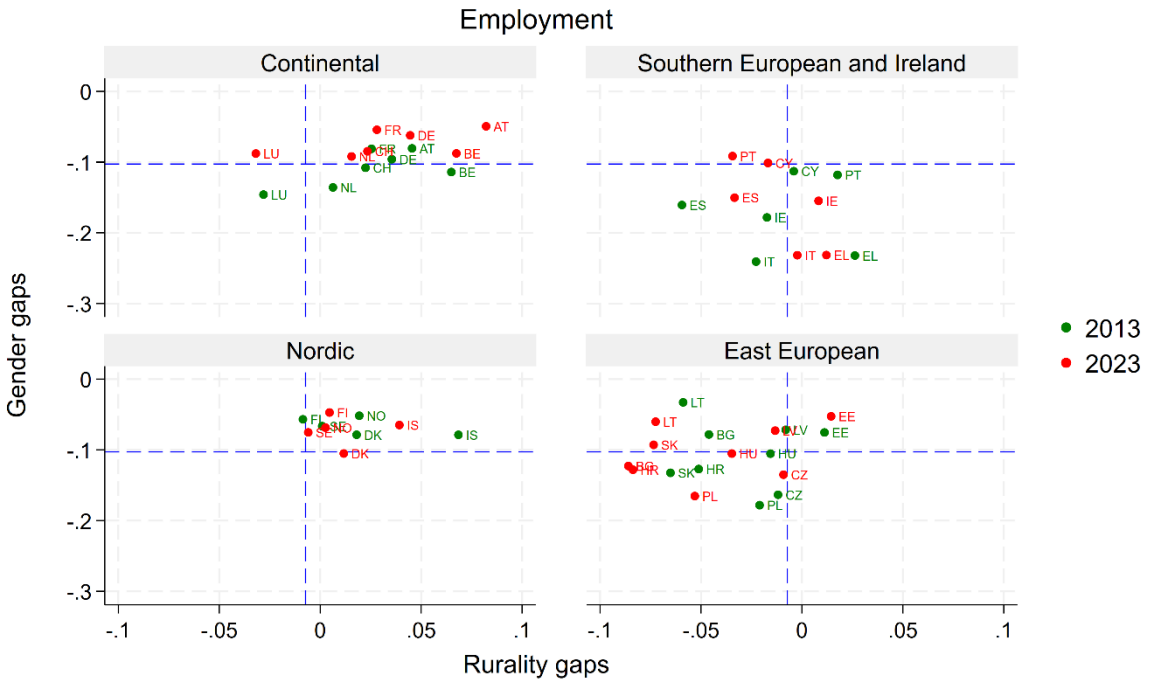


Figure 5: *Predicted probabilities of employment gaps by gender, rurality and welfare, 2013 and 2023. Average marginal effects. Note: estimates based on logit models (EULFS 2013, 2023). Dashed blue lines correspond to the average gender gap (y = -0.103) and the average rurality gap (x = -0.007) for all countries in 2023.*

In **Continental countries**, women residing in rural areas generally exhibit higher rates of employment compared to their urban counterparts, with Luxembourg being an exception. The gender employment gap in rural areas of Continental countries is smaller than to that of Southern and Eastern European countries. Over time, gender employment gaps in rural areas have declined in most Continental countries. Specifically, the mean cross-country gender employment gap in rural areas decreased from 10.9% in 2013 to 7.4% in 2023. By contrast, the gender employment gap in urban areas experienced only a slight decline, from 8.7% to 8.6% over the same period. The rural employment advantage for women has increased over time in Austria and Germany. Looking at the gaps between rural women and the counterfactual case (i.e., men's rurality gap and the urban gender gap presented in Figure 6) reveals that, in 2023, both men and women in rural areas display higher employment levels relative to those in urban areas, as reflected by positive values on the x-axis. Women in rural areas in four of the seven Continental countries—Austria, Belgium, Germany, and France—demonstrated a greater rural employment advantage than men. This is evidenced by the counterfactual scenario being located to the left relative to the employment outcomes for rural women (Figure 6). Gender employment gaps are not consistently wider in rural areas than in urban areas. In Austria, Belgium, Germany, and France, gender employment gaps are larger in urban areas, primarily due to lower employment levels among urban women compared to other groups in these countries.

Similar to Continental European countries, rural women in **Nordic countries** have exhibited slightly higher employment rates than their urban counterparts. However, this rural employment advantage has been less pronounced than in Continental countries and has diminished over time. Furthermore, the disparity between the outcomes for rural areas relative to the counterfactual is small, particularly in Norway. This can be attributed to higher employment rates for men in rural areas and narrower gender disparities in urban areas within these countries (Eurostat, 2025). For example, in Finland in 2023, the gender employment gap in urban areas was relatively small, at 1.6%, while in rural areas, it was 4.7%, reflecting higher employment rates among men in rural regions relative to urban areas (82.2% compared to 78.6%, see appendix Table 4.1 in Annex 2).

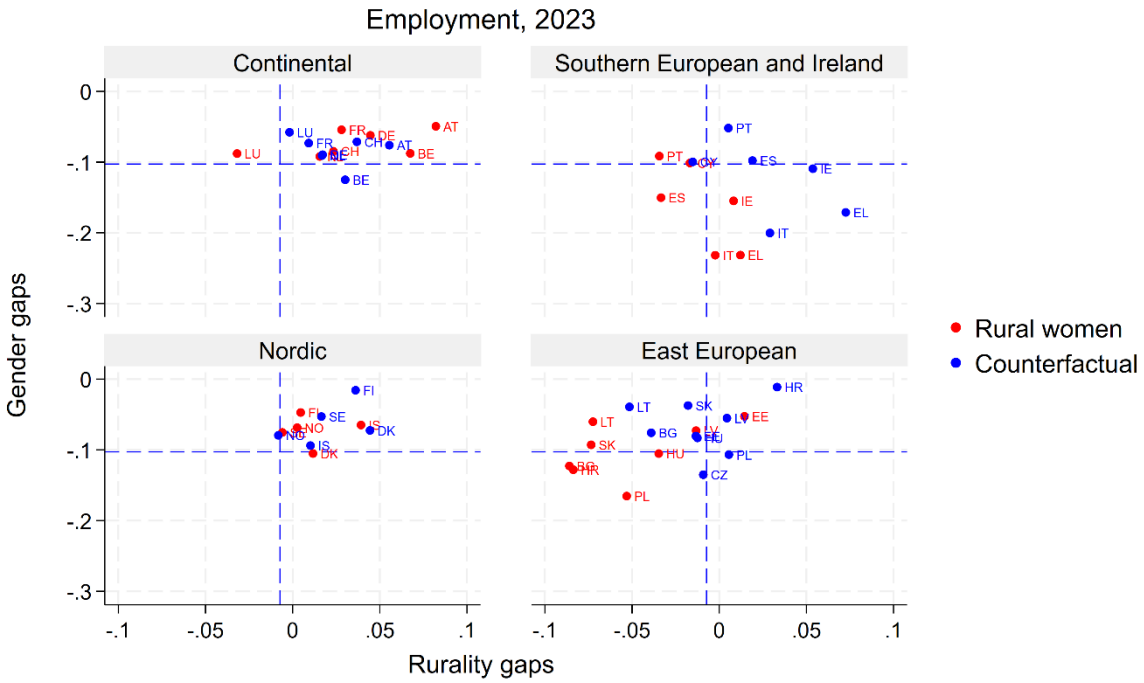


Figure 6: *Predicted probabilities of employment gaps by gender, rurality and welfare, 2023. Average marginal effects. Note: estimates based on logit models (EULFS, 2023). Dashed blue lines correspond to the average gender gap (y = -0.103) and the average rurality gap (x = -0.007) for all countries in 2023.*

The case of **Southern European countries** highlights significant trends in the employment dynamics of women in rural areas, marked by notable gender employment gaps, uneven changes in rural-urban disparities over time, and considerable deviations from the counterfactual. In all years examined, gender employment gaps for women in rural areas remain substantial. In 2023, gender employment gaps in rural areas range from 9.1% in Portugal to 23.2% in Italy and Greece, with an average gap of 16 % across all countries. Gender gaps in urban areas are lower, ranging from 5.2% in Portugal to 20% in Italy, with an average gap of about 12.2% (see Appendix Table 4.1 in Annex 2 for additional details). While the patterns observed in Figure 5 suggest that gender gaps in rural areas show a small decline over time in Southern European countries, these figures obscure a significant increase in female employment in rural areas between 2013 and 2023. For instance, in Spain, the predicted probability of employment for women in rural areas rose from 50.9% in 2013 to 64.1% in 2023, a 13-percentage point increase. However, over the same period, the employment probability for men in rural areas also increased from 66.9% to 79.2%, reflecting a 12-percentage point rise, resulting in no relative change in the gender gap on average over time.

Examining the gaps in relation to the counterfactual (i.e. the rurality gaps for men and the gender gaps in urban areas), men in rural areas of Southern Europe are more likely to be employed than men in urban areas, while gender employment gaps are smaller in urban areas relative to rural areas (see Figure 6). This disparity reflects the combination of the highest employment levels being observed among rural men and the lowest levels among rural women, relative to all other demographic groups. Over time, however, a degree of convergence is evident, and is marked by a decline in rural-urban employment disparities (along the x-axis), particularly in Spain, Italy and Ireland, alongside a reduction in deviations from counterfactual (see Annex 2, appendix figures 5.1 and 5.2 for the results of 2013 and 2018, respectively). Additionally, the variation in rural employment gaps across Southern European countries has substantially narrowed over the years.

In **Eastern European countries**, rural women are generally at a disadvantage compared to their urban counterparts, except of women in Estonia. More pronounced rural disparities are evident in four of the nine Eastern European countries in scope—Bulgaria (8.7%), Croatia (8.4%), Slovakia (7.3%) and Lithuania (7.2%). In these cases, rurality appears to affect women's employment opportunities negatively. Additionally, in three Eastern European countries—Poland (16.5%), Bulgaria (12.3%), and Croatia (12.8%)—gender

employment gaps are substantial and fall below the average across countries, as indicated by the blue horizontal reference line (Figure 6). However, in Lithuania, Latvia, and Estonia, rural gender employment gaps are smaller relative to the above-mentioned countries, with gaps under 10%.

The changes observed over time in Eastern Europe reveal significant cross-country variation and underscore the importance of examining gaps relative to absolute numbers. In seven out of the nine Eastern European countries included in the study, the rurality gaps for women increased between 2013 and 2023. The most pronounced increases are observed in Bulgaria, Croatia, Hungary and Poland. This widening rurality gap is primarily attributed to the more rapid increase in employment rates among women in urban areas compared to rural areas. This does not imply a decline in women's employment in rural areas over time; rather, the growth in employment among the comparison group (e.g., women in urban areas) was significantly greater, leading to an apparent widening of the gap. For instance, in the case of Bulgaria, the predicted probability of employment for women in rural areas increased from 59.0% in 2013 to 69.3%, reflecting an increase of 9.3-percentage points. In comparison, the employment probability for women in urban areas rose from 63.6% to 76.9%, representing an increase of 13.2-percentage points. While rurality gaps have undergone substantial changes over time, gender gaps in Eastern European countries have shown less pronounced variation, with the mean gender gap remaining largely stable at approximately 1011%.

For Eastern European countries, a comparison between the main effect and the counterfactual for each country suggests that living in a rural area negatively impacts women's employment more than men's, although in three cases—Lithuania, Bulgaria, and Slovakia— it disadvantages both genders. In Lithuania and Bulgaria, men experience a rurality-related employment disadvantage of approximately 4–5%; with the equivalent disadvantage for women in these countries considerably greater at 7.2% and 8.6%, respectively. In most cases, rurality appears to have a more pronounced negative effect on women's employment outcomes compared to men. Compared to the counterfactual it is evident that in all Eastern European countries except of Estonia and Czechia, the gender gaps in employment are somewhat larger in the rural areas then in urban areas.

Overall, the results demonstrate that welfare regime might be meaningful in understanding women's employment levels in rural and urban areas, and compared to men. In Continental and Nordic countries, women in rural areas have an advantage over women in cities, even if the rural advantage for women in Nordic countries is somewhat smaller than in Continental countries. In contrast, women in rural areas of Southern Europe and Ireland face significant disadvantages compared to men, resulting in a larger gender gap. Additionally, Southern European countries show a substantial disparity between the situation of women in rural area and the counterfactual case (e.g., the gender gap in urban area and the rurality gap for men). While in Eastern European countries, there is significant variation in the situation of women in rural areas, in most cases, women in rural areas are substantially less likely to be employed than their urban counterparts.

5.5.2. Part time employment

Analyzing full-time versus part-time employment is crucial for understanding gender disparities in the labor market. Full-time jobs provide financial stability, benefits, and career advancement. In contrast, part-time employment is often associated with lower wages, limited job security, and fewer opportunities for progression. Research indicates that women in part-time roles are often concentrated in low-paid sectors and occupations (Manning and Petrongolo, 2008; Matteazzi et al., 2018; van Osch and Schaveling, 2020). Additionally, the significant cross-country variations in part-time employment reflect differences in wage-setting institutions and welfare systems (Anxo et al., 2007; Matteazzi et al., 2018; van der Lippe et al., 2011). Anxo et al. (2007) classify national approaches to 'time policies' into four broad models, each aligning with distinct welfare regimes. Nordic countries follow a *"universal breadwinner"* model, ensuring high female employment with minimal marginal part-time work. Southern Europe follows an *"exit or full-time"* model, with low female employment and limited part-time opportunities. The *"modified breadwinner"* model (e.g., France) is characterized by some mothers temporarily withdrawing from the labor market. Finally, in the "*maternal part-time work*" model (Germany, the Netherlands, and the UK), mothers experience a smaller reduction in employment rates compared to those in Mediterranean countries or France, but part-time work remains the norm for mothers, even as their children grow older. Nonetheless, the quality of part-time work varies significantly across countries. In the UK and Southern Europe, part-time employment is often concentrated in

low-wage sectors with poor job quality and limited career progression, negatively impacting hourly wages (Manning and Petrongolo, 2008; Matteazzi et al., 2018). In contrast, in the Netherlands and Germany part-time jobs have higher quality with better pay and status (Matteazzi et al., 2018). Figures 7 to 9 illustrate the predicted probabilities of part-time employment gaps.

Figure 7 shows the differences in the predicted probabilities of part-time employment across various European countries, segmented by gender and rurality gaps for 2013, 2018 and 2023.[18] The gender gaps in part-time employment probabilities, depicted along the vertical axis, indicate that in almost all countries, women are more likely to work part-time compared to men, with some countries exhibiting minimal gaps and others showing more pronounced differences. The average gender gap in part-time employment in rural areas is approximately 20%, indicating that women in these regions are significantly more likely to engage in part-time work than men. This finding is not unexpected, as previous research has demonstrated that, in general, women tend to have higher levels of part-time employment than men (Matteazzi et al., 2018). The rurality gaps, shown along the horizontal axis, reflect the differing impacts of the degree of urbanization on part-time employment probabilities, with positive values indicating higher probabilities of part-time employment for women in rural areas compared to urban areas. The mean rurality gap across all countries and years is approximately 3.5%, suggesting that women in rural areas are more likely to work part-time than in urban areas.

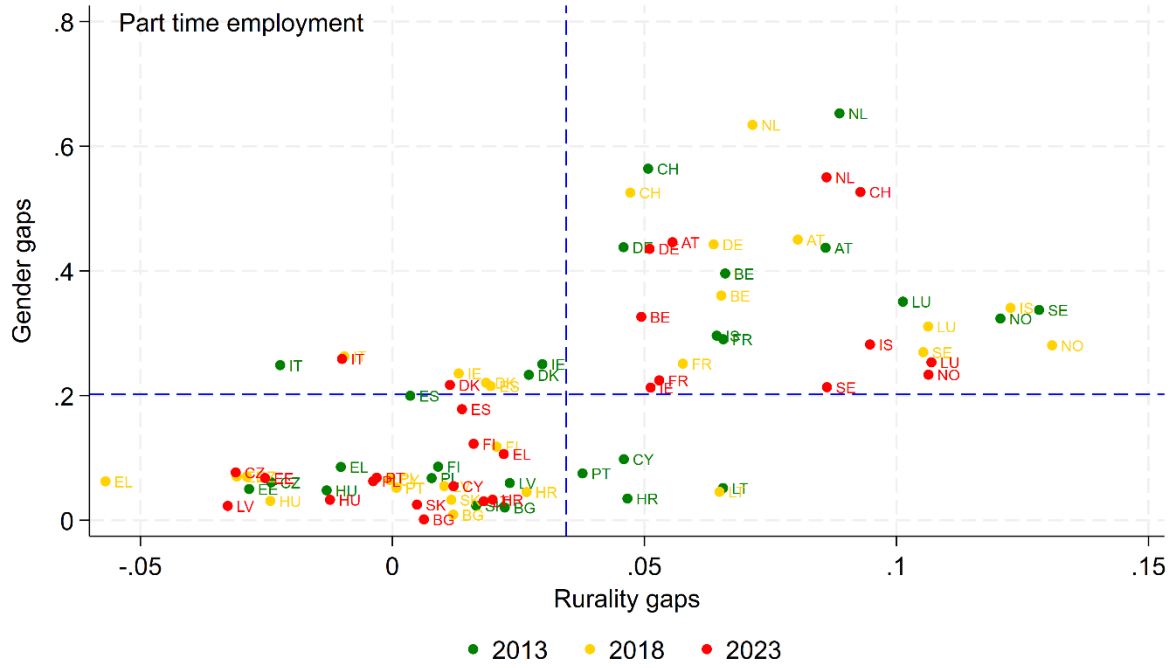


Figure 7: *Predicted probabilities of part-time employment gaps by gender, rurality and year, 2013, 2018, 2023. Average marginal effects. Note: estimates based on logit models (EULFS 2013, 2018, 2023). Dashed blue lines correspond to the average gender gap (y = 0.202) and the average rurality gap (x = 0.034) for all years and countries.*

The top right quadrant of Figure 7 indicates large rurality gaps in part-time employment combined with large gender gaps. Conversely, the bottom left quadrant represents small rurality gaps (or even rurality advantages) and small gender gaps. The data shows that many countries have high predicted probabilities of part-time employment gaps for both gender and rurality—as they are located in the top right quadrant and the bottom left quadrant. When examining changes over time by country, the picture becomes more complex. The average rurality gap is 3.9, 3.3, and 3.1 percent in 2013, 2018 and 2023, respectively. However, some countries show a decline in rurality gaps while others show the opposite trend. This mixed pattern over time

[18] Appendix figure 5.4 present the same results by year.

leads to no substantial changes in the positioning of the reference lines when examining the average gender and rurality gaps across countries.

Figure 8 illustrates part-time employment outcomes by welfare regime for 2013 and 2023, highlighting temporal changes. Figure 9 presents the 2023 outcomes by region and welfare category, incorporating the counterfactual effect. In both figures, the welfare classification appears to be associated with part-time employment gaps among women in rural areas, and the consistency of this effect over time is particularly notable. The most pronounced distinctions are observed between Continental and Nordic countries versus Southern and Eastern Europe. Although Figures 7 and 8 primarily address differences in rurality, it is important to note that the high incidence of part-time employment among women in continental countries underscores differences in welfare classification irrespective of the level of urbanization. Generally, women's propensity to work part-time is significantly higher in Continental countries compared to other regions (Anxo et al., 2007; Matteazzi et al., 2018). For example, in 2023 between 40% and 67% of employed women in Austria, Belgium, Switzerland, Germany, and the Netherlands work part-time, in contrast to less than 35% in most Nordic countries and substantially lower rates in other Southern and Eastern European countries (see Appendix Table 4.2 in Annex 2).

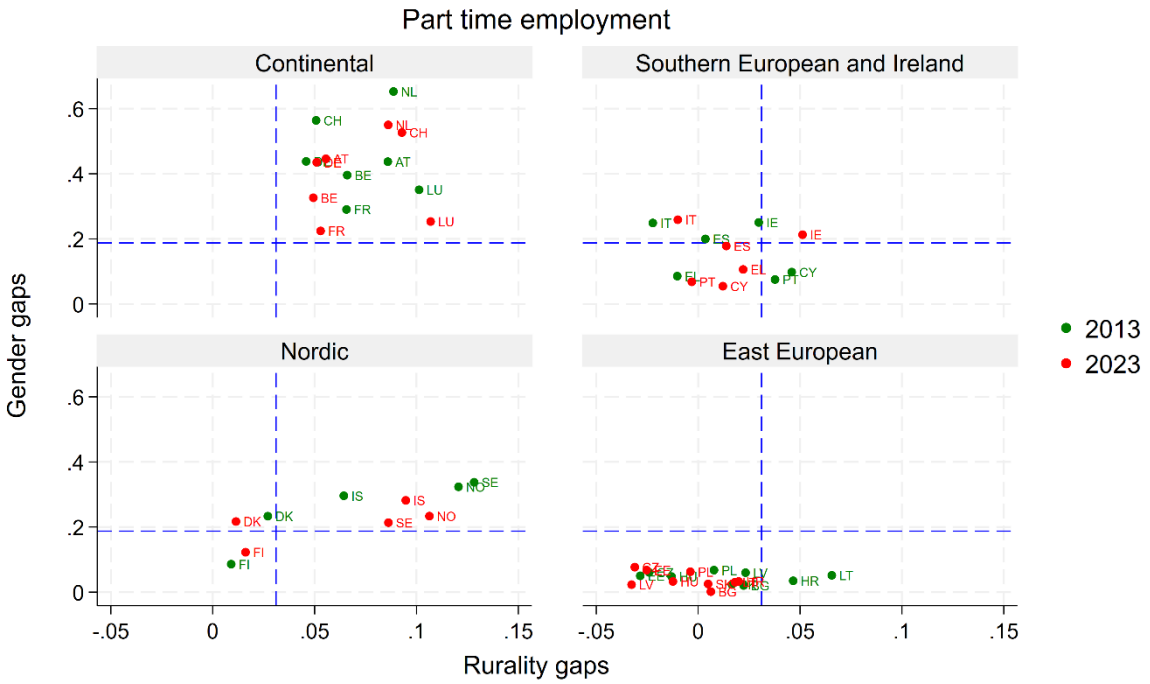


Figure 8: *Predicted probabilities of part-time employment gaps by gender, rurality and welfare group, 2013, 2023. Average marginal effects. Note: estimates based on logit models (EULFS 2013, 2023). Dashed blue lines correspond to the average gender gap (y = 0.187) and the average rurality gap (x = 0.031) for all countries in 2023.*

In **Continental countries**, a greater share of women in rural areas are engaged in part-time employment than their urban counterparts. Moreover, the gender gap in part-time employment for rural women in continental European countries—ranging from 22% to 55%—substantially exceeds that observed in other European contexts. This is in line with the findings suggesting that urban settings in the Netherlands are characterized by the "combination model," where partners more equally share both paid and unpaid labor, contrasting with the dominant "one-and-a-half model" seen in less urbanized areas of the Netherlands (De Meester et al., 2007). Over time, the gender gaps in part-time employment have narrowed in four Continental countries—Belgium, France, Luxembourg, and the Netherlands—primarily due to a decline in part-time employment among women in rural areas (see Figure 8). This work pattern is in stark contrast with that of men in the same regions, in which just between 7–15% work part time. The disparity in work arrangements (part-time vs. full-time) is particularly evident when considering the counterfactual scenario: men in rural areas are more likely to work full-time compared to their urban counterparts and, in most Continental countries, the

gender gap in rural areas is greater than the gender gap in urban areas (see Figure 9). The most striking case of rurality and gender gaps is that of women in the Netherlands. The predicted probability of women in rural areas working part-time is 66%, compared to only 11% for men in these areas and 58% for women in urban areas.

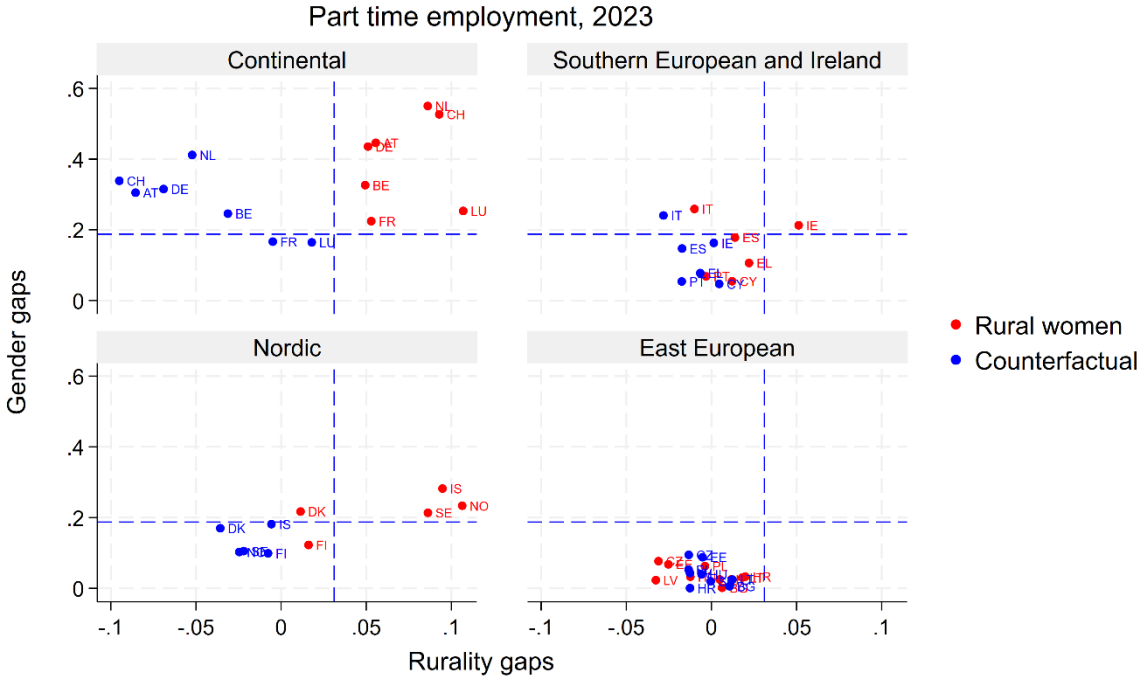


Figure 9: *Predicted probabilities of part-time employment gaps by gender, rurality and welfare group, 2023. Average marginal effects. Note: estimates based on logit models (EULFS, 2023). Dashed blue lines correspond to the average gender gap (y = 0.187) and the average rurality gap (x = 0.031) for all countries in 2023.*

Regarding rurality gaps, a comparable pattern is observed in three **Nordic countries**—Iceland, Norway, and Sweden. However, the gender differences in the likelihood of working part-time in rural areas are less pronounced than those in Continental countries, with a predicted gender difference in rural areas ranging from 20% to 30%. In Sweden and Norway, there has been a decline in both gender and rurality gaps in part-time employment (see Figure 8). This trend is attributable to a significant reduction in the proportion of rural women employed part-time, which decreased from 42% in Sweden and 41% in Norway in 2013 to 30% and 32%, respectively, in 2023 (see Annex 2, Appendix Table 4.2). The counterfactual scenario amongst Nordic countries reveals negligible rurality gaps for men and smaller gender gaps for women in urban areas. The similarities observed between Iceland, Norway, and Sweden may be partially explained by analogous labor market characteristics, which yield similar patterns in part-time employment related to both rurality and gender. In contrast, in Finland and Denmark, rurality gaps in women's part-time employment are smaller, with gender gaps in the predicted probabilities of part-time employment of 12.3% and 21.7%, respectively.

As stated, the differences between Continental and Nordic countries compared to **Southern European** countries are quite pronounced. In Southern European countries, the rate of part-time employment among women does not vary much with the level of urbanization—a finding that contrasts with results on overall employment, which emphasize the importance of the degree of urbanization in shaping women's employment probabilities. These results suggest that the decision to be employed (known as 'selection into employment') differs greatly between urban and rural women in Southern European countries. However, once women are embedded in the labor market (i.e., employed), the likelihood of them working part-time versus full-time does not vary significantly between rural and urban areas. For instance, in Spain in 2023, the predicted probabilities of women working part-time in rural and urban areas to work part-time was 22% and 21%, respectively. Overall, the mean rurality gap in Southern European countries stood at about 1% with very small variation across the countries. A similar argument regarding the importance of selection to employment in Southern

European countries was suggested by Matteazzi et al. (2018). In their study they found that the likelihood of selection into full-time employment is particularly pronounced in Italy, Poland, and Spain and argue that in countries where female labor force participation is relatively low, employed women are predominantly engaged in full-time work and tend to be positively selected into the labor market (Matteazzi et al., 2018).

The gender gaps in Southern European countries are less pronounced than in the continental countries, with small gaps observed in Portugal and Spain (approximately 5–7%) and a larger gap for Italy, where the difference in the predicted probability of part-time work reach 26%. Also of note is the similarity between the gaps in the predicted probability of women in rural areas working part-time and the counterfactual scenario, as evidenced by the relative short distance between the points in each country. This suggests that in Southern European countries, for both women and men, place of residence does not significantly influence part-time employment, and the gender gaps in part-time employment are quite similar in both rural and urban areas. As an example, in Spain the predicted probability of men working part-time is 6% in urban areas and about 4% in rural areas. The gender gap in the predicted probability of working part-time is 15% in urban areas and 18% in rural areas.

The results for **Eastern Europe** show the gender and rurality differences in the extent of part-time employment are even smaller than in Southern European countries. In Eastern European countries both the predicted probabilities and descriptive statistics indicate that full-time work is the most common pattern in these countries, regardless of gender or level of urbanization. This pattern remains relatively stable over the years examined.[19] In addition, the variations between countries in the main effects (e.g., women in rural areas) and the counterfactual are minimal, with all values clustering around zero along the rurality gaps. Moreover, gender gaps are also smaller than in other welfare regimes standing at less than eight percent in most cases (see Figure 9). This finding suggests that selection into employment plays a significant role, as the probability of working full-time does not differ significantly among employed women.

5.5.3. Care responsibility

One potential explanation for the observed gender and urban differences in employment and part-time employment pertains to caregiving responsibilities. Women, in general, are significantly more likely to report that care responsibilities constrain their labor market outcomes, with substantial variation across countries (BusinessEurope, 2023). Previous studies and policy documents indicate that women's participation in the labor market in rural areas is constrained by their caregiving duties and the challenges of balancing work and family life (Eurostat, 2023c; Franić & Kovačićek, 2019; Luca et al., 2023; European Commission, 2021). The information on care responsibilities is derived from responses to the following question in the EU-LFS: *"Is the person not searching for a job or working part-time due to specific care responsibilities?"*. Overall, a relatively small proportion of women and men in the sample responded affirmatively to this question. On average, across countries, only 3% of the men and women interviewed indicated that their work was limited by caregiving responsibilities, with 5.4% of women responding positively. There is considerable variation, with over 20% of women in Austria and Switzerland reporting caregiving constraints, compared to less than two percent in Denmark, Iceland, Portugal, Norway and Lithuania, in 2023. Although the interpretation of this question may vary across countries, it provides valuable insights into intra-country differences, particularly when comparing urban and rural contexts.

[19] Note that Lithuania and Croatia experienced a decline in the rurality gap, but this is a relatively small change.

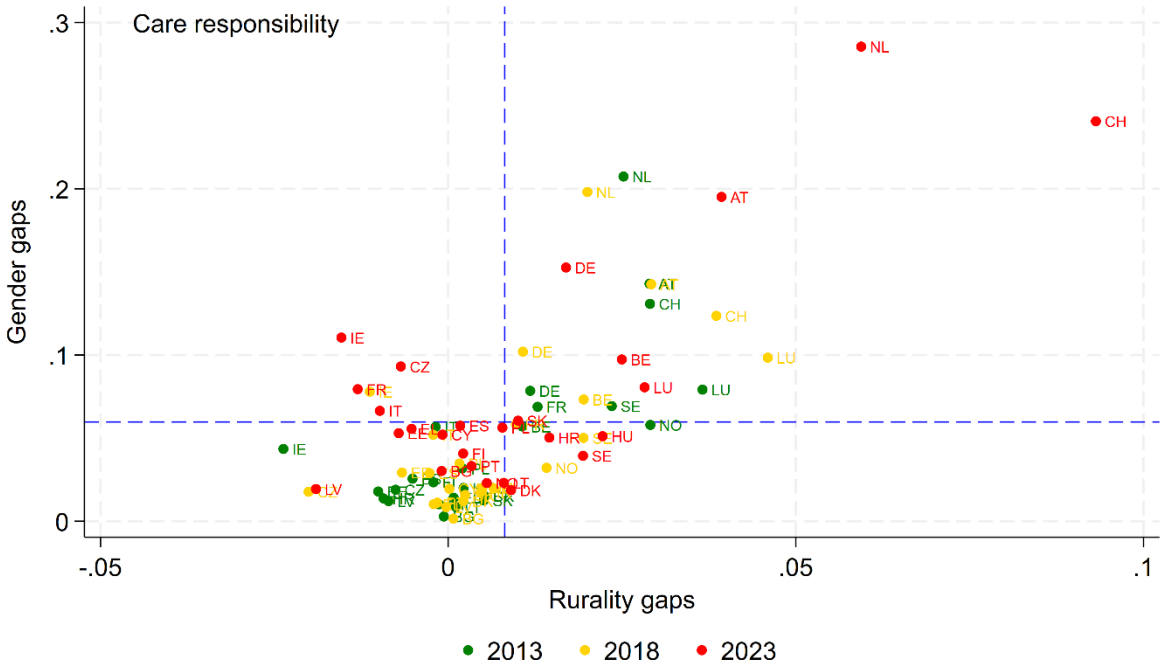


Figure 10: *Predicted probabilities of care responsibility gaps by gender, rurality and year, 2013, 2018, 2023. Average marginal effects. Note: estimates based on logit models (EULFS 2013, 2018, 2023). Dashed blue lines correspond to the average gender gap (y = 0.060) and the average rurality gap (x = 0.008) for all years and countries.*

Figure 10 illustrates the differences in the predicted probabilities of answering that caregiving responsibilities are limiting the work scope across various European countries, segmented by gender and rurality gaps for the years 2013, 2018 and 2023.[20] As depicted, a large proportion of data points cluster around zero, indicating no significant impact of urbanization level and gender gaps. However, certain countries, such as the Netherlands, Switzerland, Austria, and Luxembourg, exhibit more pronounced disparities in urbanization levels. Similar to part-time work, a sizeable number of points lie in the upper right and lower left quadrants.

The gender and rurality gaps by welfare type, as illustrated in Figures 11 and 12, reveal noteworthy patterns.[21] There is similarity in the extent of gender and rurality gaps across all types of welfare states with small gender and rurality gaps in care responsibility, with the exception of Continental countries, which seem to follow a different pattern characterized by larger gender and rurality gaps. In the Nordic, Eastern European, and Southern European countries, there are relatively small differences in the tendency of women in urban and rural areas to report that their work is limited due to caregiving responsibilities. This observation has two possible—non-mutually-exclusive—interpretations: either the disparity in work supply between urban and rural women is not driven by differences in caregiving responsibilities, or the question fails to fully capture the impact of care responsibilities on employment.

[20] Appendix figure 5.6 present the same results by year.
[21] See appendix X for the same results for the years 2013 and 2018.

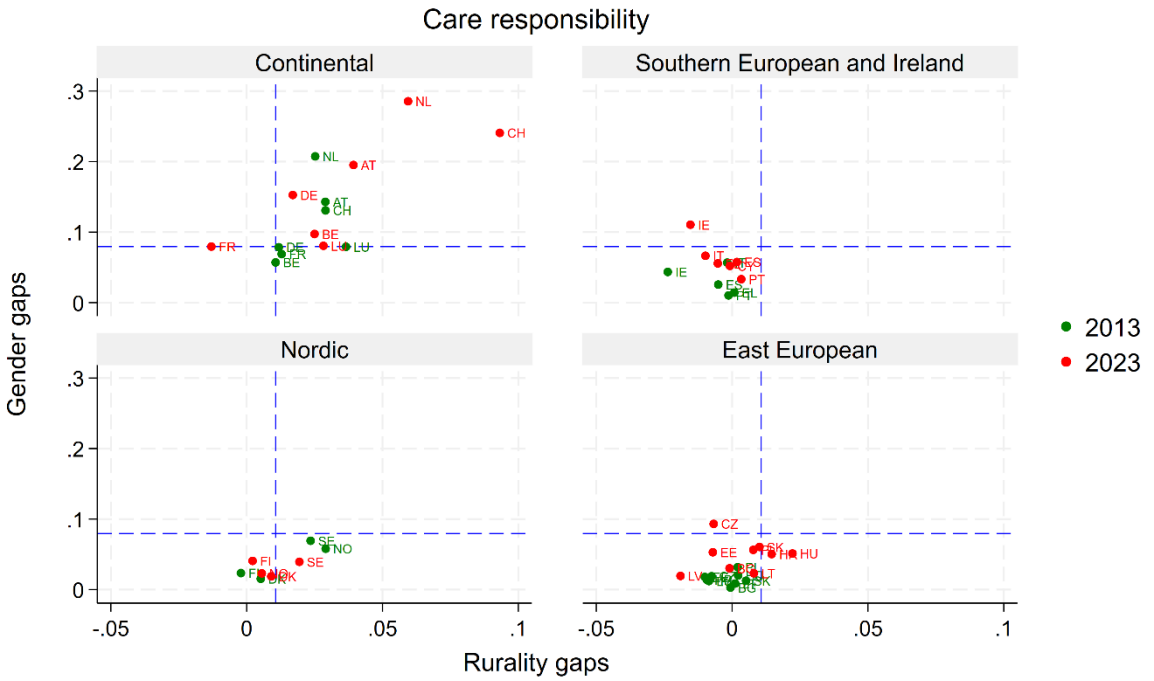


Figure 11: *Predicted probabilities of care responsibility gaps by gender, rurality and welfare group, 2013, 2023. Average marginal effects. Note: estimates based on logit models (EULFS 2013, 2023). Dashed blue lines correspond to the average gender gap (y = 0.079) and the average rurality gap (x = 0.011) for all countries in 2023.*

Interpretation of Figure 11 shows that in **Eastern** and, to some extent, **Southern European countries**, women in rural areas do not seems to be more prone to answer that care responsibilities limit their employment supply, relative to women in urban areas. This finding is somewhat in contrast with the finding that women in rural areas in these countries are generally less likely to be employed than their urban counterparts. In these areas, the lower employment probability of rural women in may not be due to differing caregiving constraints but rather other factors such as job availability or societal gender norms (Bock, 2015; de Pryck and Termine, 2014). Nonetheless, the little variation in responses to this question may also influence these findings.

The relatively small gender and rurality gaps in the care responsibilities in the **Nordic countries** align with the theoretical expectations of a welfare state that ensure universal access to early childhood care. Furthermore, given that such services are intended to be uniformly available irrespective of urbanization levels, the observed limited differences between women residing in urban and rural areas further substantiate this policy framework.

In contrast, women in **Continental countries** exhibit significant urban-rural differences in the tendency to report that caregiving responsibilities limit their employment. In the Netherlands, Austria, and Switzerland, these gaps have widened over time (see Figure 11). Additionally, gender gaps are larger in rural areas than in urban areas, as evidenced by the comparison between the main effect and the counterfactual in each country (see Figure 12). For example, in 2023, the gender gap in rural areas in the Netherlands (the most extreme case) was approximately 29%, while the gender gap in urban areas was about 21%. In many continental countries, part-time employment or labor market exit is more prevalent among women after starting a family (Anxo et al., 2007), suggesting that childcare responsibilities likely influence labour supply decisions. The findings here indicate that within Continental countries these responsibilities may impose greater limitations on employment opportunities and work scope for women in rural areas compared to those in urban areas. Unlike trends observed in other continental countries, women in urban areas of France are slightly more likely than their rural counterparts to emphasize the impact of caregiving on their work.

As previously noted, changes over time appear limited. However, there are some indications of increased variation across countries between 2013 and 2023, particularly in Eastern Europe and, to a lesser extent, in Southern Europe. In these regions, data points are more dispersed in 2023 compared to 2013. This dispersion may reflect a tendency toward larger gender disparities rather than notable rural-urban differences.

In summary, the analysis reveals that in most countries there are no significant differences in caregiving responsibilities by rurality levels, and gender gaps are also limited, mostly below 10%. However, for women in Continental countries, employment limitations due to caregiving are considerable, with women in rural areas facing additional employment constraints due to caregiving responsibilities compared to their urban counterparts.

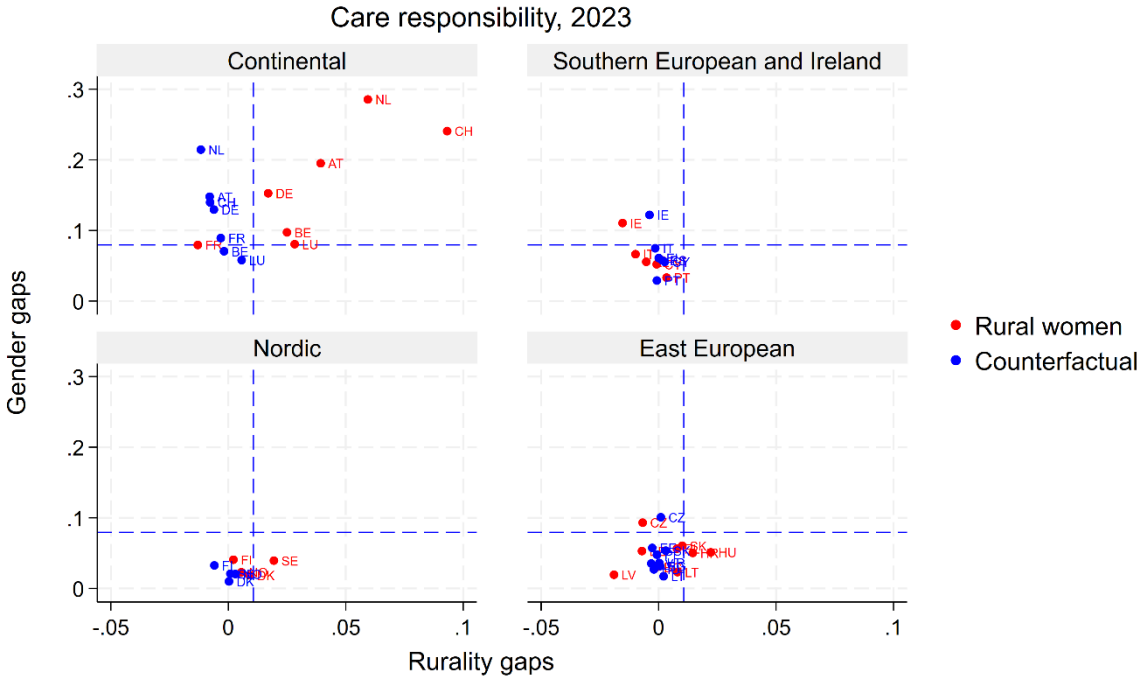


Figure 12: *Predicted probabilities of care responsibility gaps by gender, rurality and welfare group, 2023. Average marginal effects. Note: estimates based on logit models (EULFS 2023). Dashed blue lines correspond to the average gender gap (y = 0.079) and the average rurality gap (x = 0.011) for all countries in 2023.*

6. Concluding remarks

The concept of resilience has become increasingly important in rural studies, offering alternative analytical methods for exploring local development and identifying entrenched interests. By involving stakeholders and using adaptive network governance as a guide, rural development practice can address questions of agency and governance in a rapidly changing environment. However, there is still debate over how to define and appraise resilience, particularly when applying it to policy. Here we propose a working definition of rural resilience as *a contextual and spatially bound evolutionary process of future proofing that accounts for the interlinkages between the economic, environmental, and societal sustainability of the place, the community and the individual in a context of uncertainty and unpredictability*, which provides a good framework for the exploration of social resilience with a gender angle.

Addressing the drivers of female outmigration, such as limited economic opportunities, gender-based discrimination, and recognizing and empowering rural women is in fact a requisite for building resilient and sustainable communities that can weather demographic shifts and economic upheaval. However, in rural contexts traditional gender norms can restrict women's engagement in the formal labor market, often confining them to unpaid care work or insecure employment. While urban areas typically offer more progressive gender ideologies and greater employment opportunities, rural environments tend to reinforce conservative norms, contributing to persistent gender disparities. Beyond local conditions, national institutions—such as welfare regimes, family policies, and labor regulations—also shape women's labor market outcomes, alongside prevailing cultural norms.

Our findings reveal consistent gender gaps in employment across all welfare regimes. While rural-urban differences among women appear limited at the aggregate level, notable cross-country differences emerge. In eleven of the 27 countries studied—primarily in Southern and Eastern Europe—rural women face heightened disadvantages. Conversely, in several Continental and Nordic countries, rural women demonstrate higher employment probabilities than urban women. Over time, rural-urban disparities in employment have narrowed, particularly in Southern Europe, indicating some progress.

Part-time employment also displays regional variation. In Continental and Nordic countries, rural women are notably more likely to work part-time. This is especially evident in the Netherlands and Austria, where welfare systems and cultural expectations reinforce gendered labor patterns. In contrast, Southern and Eastern European countries show minimal differences in part-time work by rurality, consistent with the overall lower prevalence of part-time employment in these regions.

Care responsibilities further affect employment, particularly in Continental countries, where rural women report more constraints linked to caregiving. In Southern and Eastern Europe, however, caregiving plays a less central role, with structural labor market limitations and traditional gender norms appearing more decisive in shaping outcomes.

These patterns underscore the critical role of welfare state configurations in mediating gender and rural inequalities. In Continental regimes, higher rural female employment often coincides with more part-time work and caregiving-related constraints, reinforcing conventional gender roles. In Nordic countries, while the welfare model is more egalitarian and childcare is widely accessible, some rural-urban differences persist. In Southern and Eastern Europe, rural women's disadvantages might be associated with structural conditions, including limited job availability, type of industries, and traditional labor divisions.

Overall, the intersection of gender and rurality reveals complex, context-dependent disadvantages that vary by institutional and cultural environment. Addressing these disparities is essential not only for social justice but also for enhancing the resilience of rural communities. However, policy responses to these issues remain fragmented. Despite the European Union's promotion of gender-sensitive rural development policies, most initiatives fall short on this goal, often limiting their scope to separate projects for women rather than addressing systemic gender inequality. Investing in the education, training, and entrepreneurship of rural women is a crucial strategy for building resilient and sustainable rural communities that can withstand the challenges of demographic change. However, our findings show how addressing the intersectional barriers faced by rural women requires indirect interventions, including investments in childcare infrastructure,

enhanced access to education and skill-building programs, and the promotion of flexible work arrangements such as teleworking.

Moreover, the transformative potential of rural women as agents of community resilience can be further unlocked by integrating a gender lens into rural development policies, programs and plans. Gender mainstreaming, which integrates gender perspectives across all stages of policymaking, offers a promising approach to addressing these challenges. By ensuring that gender equality remains a central goal of EU's rural policy, the flagship of the LTVRA of Promoting social resilience and women in rural areas has the potential to foster greater socio-economic resilience in rural areas.

Future research should explore the underlying mechanisms driving gender disparities in rural labor markets, including the roles of job availability, childcare infrastructure, and societal gender norms, to better inform policy interventions aimed at reducing employment inequalities. Moreover, where and when possible, more granular analyses should be conducted to capture within-country and within-rural variations and identify barriers to women's labor force participation in rural areas, particularly in relation to remoteness and accessibility. In addition, more research is necessary to evaluate the effectiveness of gender-sensitive interventions across diverse rural contexts and explore the structural and cultural changes required to bridge urban-rural divides. Addressing these gaps is crucial for fostering inclusive labor markets and advancing gender equality across diverse geographic and socio-economic contexts and thereby contribute to the development of resilient rural communities across the EU.

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Annexes

Annex 1. Bibliometric searches

In the initial phase of the bibliometric search, we employed the SCOPUS database as the primary source. We used a comprehensive search string, focusing on the term "Rural resilience" enclosed in brackets, and kept the search open without specific delimitations. The temporal scope spanned from 2004 to 2023.

The specific search query used was:

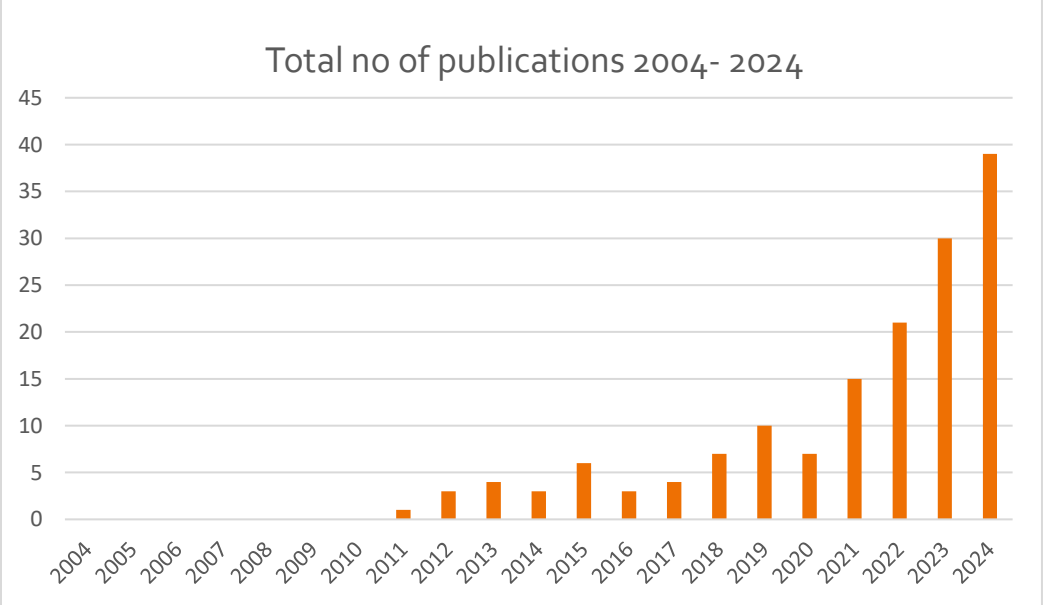
TITLE-ABS-KEY ("rural resilience") AND PUBYEAR > 2004

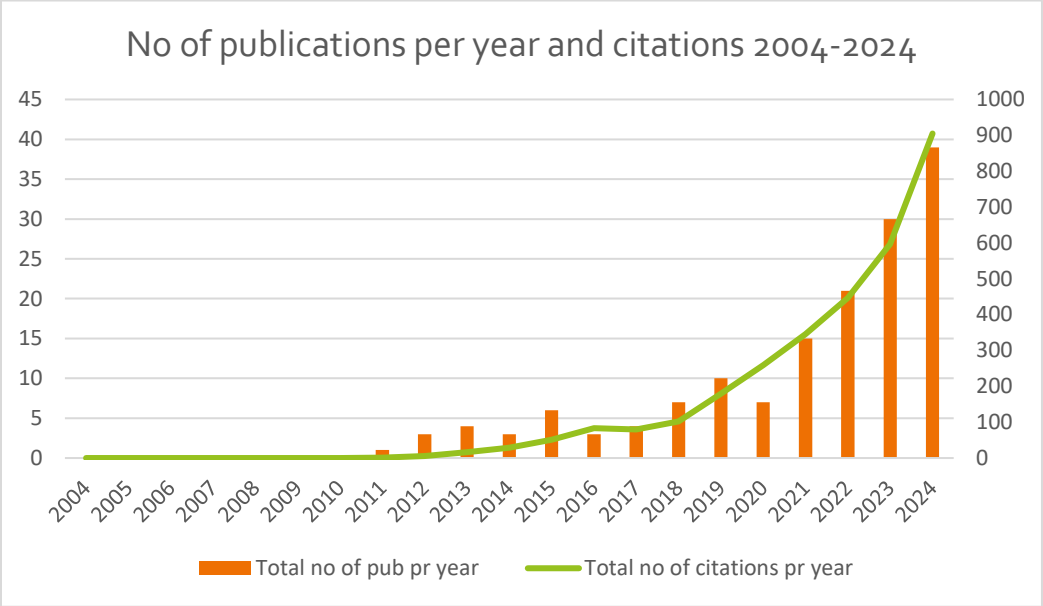
This search string yielded a total of 153 results. Priority will be given to articles that align with key concepts while considering citation counts. Among these, 63 papers stood out as the most interesting, which were subsequently considered in terms of further relevance to the task at hand by reading through the abstracts identifying common themes and highlighted specific areas of the resilience literature at hand. This process aided in identifying which articles warranted more in-depth exploration. The key concepts identified in the abstracts were the following:

- Socio-economic resilience
- Economic resilience
- Community and social resilience
- Ecological resilience
- Disaster risk reduction/management

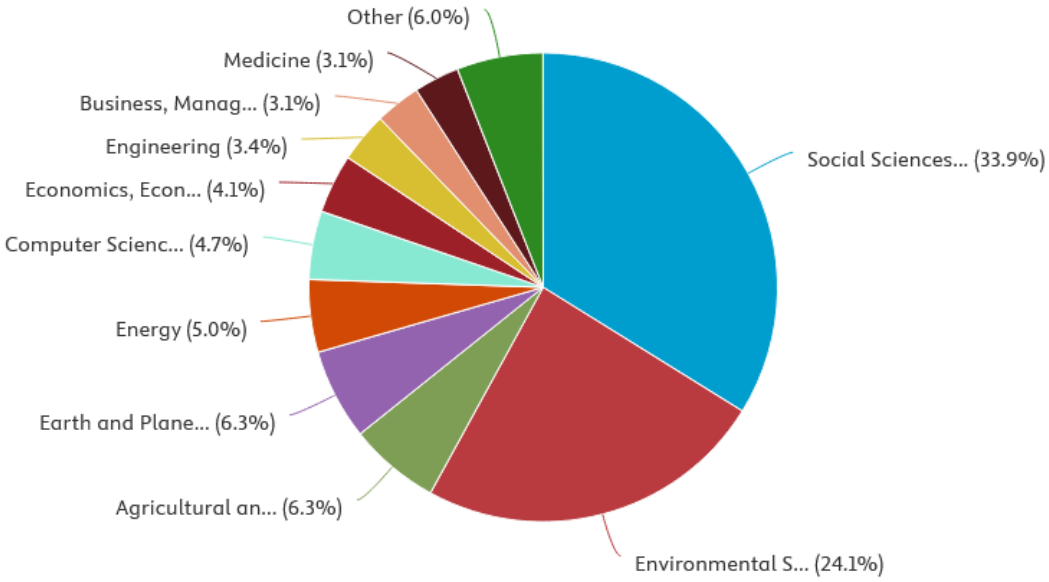
The aim is to strike a balance between relevance and inclusivity, recognizing that lower-cited publications may still contribute valuable insights, so some of these were also considered. Subsequently, a thorough examination of these selected articles allowed for the identification of seminal papers. This involved scrutinizing mentions of authors who consistently appeared in the literature, contributing to the establishment of a comprehensive understanding of the key works in the field. As time went on, relevant articles suggested by the project partners were included as well.

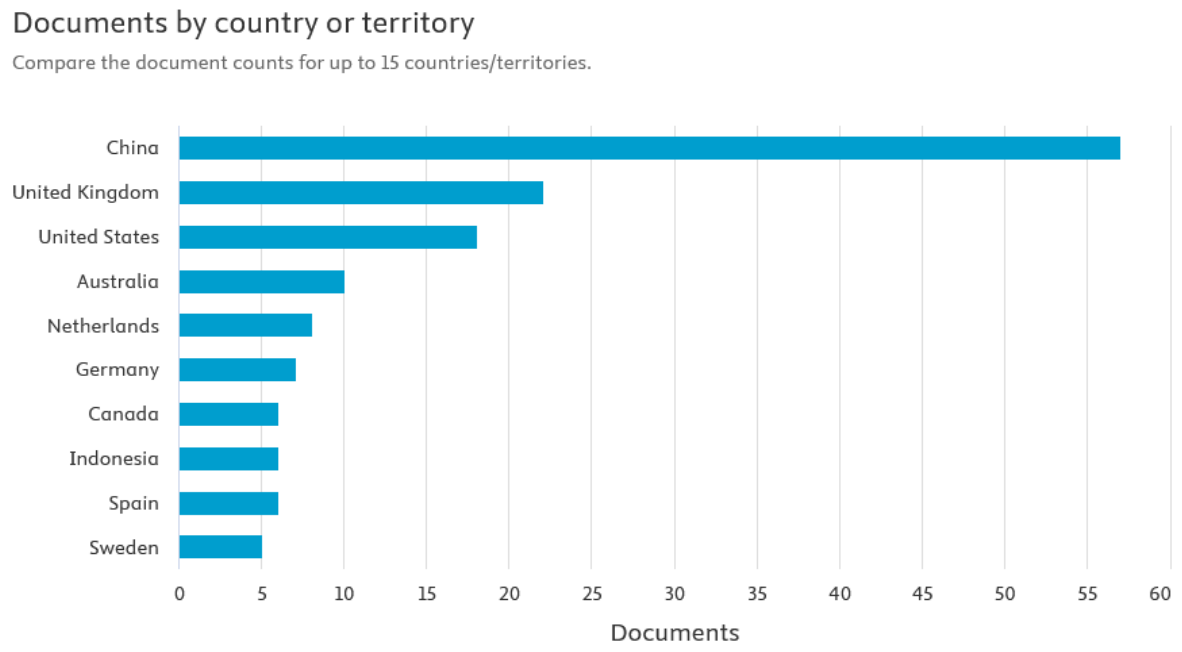
Overview of the results from the literature search in SCOPUS (figures):





Documents by subject area





Keywords and Concepts Derived from Literature Search on Rural Resilience

The exploration of rural resilience as a concept has revealed its relatively recent emergence, and the notion of it being a blend of restructuring and resistance, involving both change and permanence seems to capture some of the essence of the concept. This multifaceted nature of the concept of (rural) resilience manifest through its various presentations: at the levels of place, community, individual, and notably, over time.

Key Concepts 1: Social and socio-economic Resilience. The examination of abstracts highlighted essential themes falling under the umbrella of social and socio-economic resilience. Keywords such as community/whole of community planning, skills and competence, employment, social innovation, digitalization, and uneven deployment shed light on the intricate dynamics within rural areas. Additionally, factors like changing employment patterns, urbanization, new ruralities, and energy literacy underscore the diverse challenges and opportunities rural resilience addresses.

Key Concepts 2: Economic Resilience. In understanding economic resilience, the literature emphasizes keywords like local entrepreneurship, farming practices and policies, diversified local (labor) markets, and the pivotal role of local enterprises in shaping social development. Rural development policies, tourism, SMEs, and micro-businesses constitute key aspects reflecting the economic dimensions of rural resilience.

Conceptualization Challenges: Despite the wealth of information, a uniform conceptualization of rural resilience remains elusive in the reviewed abstracts. The temporal aspect, however, is a noteworthy addition, suggesting the evolving nature of rural resilience. The literature hints at inherent tensions between economic, social, and ecological resilience, aligning with the sustainability triangle. Spatial and temporal scales, place sensitivity, frame sensitivity, and social geographies add layers of complexity to the understanding of rural resilience. Acknowledging new rural realities introduces the idea of novel opportunities arising in tandem with the evolving concept.

With this in mind, the structure of the literature is based on the main bodies of literature found, namely the discourse on the evolutionary aspects of the concept of resilience, the body of socio-economic resilience literature, the body of regional resilience literature and what could be added under the title of rural resilience literature, with subtitles including community resilience.

Annex 2. Annex to gender perspective on rural resilience

Appendices list:

1. **Descriptive statistics (excel file)**
   - 1.1 Descriptive statistics full sample by country
   - 1.2 Descriptive statistics full sample by country gender and DGURBA
   - 1.3 Descriptive statistics employed individuals' sample by country
   - 1.4 Descriptive statistics employed individuals' sample by country gender and DGURBA
2. **Regression coefficient (excel file)**
   - 2.1 Regression coefficient of employment by country and year
   - 2.2 Regression coefficient of part time employment by country and year
   - 2.3 Regression coefficient of care responsibility by country and year
3. **Predicted probability (excel file)**
   - 3.1 Predicted probabilities of employment by country and year
   - 3.2 Predicted probabilities of part-time employment by country and year
   - 3.3 Predicted probabilities of care responsibility by country and year
4. **Predicted Probabilities Gaps (current file)**
   - 4.1 Predicted probabilities gap of employment by country and year (2013, 2023)
   - 4.2 Predicted probabilities gap of part-time employment by country and year (2013, 2023)
   - 4.3 Predicted probabilities of care responsibility by country and year (2013, 2023)
5. **Appendix Figures (current file)**
   - 5.1 Predicted probabilities of employment gaps by gender, rurality and year (2013, 2018, 2023)
   - 5.2 Predicted probabilities of employment gaps by gender, rurality and welfare, 2013
   - 5.3 Predicted probabilities of employment gaps by gender, rurality and welfare, 2018
   - 5.4 Predicted probabilities of part-time employment gaps by gender, rurality and year (2013, 2018, 2023)
   - 5.5 Predicted probabilities of part-time employment gaps by gender, rurality and welfare, 2013
   - 5.6 Predicted probabilities of part-time employment gaps by gender, rurality and welfare, 2018
   - 5.7 Predicted probabilities of care responsibility gaps by gender, rurality and year (2013, 2018, 2023)
   - 5.8 Predicted probabilities of care responsibility gaps by gender, rurality and welfare, 2013
   - 5.9 Predicted probabilities of care responsibility gaps by gender, rurality and welfare, 2018

Appendix 4.1: Predicted Probabilities of Employment and Employment Gaps by Year, Country, Rurality, and Gender (2013, 2023)

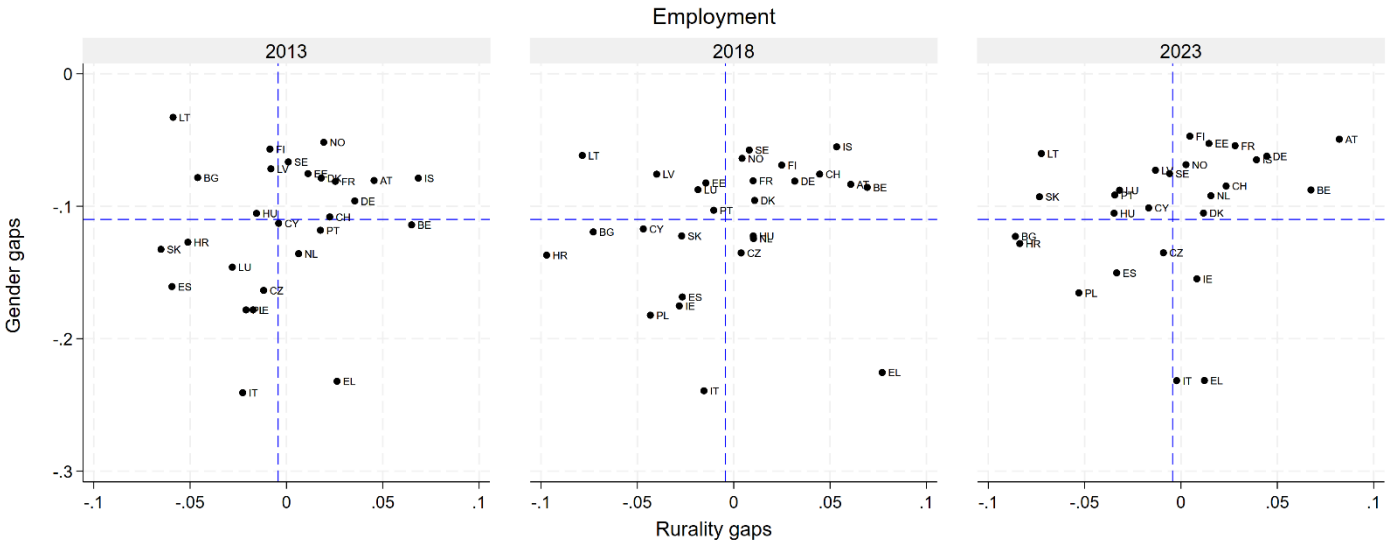
Country	year	PP Urban men	PP Urban women	PP Rural men	PP Rural women	Rurality Gap for women	Rurality Gap for men	Gender Gap in rural	Gender Gap in urban
AT	2013	0.729	0.678	0.804	0.723	4.5%	7.5%	-8.1%	-5.1%
AT	2023	0.761	0.685	0.816	0.767	8.2%	5.5%	-4.9%	-7.6%
BE	2013	0.694	0.588	0.767	0.653	6.5%	7.3%	-11.4%	-10.6%
BE	2023	0.765	0.640	0.796	0.708	6.7%	3.0%	-8.8%	-12.5%
BG	2013	0.714	0.636	0.669	0.590	-4.6%	-4.5%	-7.8%	-7.7%
BG	2023	0.845	0.769	0.806	0.683	-8.6%	-3.9%	-12.3%	-7.6%
CH	2013	0.834	0.748	0.878	0.770	2.2%	4.5%	-10.8%	-8.6%
CH	2023	0.853	0.782	0.890	0.805	2.3%	3.7%	-8.5%	-7.1%
CY	2013	0.748	0.649	0.758	0.645	-0.4%	1.0%	-11.3%	-9.9%
CY	2023	0.857	0.758	0.842	0.741	-1.7%	-1.5%	-10.1%	-10.0%
CZ	2013	0.857	0.691	0.843	0.679	-1.2%	-1.5%	-16.4%	-16.6%
CZ	2023	0.918	0.783	0.909	0.774	-0.9%	-0.9%	-13.5%	-13.5%
DE	2013	0.790	0.711	0.843	0.747	3.5%	5.3%	-9.6%	-7.9%
DE	2023	0.837	0.747	0.854	0.792	4.5%	1.7%	-6.2%	-9.0%
DK	2013	0.765	0.700	0.796	0.718	1.8%	3.1%	-7.9%	-6.5%
DK	2023	0.818	0.745	0.862	0.757	1.2%	4.4%	-10.5%	-7.3%
EE	2013	0.795	0.701	0.788	0.713	1.1%	-0.7%	-7.5%	-9.4%
EE	2023	0.869	0.788	0.855	0.803	1.4%	-1.3%	-5.3%	-8.0%
EL	2013	0.609	0.445	0.704	0.472	2.6%	9.5%	-23.2%	-16.3%
EL	2023	0.769	0.597	0.841	0.610	1.2%	7.3%	-23.2%	-17.1%
ES	2013	0.653	0.568	0.669	0.509	-5.9%	1.7%	-16.1%	-8.4%
ES	2023	0.773	0.675	0.792	0.641	-3.3%	1.9%	-15.0%	-9.8%
FI	2013	0.775	0.716	0.765	0.708	-0.9%	-1.0%	-5.7%	-5.8%
FI	2023	0.786	0.770	0.822	0.775	0.5%	3.6%	-4.7%	-1.6%
FR	2013	0.735	0.660	0.767	0.686	2.5%	3.1%	-8.1%	-7.5%
FR	2023	0.780	0.706	0.789	0.734	2.8%	0.9%	-5.4%	-7.3%
HR	2013	0.602	0.580	0.656	0.529	-5.1%	5.4%	-12.7%	-2.2%
HR	2023	0.744	0.733	0.778	0.649	-8.4%	3.3%	-12.8%	-1.1%
HU	2013	0.710	0.598	0.687	0.582	-1.6%	-2.3%	-10.5%	-11.3%
HU	2023	0.876	0.793	0.863	0.758	-3.5%	-1.3%	-10.5%	-8.3%
IE	2013	0.719	0.615	0.776	0.598	-1.7%	5.8%	-17.8%	-10.3%
IE	2023	0.848	0.739	0.902	0.747	0.8%	5.4%	-15.5%	-10.9%
IS	2013	0.865	0.782	0.929	0.850	6.8%	6.4%	-7.9%	-8.4%
IS	2023	0.897	0.803	0.907	0.842	3.9%	1.0%	-6.5%	-9.4%
IT	2013	0.702	0.516	0.734	0.493	-2.3%	3.1%	-24.1%	-18.7%
IT	2023	0.771	0.570	0.800	0.568	-0.2%	2.9%	-23.2%	-20.0%
LT	2013	0.784	0.738	0.712	0.680	-5.9%	-7.2%	-3.3%	-4.6%
LT	2023	0.848	0.808	0.796	0.736	-7.2%	-5.2%	-6.0%	-3.9%
LU	2013	0.800	0.686	0.804	0.658	-2.8%	0.4%	-14.6%	-11.4%
LU	2023	0.817	0.759	0.815	0.727	-3.2%	-0.2%	-8.8%	-5.8%
LV	2013	0.750	0.687	0.751	0.679	-0.8%	0.1%	-7.2%	-6.2%
LV	2023	0.813	0.757	0.817	0.744	-1.3%	0.4%	-7.3%	-5.5%
NL	2013	0.805	0.707	0.849	0.713	0.6%	4.4%	-13.6%	-9.8%
NL	2023	0.879	0.788	0.896	0.804	1.6%	1.7%	-9.2%	-9.1%
NO	2013	0.830	0.761	0.833	0.781	1.9%	0.3%	-5.2%	-6.8%
NO	2023	0.852	0.772	0.843	0.775	0.3%	-0.8%	-6.9%	-7.9%
PL	2013	0.723	0.605	0.763	0.584	-2.1%	4.0%	-17.8%	-11.7%
PL	2023	0.855	0.748	0.860	0.695	-5.3%	0.6%	-16.5%	-10.7%
PT	2013	0.681	0.626	0.762	0.644	1.8%	8.1%	-11.8%	-5.4%
PT	2023	0.828	0.777	0.834	0.742	-3.4%	0.5%	-9.2%	-5.2%
SE	2013	0.846	0.785	0.852	0.786	0.1%	0.6%	-6.7%	-6.1%
SE	2023	0.858	0.805	0.875	0.799	-0.6%	1.6%	-7.5%	-5.3%
SK	2013	0.789	0.658	0.726	0.593	-6.5%	-6.3%	-13.3%	-13.0%
SK	2023	0.855	0.818	0.837	0.744	-7.3%	-1.8%	-9.3%	-3.7%

Appendix 4.2: Predicted Probabilities of Part-Time Employment and Employment Gaps by Year, Country, Rurality, and Gender (2013, 2023)

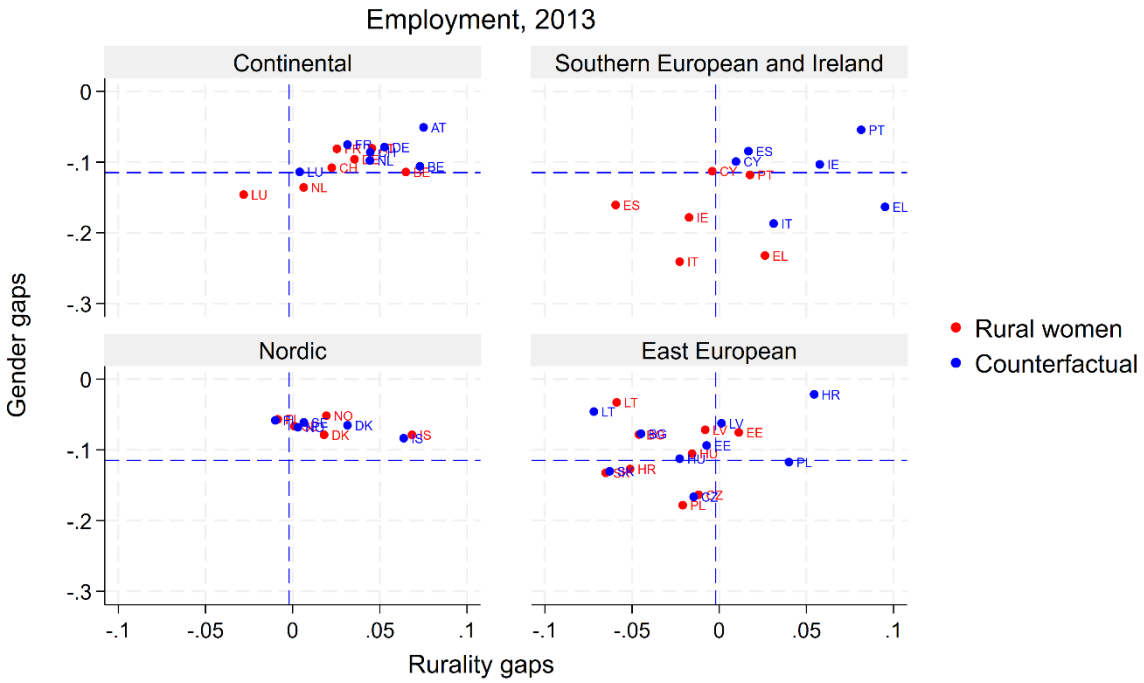
Country	year	PP Urban men	PP Urban women	PP Rural men	PP Rural women	Rurality Gap for women	Rurality Gap for men	Gender Gap in rural	Gender Gap in urban
AT	2013	0.141	0.419	0.068	0.505	8.6%	-7.3%	43.7%	27.8%
AT	2023	0.176	0.481	0.090	0.536	5.6%	-8.5%	44.6%	30.5%
BE	2013	0.097	0.405	0.075	0.471	6.6%	-2.2%	39.6%	30.8%
BE	2023	0.118	0.363	0.086	0.413	4.9%	-3.1%	32.6%	24.6%
BG	2013	0.015	0.022	0.024	0.044	2.2%	0.9%	2.0%	0.7%
BG	2023	0.008	0.013	0.018	0.020	0.6%	1.1%	0.1%	0.6%
CH	2013	0.187	0.618	0.105	0.669	5.1%	-8.2%	56.4%	43.1%
CH	2023	0.241	0.580	0.146	0.673	9.3%	-9.5%	52.7%	33.9%
CY	2013	0.076	0.133	0.081	0.179	4.6%	0.5%	9.8%	5.7%
CY	2023	0.054	0.101	0.059	0.113	1.2%	0.5%	5.5%	4.7%
CZ	2013	0.029	0.100	0.016	0.076	-2.4%	-1.4%	6.1%	7.1%
CZ	2023	0.038	0.133	0.025	0.102	-3.1%	-1.3%	7.7%	9.4%
DE	2013	0.126	0.451	0.059	0.497	4.6%	-6.7%	43.8%	32.5%
DE	2023	0.145	0.460	0.076	0.511	5.1%	-6.9%	43.5%	31.5%
DK	2013	0.109	0.267	0.061	0.294	2.7%	-4.9%	23.3%	15.7%
DK	2023	0.125	0.295	0.089	0.306	1.1%	-3.6%	21.7%	17.0%
EE	2013	0.050	0.127	0.048	0.098	-2.8%	-0.2%	5.0%	7.7%
EE	2023	0.082	0.170	0.077	0.145	-2.5%	-0.5%	6.8%	8.8%
EL	2013	0.058	0.132	0.037	0.122	-1.0%	-2.2%	8.6%	7.4%
EL	2023	0.034	0.112	0.028	0.134	2.2%	-0.7%	10.6%	7.7%
ES	2013	0.077	0.249	0.052	0.252	0.4%	-2.4%	20.0%	17.2%
ES	2023	0.060	0.207	0.043	0.221	1.4%	-1.7%	17.8%	14.7%
FI	2013	0.085	0.152	0.075	0.161	0.9%	-1.0%	8.6%	6.7%
FI	2023	0.093	0.191	0.085	0.208	1.6%	-0.8%	12.3%	9.9%
FR	2013	0.074	0.277	0.053	0.343	6.6%	-2.2%	29.0%	20.3%
FR	2023	0.072	0.238	0.067	0.291	5.3%	-0.5%	22.4%	16.7%
HR	2013	0.037	0.038	0.050	0.084	4.7%	1.2%	3.5%	0.1%
HR	2023	0.033	0.033	0.020	0.053	2.0%	-1.3%	3.3%	0.0%
HU	2013	0.048	0.096	0.035	0.083	-1.3%	-1.3%	4.8%	4.8%
HU	2023	0.024	0.063	0.018	0.051	-1.2%	-0.6%	3.3%	3.9%
IE	2013	0.100	0.325	0.104	0.354	3.0%	0.4%	25.0%	22.4%
IE	2023	0.068	0.231	0.070	0.283	5.1%	0.1%	21.3%	16.3%
IS	2013	0.063	0.245	0.014	0.310	6.4%	-5.0%	29.6%	18.2%
IS	2023	0.063	0.245	0.057	0.339	9.5%	-0.6%	28.2%	18.1%
IT	2013	0.094	0.327	0.056	0.304	-2.2%	-3.9%	24.9%	23.2%
IT	2023	0.083	0.324	0.055	0.314	-1.0%	-2.8%	25.9%	24.1%
LT	2013	0.032	0.069	0.084	0.135	6.6%	5.2%	5.2%	3.8%
LT	2023	0.033	0.057	0.045	0.075	1.8%	1.2%	3.0%	2.5%
LU	2013	0.048	0.294	0.044	0.395	10.1%	-0.4%	35.1%	24.5%
LU	2023	0.057	0.221	0.075	0.328	10.7%	1.8%	25.3%	16.4%
LV	2013	0.054	0.081	0.044	0.104	2.3%	-1.0%	6.0%	2.6%
LV	2023	0.069	0.112	0.056	0.079	-3.3%	-1.3%	2.3%	4.3%
NL	2013	0.220	0.714	0.150	0.803	8.9%	-7.0%	65.3%	49.4%
NL	2023	0.166	0.578	0.114	0.664	8.6%	-5.2%	55.0%	41.2%
NO	2013	0.121	0.289	0.086	0.410	12.1%	-3.5%	32.4%	16.8%
NO	2023	0.109	0.211	0.084	0.318	10.6%	-2.5%	23.3%	10.3%
PL	2013	0.042	0.098	0.039	0.106	0.8%	-0.3%	6.8%	5.7%
PL	2023	0.035	0.088	0.022	0.084	-0.4%	-1.3%	6.3%	5.3%
PT	2013	0.070	0.132	0.094	0.169	3.8%	2.4%	7.5%	6.1%
PT	2023	0.046	0.100	0.029	0.097	-0.3%	-1.7%	6.8%	5.4%
SE	2013	0.116	0.296	0.087	0.425	12.8%	-2.9%	33.7%	18.0%
SE	2023	0.111	0.216	0.089	0.303	8.6%	-2.2%	21.3%	10.5%
SK	2013	0.026	0.048	0.041	0.064	1.7%	1.5%	2.3%	2.2%
SK	2023	0.018	0.037	0.017	0.042	0.5%	0.0%	2.5%	2.0%

Appendix 4.3: Predicted Probabilities of Care Responsibility Employment and Employment Gaps by Year, Country, Rurality, and Gender for 2013 and 2023

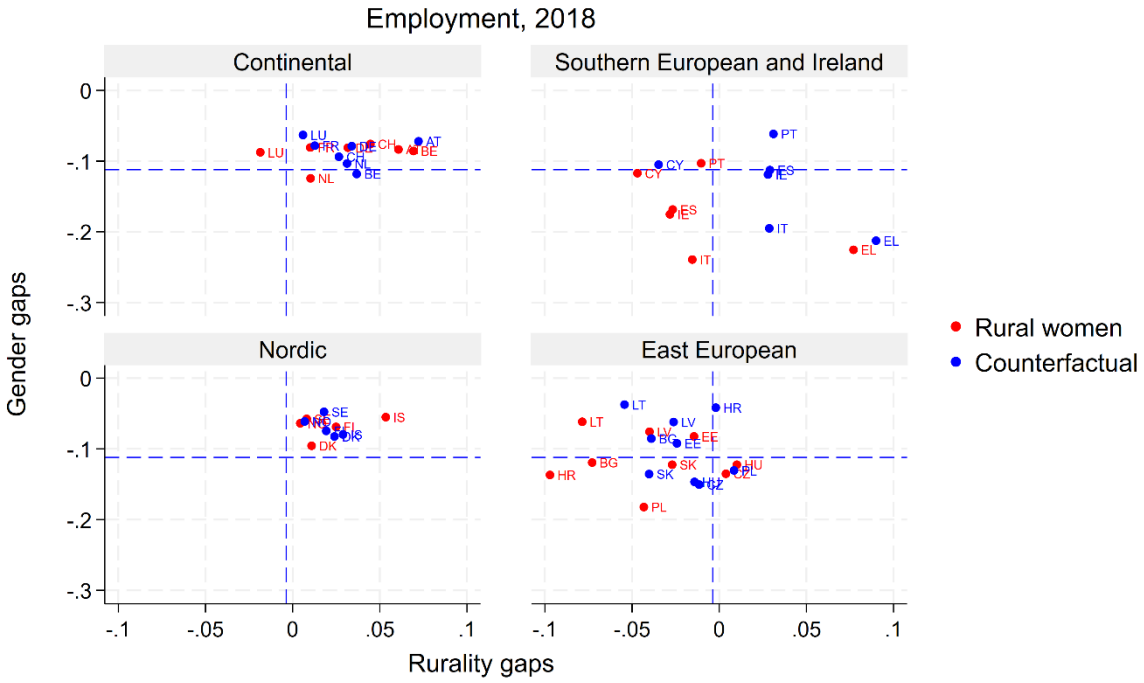
Country	year	PP Urban men	PP Urban women	PP Rural men	PP Rural women	Rurality Gap for women	Rurality Gap for men	Gender Gap in rural	Gender Gap in urban
AT	2013	0.007	0.117	0.003	0.146	2.9%	-0.4%	14.3%	11.0%
AT	2023	0.019	0.167	0.012	0.207	3.9%	-0.8%	19.5%	14.8%
BE	2013	0.003	0.051	0.004	0.061	1.1%	0.1%	5.7%	4.7%
BE	2023	0.010	0.081	0.008	0.106	2.5%	-0.2%	9.7%	7.1%
BG	2013	0.000	0.004	0.001	0.003	-0.1%	0.0%	0.3%	0.4%
BG	2023	0.003	0.034	0.003	0.034	-0.1%	0.1%	3.0%	3.2%
CH	2013	0.013	0.109	0.008	0.138	2.9%	-0.5%	13.1%	9.7%
CH	2023	0.037	0.177	0.029	0.270	9.3%	-0.8%	24.1%	14.0%
CZ	2013	0.001	0.027	0.001	0.020	-0.8%	-0.1%	1.9%	2.6%
CZ	2023	0.003	0.104	0.004	0.097	-0.7%	0.1%	9.3%	10.1%
DE	2013	0.004	0.069	0.002	0.081	1.2%	-0.2%	7.8%	6.5%
DE	2023	0.016	0.146	0.010	0.163	1.7%	-0.6%	15.3%	13.0%
DK	2013	0.000	0.010	0.000	0.016	0.5%	0.0%	1.5%	1.0%
DK	2023	0.001	0.011	0.001	0.020	0.9%	0.0%	1.9%	1.0%
EE	2013	0.002	0.029	0.001	0.019	-1.0%	0.0%	1.8%	2.8%
EE	2023	0.008	0.065	0.005	0.058	-0.7%	-0.3%	5.3%	5.7%
ES	2013	0.001	0.032	0.001	0.027	-0.5%	0.0%	2.6%	3.1%
ES	2023	0.007	0.065	0.009	0.066	0.2%	0.2%	5.8%	5.7%
FI	2013	0.003	0.026	0.000	0.024	-0.2%	-0.3%	2.3%	2.2%
FI	2023	0.011	0.043	0.005	0.046	0.2%	-0.6%	4.1%	3.3%
FR	2013	0.005	0.059	0.003	0.072	1.3%	-0.2%	6.9%	5.4%
FR	2023	0.013	0.102	0.010	0.089	-1.3%	-0.3%	7.9%	8.9%
HR	2013	0.002	0.025	0.002	0.016	-0.9%	0.0%	1.4%	2.3%
HR	2023	0.002	0.038	0.002	0.052	1.5%	0.0%	5.0%	3.6%
HU	2013	0.003	0.020	0.002	0.022	0.2%	0.0%	2.0%	1.7%
HU	2023	0.007	0.034	0.005	0.056	2.2%	-0.2%	5.1%	2.7%
IE	2013	0.004	0.069	0.002	0.045	-2.4%	-0.2%	4.3%	6.5%
IE	2023	0.024	0.146	0.020	0.131	-1.5%	-0.4%	11.0%	12.2%
IT	2013	0.002	0.060	0.001	0.058	-0.2%	-0.1%	5.7%	5.8%
IT	2023	0.006	0.081	0.005	0.071	-1.0%	-0.1%	6.6%	7.5%
LU	2013	0.005	0.046	0.003	0.083	3.7%	-0.2%	7.9%	4.1%
LU	2023	0.011	0.069	0.017	0.097	2.8%	0.6%	8.1%	5.8%
LV	2013	0.002	0.022	0.001	0.013	-0.9%	-0.1%	1.2%	2.0%
LV	2023	0.004	0.040	0.001	0.021	-1.9%	-0.3%	1.9%	3.5%
NL	2013	0.022	0.194	0.012	0.219	2.5%	-1.0%	20.7%	17.2%
NL	2023	0.032	0.247	0.021	0.306	5.9%	-1.2%	28.6%	21.4%
NO	2013	0.004	0.029	0.001	0.058	2.9%	-0.3%	5.8%	2.6%
NO	2023	0.001	0.022	0.004	0.027	0.6%	0.3%	2.3%	2.0%
PL	2013	0.002	0.032	0.002	0.034	0.2%	-0.1%	3.2%	2.9%
PL	2023	0.005	0.053	0.004	0.061	0.8%	-0.1%	5.6%	4.8%
PT	2013	0.001	0.012	0.001	0.011	-0.1%	0.0%	1.0%	1.1%
PT	2023	0.003	0.032	0.002	0.035	0.3%	-0.1%	3.3%	2.9%
SE	2013	0.010	0.052	0.006	0.075	2.4%	-0.4%	6.9%	4.2%
SE	2023	0.007	0.028	0.008	0.048	1.9%	0.1%	3.9%	2.1%



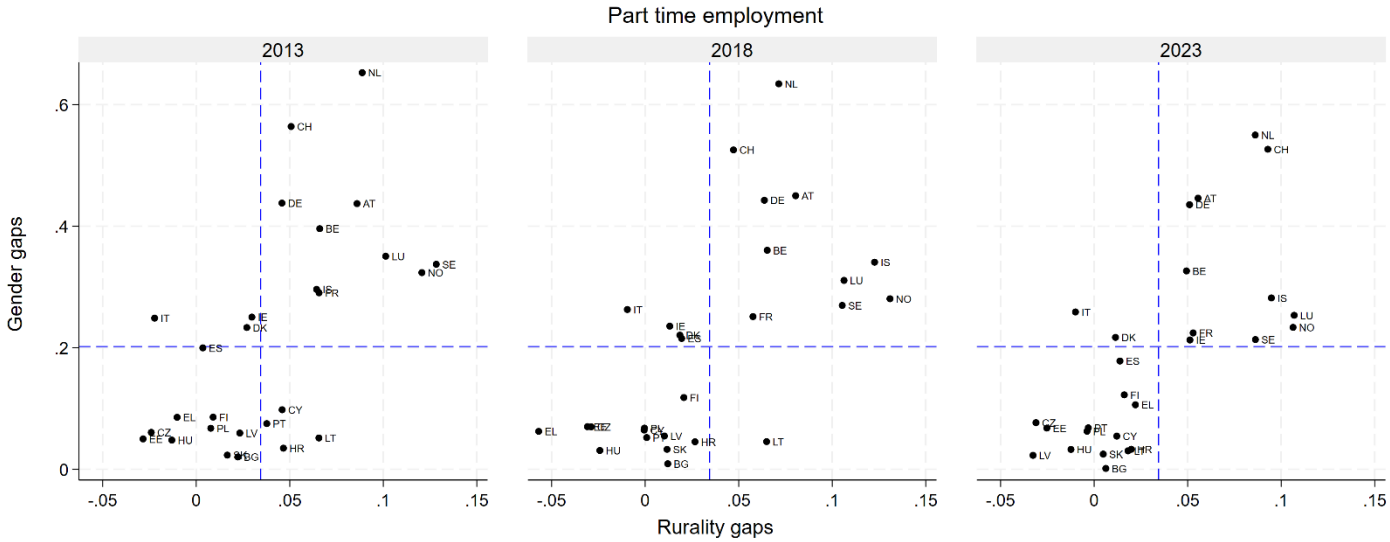
Appendix Figure 5.1*: Predicted probabilities of employment gaps by gender, rurality and year (2013, 2018, 2023)*



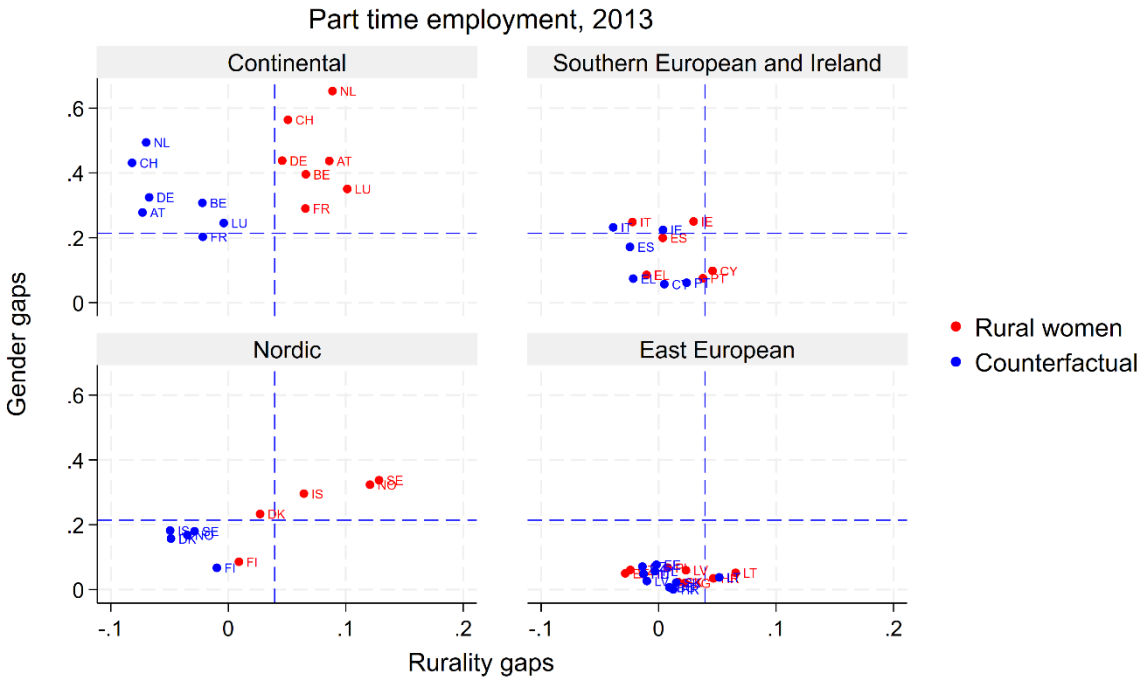
Appendix Figure 5.2: *Predicted probabilities of employment gaps by gender, rurality and welfare, 2013*



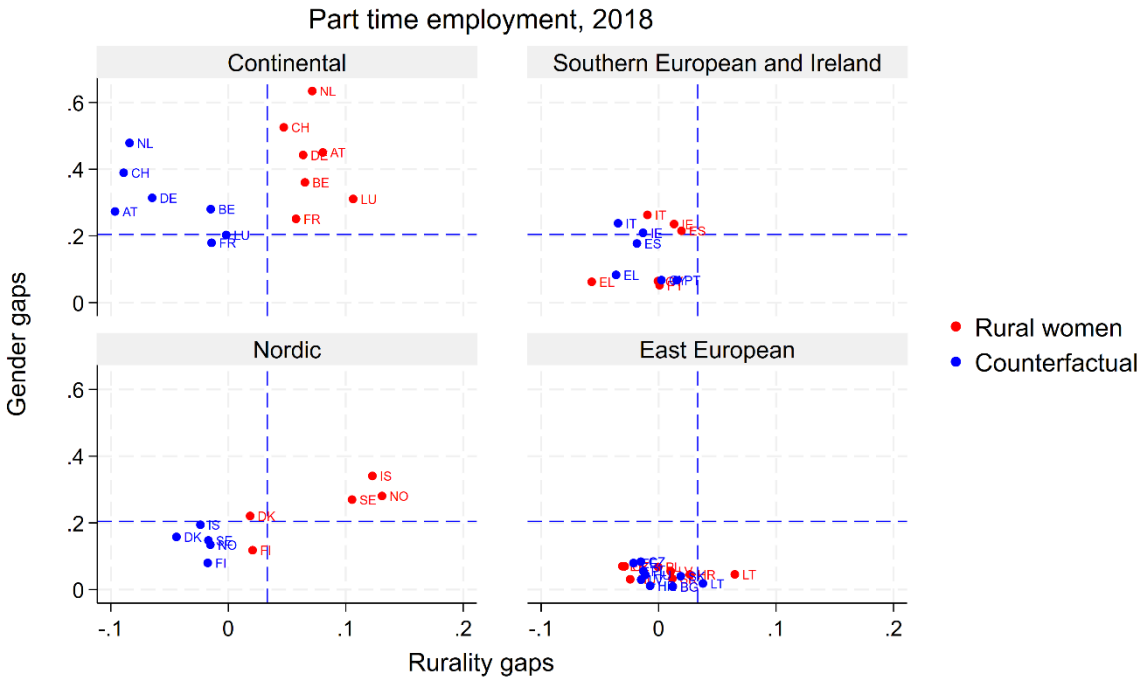
Appendix Figure 5.3: *Predicted probabilities of employment gaps by gender, rurality and welfare, 2018*



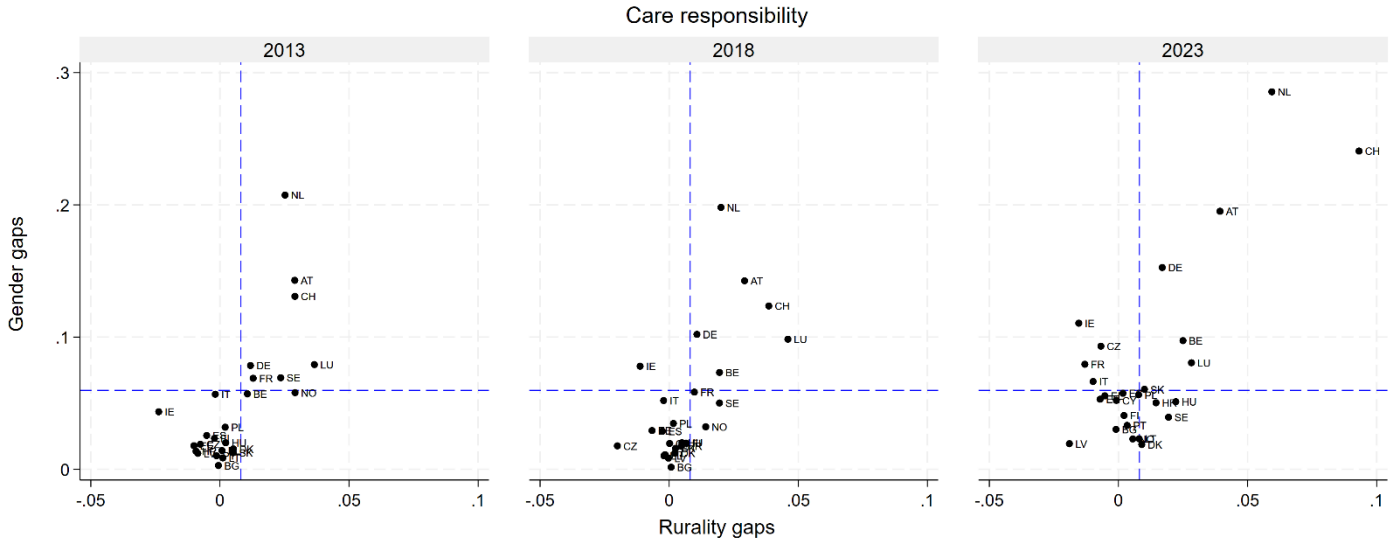
Appendix Figure 5.4: *Predicted probabilities of part-time employment gaps by gender, rurality and year (2013, 2018, 2023)*



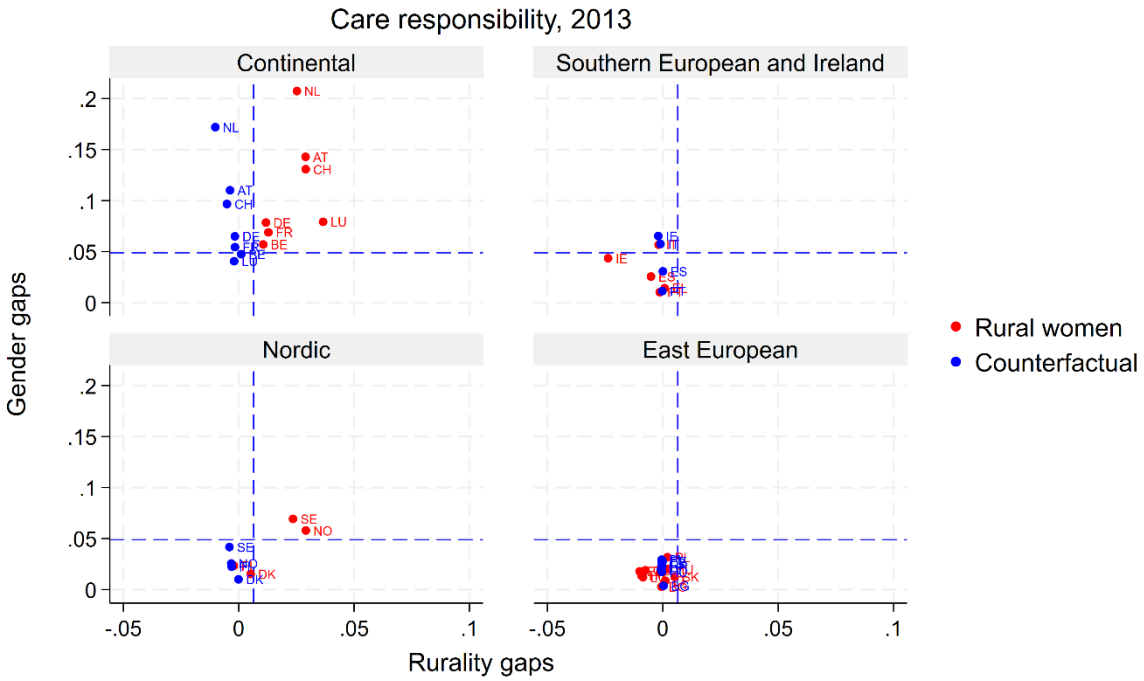
Appendix Figure 5.5: *Predicted probabilities of part-time employment gaps by gender, rurality and welfare, 2013*



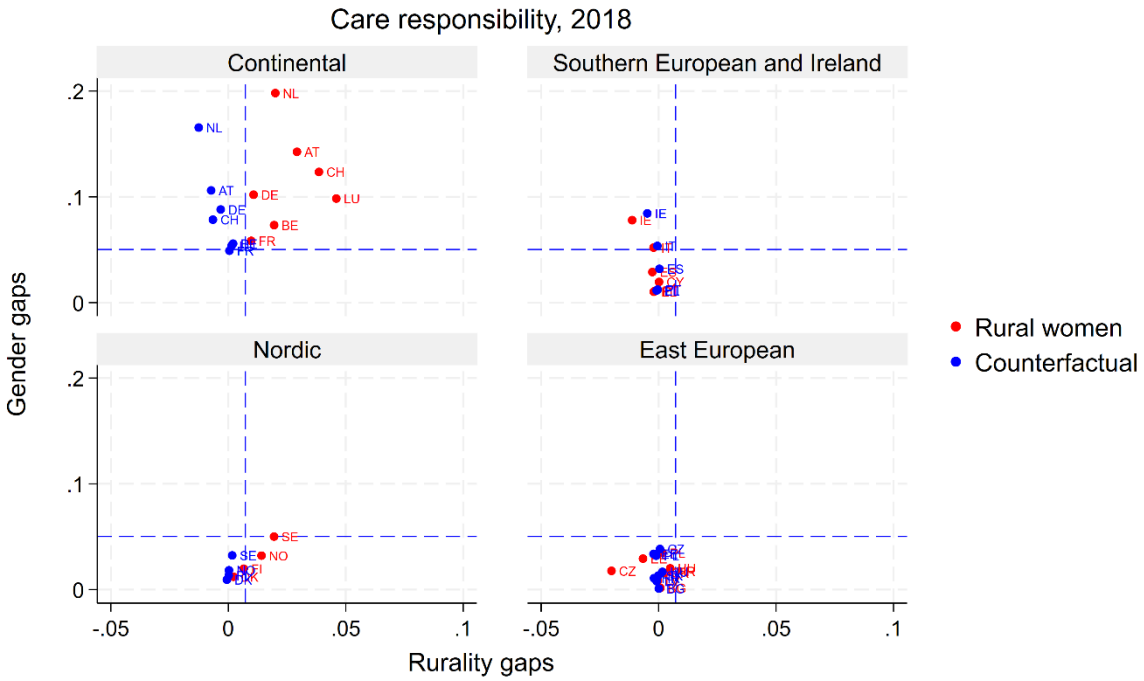
Appendix Figure 5.6: *Predicted probabilities of part-time employment gaps by gender, rurality and welfare, 2018*



Appendix Figure 5.7*: Predicted probabilities of care responsibility gaps by gender, rurality and year (2013, 2018, 202)*



Appendix Figure 5.8*: Predicted probabilities of care responsibility gaps by gender, rurality and welfare, 2013*



Appendix Figure 5.9*: Predicted probabilities of care responsibility gaps by gender, rurality and welfare, 2018*