

UDC:

Анали Економског факултета у Суботици – The Annals of the Faculty of Economics
in Subotica

DOI: 10.5937/AnEkSub2500002B

Vol. XX, No. XX, pp. XX-XXX

Original scientific article

Received: 19/01/2025

Revision: 18/02/2025

Accepted: 21/02/2025

Online first: 03/03/2025

Analysis of Income Differences Between Rural and Urban Areas in Serbia

Analiza razlika u приходима између руралних и урбаних области у Србији

Dejan Brcanov

Faculty of Economics in Subotica, University of Novi Sad, Serbia, dejan.brcanov@ef.uns.ac.rs

<https://orcid.org/0000-0003-4059-5232>

Abstract: This study explores income disparities within the rural-urban divide through a multidisciplinary approach, incorporating factors such as education, gender, employment, and household size, with the aim of providing insights for the development of effective policies and promoting inclusive regional development.

Data were collected from the SILC database conducted in Serbia in 2022. A univariate analysis was performed with all control variables, and subsequently a multiple regression analysis. The inclusion of control variables further illuminates the income differences observed between rural and urban areas. Our findings confirm that income levels are higher in urban areas compared to rural ones. The influence of other variables is consistent with the literature.

Future research will adopt a longitudinal approach and include additional socio-economic indicators, which could offer further explanations for income disparities between urban and rural regions.

Keywords: well-being, income disparities, rural areas, EU-SILC.

JEL classification: I31, I32, O18.

Сажетак: Ова студија истражује разлике у приходима унутар рурално-урбаног раздвајања кроз мултидисциплинарни приступ, узимајући у обзир факторе као што су образовање, пол, запосленост и величина домаћинства, с циљем пружања увида за развој ефективних политика и промовисање инклузивног регионалног развоја.

Подаци су прикупљени из SILC базе спроведене у Србији 2022. године. Спроведена је униваријациона анализа свих контролних варијабли, а након тога и вишеструка регресија. Укључивање контролних варијабли додатно осветљава разлике у приходима између руралних и урбаних подручја. Наши налази потврђују да су приходи виши у урбаним него у руралним областима. Утицај других варијабли је у складу са литературом.

Будућа истраживања усмериће се на лонгитудинални приступ и укључивање додатних социо-економских показатеља који би могли додатно објаснити разлике у приходима између урбаних и руралних средина.

Кључне речи: добробит, разлике у приходима, рурална подручја, EU-SILC.

ЈЕЛ класификација: I31, I32, O18.

Introduction

Income disparities between rural and urban areas represent a pressing challenge with profound socio-economic implications. Across various regions, urban areas consistently enjoy higher income levels, reflecting their advantages in access to education, employment opportunities, and essential services. Conversely, rural areas often face limited infrastructure,

restricted economic opportunities, and pronounced skill deficits, exacerbating the income divide. This urban-rural disparity is not only an economic concern but also a societal issue that shapes human capital development, regional cohesion, and long-term national growth trajectories (Perpiña et al., 2023; Zarifa et al., 2019).

The complexity of these disparities is heightened by the unique characteristics of rural areas, which cannot be solely understood through geographical distance or agglomeration effects. Instead, the multifaceted roles of rural regions - anchored in sustainable agri-food systems, territorial capital, and relational proximity - offer alternative pathways for development that transcend traditional frameworks (Mantino, 2022). Moreover, sparsely populated and remote areas, particularly in developed countries, exhibit regional disconnectedness, where urban-centric growth strategies fail to generate equitable spillover effects for surrounding hinterlands (Carson et al., 2022).

From a policy perspective, addressing these disparities requires a nuanced approach. Place-based policies that consider the unique attributes of rural areas are essential for fostering mutual benefits between urban, peri-urban, and rural regions (Perpiña et al., 2023). Similarly, targeted fiscal interventions, such as spatial transfers to poorer regions, can mitigate income inequalities, particularly when calibrated to account for migration and skill-location preferences (Gaubert et al., 2021). Effective governance, including decentralization and local policy innovation, has also proven instrumental in balancing regional development and enhancing rural economic prospects (Díaz-Lanchas & Mulder, 2021).

At the individual level, education emerges as a critical determinant of income disparities. In rural areas, the lower availability and returns on education create significant barriers to socio-economic mobility. Rural residents not only obtain lower levels of formal education but also experience limited access to post-secondary opportunities, often prompting those with higher qualifications to migrate to urban centers for better employment prospects (Zarifa et al., 2019, Mantino, 2022). The resulting skill and income gaps perpetuate cycles of inequality, leaving rural areas at a disadvantage in the knowledge-driven global economy.

This study seeks to contribute to the expanding body of research on income inequalities between rural and urban areas by examining these dynamics through the multidisciplinary lens. Specifically, it draws on various perspectives, including gender, education, employment status, and household size, to offer a comprehensive understanding of the factors underlying these disparities. The findings aim to inform the development of more effective policies and promote inclusive regional development.

The remainder of the paper is structured as follows: Section 1 provides a review of the relevant literature, while Section 2 outlines the data and methodology employed in the study. The results of the analysis are presented in Section 3, followed by the final conclusions.

1. Literature review

Research highlights significant differences in life satisfaction between rural and urban areas within the European Union. Comprehensive insights into well-being disparities, highlighting

diverse indicators across countries and emphasizing the unique challenges and opportunities in rural regions can be found in OECD (2020a, 2020b). Enhancing societal development in a rural-urban context requires addressing disparities in access to resources and opportunities, with the aim of improving general well-being for individuals across both rural and urban areas (Madžar et al. 2024). Rural residents consistently report higher levels of life satisfaction than their urban counterparts, even after controlling for socio-economic factors. This trend is evident across three clusters of EU countries categorized by their level of economic affluence, as measured by GDP. Key drivers of this disparity include lower levels of insecurity, differences in frames of comparison, and enhanced social interaction in rural areas (Sørensen, 2014). Similarly, Shucksmith (2009) has conducted an analysis of urban–rural disparities in perceived welfare and quality of life. This study reveals minimal differences in richer EU countries, while rural areas in poorer nations, particularly EU candidate countries, exhibit significantly lower welfare levels. However, despite these disparities in perceived welfare, subjective well-being remains relatively consistent, suggesting the influence of contextual and cultural factors.

Income inequalities between rural and urban regions have far-reaching socio-economic implications. In Latvia, these disparities have led to increased emigration, reduced tax revenues, and diminished consumer demand, yet the topic remains underexplored in academic literature (Sloka, 2019). A broader analysis of Rodríguez-Pose and Tselios (2009) in Western Europe indicates a robust U-shaped relationship between income per capita and inequality, with 80% of income disparities occurring within regions rather than between them. Northern and urban regions exhibit higher income levels and lower inequality, whereas southern and rural areas lag in economic development. Chivu et al. (2015) showed a growing gap between household income levels and GDP per capita in Romania that reflects significant rural–urban disparities, further challenging the EU’s objective of economic and social cohesion.

Labor migration, particularly to Norway following the 2004 EU enlargement, has further exacerbated income inequality. Slettebak (2021) points that this migration has not only increased overall inequality but has also affected income disparities within the native population, particularly in rural municipalities. Unlike refugees, labor migration’s impact on inequality is significant among natives, suggesting a distinct mechanism that warrants further investigation.

According to Bernard (2019), several factors contribute to the persistent poverty and deprivation observed in rural areas across Europe. In poorer EU countries, rural regions face lower welfare levels and diminished quality of life, particularly in post-socialist transition contexts and regions with high proportions of agricultural workers. These disparities are closely tied to national economic development and urbanization processes, which exacerbate rural disadvantages. Specifically, rural poverty is driven by three interrelated processes: the concentration of low-resource households, heightened poverty risks for these households, and poverty-enhancing effects that operate independently of household resources. These dynamics underscore the critical role of national economic advancement in addressing rural deprivation. Marković and Marjanović (2025) aim to categorize advanced economies across

Europe based on their poverty levels while also identifying countries that require increased financial and social support to effectively mitigate poverty. The results of Trpeski et al. (2024) show a noticeable deceleration in the growth rates of labor productivity over the past decade in Southern and Eastern European countries. This trend is particularly relevant, as higher labor productivity in urban areas often leads to significant urban-rural income disparities, with urban regions typically benefiting from superior infrastructure, better access to education, and greater economic opportunities—advantages that are less prevalent in rural areas.

Despite lower welfare levels in rural areas, Shucksmith et al. (2009) conclude that subjective well-being remains largely unaffected, suggesting the presence of compensatory social or cultural factors that mitigate the negative impacts of material deprivation. Bukša et al. (2022) highlight the dual impact of foreign direct investment (FDI) on less developed countries, acknowledging its potential to drive economic growth while also recognizing cases where multinational corporations have negatively affected economic stability and sustainable development.

Urban–rural inequalities require targeted policy interventions to address spatial disparities effectively. An analysis of living conditions in Germany, conducted by Schnorr-Baecker (2021), based on NUTS 3 data provides a spatial comparison that highlights significant variations in opportunities and risks for urban and rural areas. Pre-COVID data serve as a baseline for assessing post-pandemic dynamics and identifying areas for policy adjustment. Furthermore, regional disparities in income and quality of life call for a complex approach to rural, urban, and cohesion policies. Addressing these disparities necessitates tailored strategies that consider both the economic and social dimensions of regional inequality.

Regional income distribution patterns reveal a clustering effect, with regions sharing similar economic conditions often grouped both within and across national borders. As elaborated in Rodríguez-Pose and Tselios (2009), northern and urban regions demonstrate higher levels of economic development and lower inequality, while southern and rural regions exhibit the opposite trend. This clustering underscores the interplay between geographical location, economic development, and income inequality, offering insights into the structural factors shaping regional disparities.

Income inequality in Serbia has been a persistent issue. Krstić (2016) observed the Gini coefficient reaching 38.7 in 2013, positioning the country among those with the highest levels of inequality in Southeast Europe. This inequality is evident not only between the employed and unemployed but also among individuals within the workforce. Although tax and benefit policies have contributed to reducing income disparities, their overall impact remains limited compared to EU standards, highlighting the need for systemic reforms. In transition economies, income inequality tends to rise in the initial phases as resources shift from the state to the private sector, leading to wage disparities driven by deregulation and liberalization. However, as transition stabilizes, wages tend to reflect workers' characteristics, such as education and experience, while market competition helps to mitigate further inequalities (Zarkovic-Rakic et al., 2019). A decomposition of income inequality in Slovenia,

Croatia, and Serbia further indicates that wage income constitutes the primary factor contributing to disposable income inequality across all three countries. In Serbia, pensions represent the second-largest contributor (Krstić, 2021). Despite these findings, wage inequality in Serbia remains relatively moderate when compared internationally, as earnings disparities are less pronounced than those observed in overall income distribution (Aleksić, 2023). Furthermore, from 2006 to 2017, Serbia experienced real growth in average consumption by 11.8%, with the lowest-income decile recording an increase of approximately 21%, while the first seven deciles exhibited above-average consumption growth, indicating some degree of economic improvement among lower-income groups (Mladenović, 2019). Veličković and Jovanović (2021) analyze the feasibility of sustainable rural development in Serbia, identifying both available resources and structural constraints. Their study underscores the need for significant investments and reforms to enhance rural development and improve current conditions.

2. Data and Methodology

The studies devoted to research of rural-urban and regional disparities, employ diverse datasets, methodologies, and research goals. For instance, large-scale surveys, such as the EU Statistics on Income and Living Conditions (EU-SILC) employed by Meloni et al. (2024), European Values Study (2008), utilized in Carson et al. (2022) to investigate rural-urban differences in life satisfaction, and the European Quality of Life Survey (2003), applied in Zarifa et al. (2019) to explore income and well-being disparities across urban and rural areas. The European Community Household Panel (ECHP) dataset, covering the years 1995–2000, (Rodríguez-Pose and Tselios, 2009), maps regional income and inequality trends across Western Europe. The analysis in Gaubert, et al. (2021) relies on data from the Federal Statistical Office of Germany to examine urban-rural differences at the NUTS 3 level. Norwegian municipal register data (2005–2016) underpin Mantino, (2022) the analysis of labor migration and income inequality, while regional data from Latvia (Sloka, 2019) and statistical data on household revenues in Romania (Chivu et al. 2015) provide insights into income disparities and their socio-economic consequences.

This study utilizes data from the EU-SILC, conducted in Serbia in 2022. The EU-SILC survey targets all private households and individuals aged 16 and over residing in the Member States at the time of data collection, excluding those in collective households or institutions. It was launched in 2004. Data collection is conducted by National Statistical Institutes using a mix of surveys and register data, incorporating both cross-sectional and longitudinal elements. EU-SILC provides microdata on income, poverty, social exclusion, and living conditions, with topics ranging from household-level income and housing to individual-level demographics, education, labor, health, and income. Income data typically refers to the year preceding the survey and is collected in accordance with international standards. SORS is collecting data in Serbia from 2013.

To classify households as rural or non-rural, the study employs the Degree of Urbanization variable provided by EU-SILC. Consistent with the approaches of Bernard

(2019) and Meloni et al. (2024), a dichotomous rural/non-rural classification was created, enclosing cities, towns and suburbs as non-rural.

Numerous studies (Alexandri et al., 2015; Grzega, 2019; Meloni 2023, 2024; Schnorr-Baecker; 2021; Sloka et al., 2019) demonstrate that individuals living in rural areas tend to have lower income levels compared to their counterparts in urban and non-rural regions across Europe. This disparity reflects structural economic differences, including limited access to high-paying employment opportunities, fewer industries, and reduced economic diversification in rural settings. Additionally, rural areas often face challenges such as weaker infrastructure, lower levels of education and skills among the population, and reduced access to essential services, which further exacerbate income inequalities. These gaps are particularly pronounced in countries with stark regional disparities, where rural regions lag significantly behind urban centers in terms of economic development and living standards. As a result, the rural-urban income divide remains a persistent and multifaceted issue, deeply embedded in Europe's socioeconomic landscape. Therefore, we use logarithm of the average disposable household income per inhabitant as a dependent variable. We choose logarithm over linear form due to normality issues with income distribution.

A set of independent dummy variables are defined in a following way. Rural dummy variable is a crucial variable in our analysis. However, additional control variables that account for key characteristics that influence income levels are gender, education, working status, retirement status and household size.

Table 1: Variable definition

Variable	Definition
Rural	1 if household is located in rural area, 0 otherwise.
Gender	1 if an individual is female, 0 otherwise.
Edu1	1 if an individual has more than lower secondary education, 0 otherwise.
Edu2	1 if an individual has more than post-secondary non-tertiary education, 0 otherwise
Work	1 if person is working, 0 otherwise.
Retirement	1 if person is retired, 0 otherwise.
Hsize	The number of individuals in the household.

Source: Author

To examine income disparities between rural and non-rural areas, we define six distinct models that differ in the inclusion of specified variables and geographic scope. More specifically, we distinguish between models incorporating only the Rural variable and those including the Rural variable alongside other defined variables. Furthermore, the analysis is conducted at two levels: for the entire territory of the Republic of Serbia (RS) and for its NUTS1 regions (RS1 and RS2).

Table 2: Model definitions

Region	RS	RS1	RS2
Rural variable	Model 1	Model 3	Model 5
Rural and control variables	Model 2	Model 4	Model 6

Source: Author

3. Results and discussion

The initial dataset involved 15398 individuals. Following tests for normality and the identification of multivariate outliers, 2751 entries were excluded, resulting in a final sample of 12647 individuals. The distribution of individuals and households regarding the urbanization division is presented in Table 3. The degree of urbanization methodology (Eurostat, 2025) classifies local administrative units (LAUs) into cities, towns and suburbs, and rural areas based on 1 km² population grid cells, ensuring uniformity in classification. This two-step process first categorizes grid cells by population density, contiguity, and size, then classifies LAUs based on where their populations reside: cities ($\geq 50\%$ in urban centers), towns and suburbs ($\geq 50\%$ in urban clusters, $< 50\%$ in urban centers), and rural areas ($> 50\%$ in rural grid cells).

Table 3: Distribution of households and individuals per level of urbanization

Level of urbanization	Households	Individuals
Rural	2004	5677
Non-rural	2750	6970
Total	4754	12647

Source: Author's calculations from EU-SILC database for Serbia, 2022

The initial step in data analysis involved testing for significant differences in income with respect to the predictor variables. We emphasize that this represents a univariate analysis, where each predictor is analyzed independently, excluding all others from the current examination. As it can be seen from Table 4, all predictors have a statistically significant impact on income.

Table 4: Income comparisons per groups

Dichotomous variable	Average of log Income per group		t
	0	1	
Rural	12,7717(0,4771)	12,6002(0,4841)	19,974**
Gender	12,7063(0,4986)	12,6839(0,4858)	2,582*
Edu1	12,5156(0,4863)	12,7563(0,4729)	-24,786**
Edu2	12,6346(0,4747)	12,9928(0,4398)	-33,773**
Working	12,3786(0,4763)	12,7556(0,4660)	-32,852**
Retired	12,6675(0,4970)	12,7542(0,4615)	-9,570**

Notes: Standard errors in parentheses; ** $p < 0,01$; * $p < 0,05$

Source: Author's calculations from EU-SILC database for Serbia, 2022

The findings presented in Table 4 can be summarized as follows: there are statistically significant differences in the average logarithm of income per individual between rural and non-rural areas, with higher income levels observed in non-rural areas. Gender also plays a statistically significant role in income disparities, with male individuals exhibiting higher average income levels. Both education variables indicate that individuals with higher levels of education have significantly higher average incomes. As expected, individuals who are

employed have statistically higher incomes, a trend that is also observed among retired persons.

The correlation between household size and the logarithm of average household income is negative (-0,212) and statistically significant ($p < 0,001$), indicating that an increase in the number of household members is associated with a reduction in average household income.

In Table 5 and Table 6 we summarize findings of models 1-6.

Table 5: Coefficients for models 1 and 2

Coefficient	Model	
	1	2
R Square	0,0306	0,2198
(Constant)	12,7717(0,0058)**	12,4308(0,0164)**
Rural	-0,1715(0,0086)**	-0,0615(0,0081)**
Gender		-0,0193(0,0077)*
Edu1		0,1917(0,0095)**
Edu2		0,2543(0,0108)**
Retirement	-	-0,0203(0,0092)*
Work		0,3711(0,0109)**
Hsize		-0,0485(0,0021)**

Notes: Standard errors in parentheses; ** $p < 0,01$; * $p < 0,05$

Source: Author's calculations from EU-SILC database for Serbia, 2022

To present the findings, we begin with Models 1 and 2, which focus on the entire territory of the Republic of Serbia. The model that includes only the variable Rural explains 3.1% of the variation in income levels. The coefficient for the Rural variable is negative, indicating that rural households have 17% lower income levels compared to non-rural households. The inclusion of control variables in Model 2 significantly improves the explanatory power, with 22% of the variation in the logarithm of household income explained by this model. Moreover, the coefficient for the Rural variable decreases, suggesting that the included control variables contribute to a more extensive understanding of income disparities. The direction of the coefficients aligns with the results from the univariate analysis. Female individuals have 1,9% lower income levels. Individuals with education levels higher than lower secondary education earn 19% more, while those with more than post-secondary non-tertiary education have a 25% higher income. Retired individuals, on average, earn 2% less, whereas employed individuals have 37% higher income. Finally, an increase in household size reduces income by approximately 5%.

A similar is observed when the analysis is restricted to NUTS1 regions. The coefficient associated with the dummy variable Rural decreases upon the inclusion of control variables. The direction of the coefficients remain consistent with the broader model, with the exception that Retirement loses statistical significance in both Model 4 and Model 6, while the Model for RS2 also loses statistical significance for Gender. Interestingly, the

coefficients associated with dummy Rural are smaller in the NUTS1 regions, suggesting that the control variables provide a slightly better explanation of variations in income levels at this regional level. Our findings are consistent with the study by Meloni (2024) for low-income countries and Chivu (2015) and Sloka (2019).

Table 6: Coefficients for models 3-6

Coefficient	Model			
	3	4	5	6
R Square	0,0233	0,2279	0,0159	0,1941
(Constant)	12,8653(0,008)**	12,4574(0,0255)**	12,68(0,008)**	12,3711(0,0211)**
Rural	-0,1572(0,0144)**	-0,0552(0,0133)**	-0,1211(0,0109)**	-0,0217(0,0103)*
Gender		-0,0316(0,0119)**		-0,0139(0,0099)
Edu1		0,2368(0,0151)**		0,1598(0,012)**
Edu2		0,2186(0,0158)**		0,2832(0,0145)**
Retirement	-	-0,0215(0,014)	-	-0,0084(0,0119)
Work		0,3896(0,0176)**		0,3455(0,0137)**
Hsize		-0,0451(0,0036)**		-0,0436(0,0027)**

Notes: Standard errors in parentheses; ** $p < 0,01$; * $p < 0,05$

Source: Author's calculations from EU-SILC database for Serbia, 2022

Conclusion and future work

This study examines income disparities between rural and non-rural areas in the Republic of Serbia. The data used for the analysis were sourced from the SILC database for the year 2022. The analysis contributes to the broader research on income inequality between rural and urban regions. Our findings confirm significant differences in income levels between these areas, with introductory univariate test and a simplified model containing only a single dummy variable indicating statistically lower income in rural areas compared to urban settings. The inclusion of additional control variables, such as gender, education, employment status, and household size, enhanced the explanatory power of the model and provided a more comprehensive understanding of income disparities. The reduction in the coefficient for the Rural variable, accompanied by an increase in the coefficient of determination, suggests that the control variables capture additional dimensions of income inequality between rural and urban areas. These findings underscore the importance of policymakers focusing on increasing support for rural areas or improving the efficiency of existing policies. Targeted interventions could include initiatives to enhance access to education and employment opportunities, investments in infrastructure, and tailored programs to stimulate economic activity in rural regions. By addressing the underlying factors contributing to income disparities, such as lower levels of education attainment, limited employment opportunities, and higher household dependency ratios in rural areas, policymakers can promote more equitable economic development and reduce regional inequalities. Additionally, ensuring that existing support mechanisms are effectively

implemented and regularly evaluated for efficiency could further bridge the income gap between rural and urban areas.

Future research could expand on this study by investigating several key areas to enhance the understanding of income disparities between rural and urban regions. A valuable direction would involve the analysis of longitudinal data to examine dynamic changes in income inequality over time and to evaluate the long-term impacts of policies aimed at rural development. Furthermore, future studies could address regional and sectoral heterogeneity by exploring how differences in industrial composition, labor market structures, and access to essential services influence income levels across diverse geographic areas. An important extension would include examining the intersectional dimensions of income disparities, focusing on the roles of gender, age, and other demographic factors in shaping inequalities within rural and urban settings. The integration of geospatial data could further contribute to understanding the influence of physical access to infrastructure, including transportation, healthcare, and educational facilities, on household income. Lastly, comparative research across countries or regions with similar socioeconomic conditions could provide insights into effective policy interventions and best practices for addressing income inequality. The incorporation of qualitative methods, such as interviews or case studies, could complement quantitative analyses by offering a deeper understanding of structural and contextual barriers that may not be evident through statistical models alone.

References

- Aleksić, D. (2023). Nejednkost zarada u Srbiji. *Ekonomске Идеје и Пракса*, 50, 21–37. Doi: <https://doi.org/10.54318/eip.2023.da.348>
- Bernard, J. (2019). Where Have All the Rural Poor Gone? Explaining the Rural–Urban Poverty Gap in European Countries. *Sociologia Ruralis*, 59(3), 369–392. Doi: <https://doi.org/10.1111/soru.12235>
- Bukša, T., Bukša, J., & Kosovac, I. (2022). Effects of foreign direct investment on the economy and environment. *Journal of Process Management and New Technologies*, 10(3–4), 22–39. Doi: <https://doi.org/10.5937/jouproman2203022B>
- Carson, D. A., Carson, D. B., & Argent, N. (2022). Cities, hinterlands and disconnected urban-rural development: Perspectives from sparsely populated areas. *Journal of Rural Studies*, 93, 104–111. Doi: <https://doi.org/10.1016/j.jrurstud.2022.05.012>
- Chivu, L., Ciutacu, C., & Georgescu, L. (2015). Household Income in Romania. A Challenge to Economic and Social Cohesion. *Procedia Economics and Finance*, 22, 398–401. Doi: [https://doi.org/10.1016/S2212-5671\(15\)00310-X](https://doi.org/10.1016/S2212-5671(15)00310-X)
- Díaz-Lanchas, J., & Mulder, P. (2021). Does decentralization of governance promote urban diversity? Evidence from Spain. *Regional Studies*, 55(6), 1111–1128. Doi: <https://doi.org/10.1080/00343404.2020.1863940>

- Eurostat (2025). Degree of Urbanization: Methodology. *Eurostat*.
<https://ec.europa.eu/eurostat/web/degree-of-urbanisation/methodology>, datum pristupa 17.02.2025.
- Gaubert, C., Kline, P., Vergara, D., & Yagan, D. (2021). Place-Based Redistribution. *Working Paper 28337*. Doi: <https://doi.org/10.3386/w28337>
- Krstic, G. (2016). Why income inequality is so high in Serbia: Empirical evidence and a measurement of the key factors. *Economic Annals*, 61(210), 23–46. Doi: <https://doi.org/10.2298/EKA1610023K>
- Krstić, G. (2021). Factors Contributing to Income and Wage Inequality: Comparative Evidence from Croatia, Serbia and Slovenia. *Eastern European Economics*, 59(5), 423–448. Doi: <https://doi.org/10.1080/00128775.2021.1949352>
- Mantino, F. (2022). Rural areas between locality and global networks. Local development mechanisms and the role of policies empowering rural actors. *Bio-Based and Applied Economics*, 10(4), 265–281. Doi: <https://doi.org/10.36253/bae-12364>
- Meloni, C., Rocchi, B., Severini, S. (2023). A systematic literature review on the rural-urban economic well-being gap in Europe. *Bio-based and Applied Economics* 12(4): 305–321. Doi: <https://doi.org/10.36253/bae-13178>.
- Meloni, C., Grazini, C., Marino, M., Rocchi, B., & Severini, S. (2024). Are rural households poorer than non-rural households in Europe? *Journal of Rural Studies*, 106, 103214. Doi: <https://doi.org/10.1016/j.jrurstud.2024.103214>
- Madžar, L., Gajić, A., & Kačarević, S. (2024). The economic and environmental factors' influence on HDI in Southeast European countries. *Ekonomija: teorija i praksa*, 17(1), 19–37). Doi: <https://doi.org/10.5937/etp2401019m>
- Marković, M., & Marjanović, I. (2025). Analysis of poverty in the European Union: A cluster approach. *Economics of Sustainable Development*, 9(1), 29–38. Doi: <https://doi.org/10.5937/ESD2501029M>
- Mladenović, B. (2019). Decilna analiza potrošnje i prihoda u Republici Srbiji, Tim za socijalno uključivanje i smanjenje siromaštva Vlade Republike Srbije, https://socijalnoukljucivanje.gov.rs/wp-content/uploads/2019/06/Decilna_analiza_potrosnje_i_prihoda_u_Republici_Srbiji_lat.pdf, datum pristupa 15.02.2025.
- OECD (2020a), How's Life? 2020: Measuring Well-being, OECD Publishing, Paris, Doi: <https://doi.org/10.1787/9870c393-en>.
- OECD (2020b), Rural Well-being: Geography of Opportunities, OECD Rural Studies, OECD Publishing, Paris, Doi: <https://doi.org/10.1787/d25cef80-en>.
- Perpiña Castillo, C., van Heerden, S., Barranco, R., Jacobs-Crisioni, C., Kompil, M., Kučas, A., Aurambout, J. P., Batista e Silva, F., & Lavalle, C. (2023). Urban–rural

- continuum: an overview of their interactions and territorial disparities. *Regional Science Policy & Practice*, 15(4), 729–769. Doi: <https://doi.org/10.1111/rsp3.12592>
- Rodríguez-Pose, A. & Tselios, V. (2009). Mapping Regional Personal Income Distribution in Western Europe: Income Per Capita and Inequality, *Czech Journal of Economics and Finance (Finance a uver)*, Charles University Prague, Faculty of Social Sciences, vol. 59(1), 41-70.
- Schnorr-Baecker, S. (2021). Well-being in urban and rural areas, challenges, general policies, and their monitoring: Some evidence for Germany before and during the COVID-19 pandemic. *Statistical Journal of the IAOS*, 37(2), 495–515. Doi: <https://doi.org/10.3233/SJI-210803>
- Shucksmith, M., Cameron, S., Merridew, T., & Pichler, F. (2009). Urban–Rural Differences in Quality of Life across the European Union. *Regional Studies*, 43(10), 1275–1289. Doi: <https://doi.org/10.1080/00343400802378750>.
- Sloka, B., Jekabsone, I., Cipane, K., & Vasina, S. A. (2019). INCOME DIFFERENCES IN REGIONS OF LATVIA – PROBLEMS AND CHALLENGES. *European Integration Studies*, 13, 52–60. Doi: <https://doi.org/10.5755/j01.eis.0.13.23562>
- Slettebak, M. H. (2021). Labour migration and increasing inequality in Norway. *Acta Sociologica*, 64(3), 314–330. Doi: <https://doi.org/10.1177/0001699320930261>
- Sørensen, J. F. L. (2014). Rural–Urban Differences in Life Satisfaction: Evidence from the European Union. *Regional Studies*, 48(9), 1451–1466. Doi: <https://doi.org/10.1080/00343404.2012.753142>
- Trpeski, P., Kozheski, K., & Merdzan, G. (2024). Labor productivity in the selected see countries: Trends and determinants. *Ekonomski horizonti*, 26(1), 79–97). Doi: <https://doi.org/10.5937/ekonhor2401079t>
- Zarifa, D., Seward, B., & Milian, R. P. (2019). Location, location, location: Examining the rural-urban skills gap in Canada. *Journal of Rural Studies*, 72, 252–263. Doi: <https://doi.org/10.1016/j.jrurstud.2019.10.032>
- Veličković, J., & Jovanović, S. (2021). Problems and possible directions of the sustainable rural development of Republic of Serbia. *Economics of Sustainable Development*, 5(1), 33–46. Doi: <https://doi.org/10.5937/ESD2101033V>
- Zarkovic-Rakic, J., Krstic, G., Oruc, N., & Bartlett, W. (2019). Income inequality in transition economies: A comparative analysis of Croatia, Serbia and Slovenia. *Economic Annals*, 64(223), 39–60. Doi: <https://doi.org/10.2298/EKA1923039Z>