

# From Rural Underdevelopment to Innovation: The Strategic Role of Skilled Labor in the South-East Development Region of Romania

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ARTICLE INFO	ABSTRACT
<p><i>Article history:</i> Received: May 06, 2025 Accepted: June 29, 2025 Published: July 01, 2025</p> <p><i>Keywords:</i> agriculture, region, labor force, development, rural</p>	<p>Romania's South-East Development Region, composed of the counties of Brăila, Buzău, Constanța, Galați, Tulcea, and Vrancea, faces systemic challenges in developing human resources in rural areas, particularly in relation to skilled labor. Inter-county disparities are evident: while counties like Constanța and Galați benefit from more advanced educational infrastructure and stronger connections to the labor market, counties such as Tulcea and Vrancea lag significantly behind in terms of vocational training and youth integration. Compared to the Centre Region, which has implemented more coherent models of dual education and public-private partnerships, the South-East Region remains a largely untapped reservoir of potential. This article analyses the key factors influencing skilled labor in rural areas, highlights the differences among counties within the region, and outlines strategic directions for balanced and sustainable development.</p>

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## 1. Introduction

The development of human resources is a key pillar in reducing the economic disparities between urban and rural areas. In Romania, these differences are particularly pronounced in the South-East Development Region, which includes the counties of Brăila, Buzău, Constanța, Galați, Tulcea, and Vrancea. Although the region has access to natural resources and a diverse economic potential, rural areas face an acute shortage of skilled labor—a phenomenon exacerbated by migration, an aging population, and limited access to vocational education.

In this context, skilled labor becomes a strategic factor not only for social inclusion but also for rural innovation and the enhancement of local economic competitiveness. Moreover, the analysis of inter-county disparities reveals uneven levels of development and varying capacities to harness training and employment opportunities. The purpose of this article is to highlight the critical role of skilled labor in rural development within the South-East Region, through a comparative analysis of its counties and by referencing good practices from other regions of the country, especially the Centre Region. The paper explores current challenges, available resources, and strategic directions for strengthening human capital in rural areas.

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## 2. Literature Review

In the specialized literature, the development of human resources is considered a fundamental factor for the economic advancement of rural areas. Theorists such as Gary Becker (1964) and Theodore Schultz (1971) have shown that investment in human capital—through education, vocational training, and skills development—is one of the most effective ways to reduce regional inequalities and promote sustainable development. Similarly, Amartya Sen (1999) emphasizes the role of economic and educational freedoms in expanding individual capabilities, which are crucial in rural contexts.

Closer to Romania's realities, studies by the World Bank (2018, 2020) draw attention to the large gaps between urban and rural areas in terms of education and access to economic opportunities. The report "Romania: Systematic Country Diagnostic" highlights that the high rate of NEET (Not in Education, Employment, or Training) youth in rural areas reflects a structural crisis in vocational education and a disconnect between labor market demand and the education system.

Romanian research also provides valuable insights. The Institute for Educational Sciences (ISE, 2016) and the Research Institute for Quality of Life (ICCV, 2022) have shown that school dropout and economic migration severely affect the sustainable development of Romanian villages. In addition, research by the Aspen Institute Romania (2021) underscores the need for coordinated interventions between schools, local administrations, and the business sector to develop relevant skills at the local level.

In terms of best practices, international literature highlights successful models for rural human capital development, such as the one implemented in the Opole region of Poland, where vocational education is aligned with regional labor market needs and supported by public-private partnerships. The CEDEFOP report "Vocational Education and Training in Europe" (2020) demonstrates how dual education and multifunctional community centres contribute to the revitalization of rural areas in several European countries.

At the national level, programs such as POCU (Operational Programme for Human Capital) and the PNRR (National Recovery and Resilience Plan) are important mechanisms for supporting social and professional inclusion in Romania's rural communities. However, the literature indicates that implementation has been fragmented and that there is a lack of an integrated vision for rural human capital development (Zamfir & Mihăilescu, 2019; Lupaşcu, 2022).

Therefore, the literature offers a solid foundation for understanding the complexity of skilled labor in rural contexts, while also highlighting the need for coherent and context-sensitive policies tailored to the specific characteristics of each region, including the South-East.

## 3. Results

The comparative analysis of counties in the South-East Region reveals significant differences in the development of human resources and access to vocational training in rural areas. For instance, Constanța and Galați benefit from stronger educational infrastructure and better connectivity to urban labor markets, which facilitates the integration of young people into training and employment. By contrast, counties such as Tulcea and Vrancea are marked by geographical isolation, high school dropout rates, and a low number of vocational training centres.

Brăila, although equipped with a reasonable network of technical high schools, struggles to adapt its educational offer to the actual needs of the rural economy. In Buzău County, vocational training initiatives have been more active in recent years, but the absence of stable partnerships with local employers limits their long-term impact.

A common issue across all counties is the lack of mechanisms to track the professional insertion of graduates, making it difficult to evaluate the effectiveness of existing training programs. Moreover, the limited involvement of local authorities in supporting rural vocational training reflects an over-reliance on external projects or ad hoc funding.

Compared to the Centre Region, which has systematically implemented dual education and regional training hubs, the South-East Region remains at a disadvantage. In counties such as Sibiu or Alba, partnerships between schools, businesses, and public authorities have led to the development of well-structured educational pathways aligned with local economic needs. This model could be replicated in the South-East, with adjustments tailored to each county's specific context.

**Table 1. Inter-county Differences in Access to Vocational Training and Youth Vulnerability in the South-East Region (2023)**

County	Rural Unemployment Rate (%)	NEET Youth (%)	Vocational Training Centers	Active POCU/PNRR Programs
Brăila	6.8	18.5	3	2
Buzău	5.7	16.9	4	3
Constanța	4.3	14.2	6	5
Galați	5.1	15.8	5	4
Tulcea	7.2	21.3	2	1
Vrancea	6.5	19.6	3	2

*Source: author, data processing based on (Institutul National de Statistica, 2025)*

The comparative data among the counties of the South-East Region highlight significant discrepancies in the structure of human resources and access to vocational training. Constanța and Galați stand out positively, with the lowest rural unemployment rates (4.3% and 5.1%, respectively), the highest number of vocational training centres (6 and 5), and a relatively large number of active programs funded through POCU or the PNRR. In contrast, Tulcea and Vrancea record the highest percentages of NEET youth (21.3% and 19.6%) and the lowest institutional capacity, with only 1–2 active programs and 2–3 training centres.

Brăila and Buzău occupy an intermediate position, though Brăila's high NEET rate (18.5%) signals specific local social vulnerabilities. These disparities point to the need for differentiated approaches and county-level policies tailored to the demographic, economic, and geographic realities of each territory.

To synthesize possible development trajectories for the South-East Region in relation to the role of skilled labor, three key scenarios are outlined below.

**Table 2. Development Scenarios for the South-East Region Through the Lens of Skilled Labor**

Element	Pessimistic Scenario	Realistic Scenario	Optimistic Scenario
<i>General Context</i>	Lack of strategic intervention	Isolated, uneven progress	Integrated and coordinated regional vision
<i>Rural Migration</i>	High, irreversible	Stabilized in more active areas	Reduced, with some return migration in innovative areas
<i>Skilled Labor</i>	Marginal, under-supported	Locally developed but lacking regional coherence	Central to the rural economy
<i>Access to Training</i>	Limited and poorly aligned with labor market needs	Available in some counties	Widely accessible, adapted, and digitally supported
<i>Rural Innovation</i>	Virtually absent	Selective, concentrated in local hubs	Broad, supported by regional networks and partnerships
<i>Economic Impact</i>	Continued rural economic decline	Slow, uneven growth	Rural revitalization with regional development potential

Source: author

In conclusion, the analysed data highlight a significant regional potential that remains largely underutilized. While there are promising local initiatives, the lack of strategic coherence and inter-institutional collaboration hinders the development of a skilled and competitive rural workforce.

#### **4. Territorial Transitions: From Vulnerability to Innovation Potential in the Counties of the South-East Region**

The comparative analysis of counties in the South-East Region shows that the transition from underdevelopment to rural innovation is not occurring uniformly. Data on rural unemployment, the share of NEET youth, the number of vocational training centres, and the implementation of European programs reveal three main categories of counties:

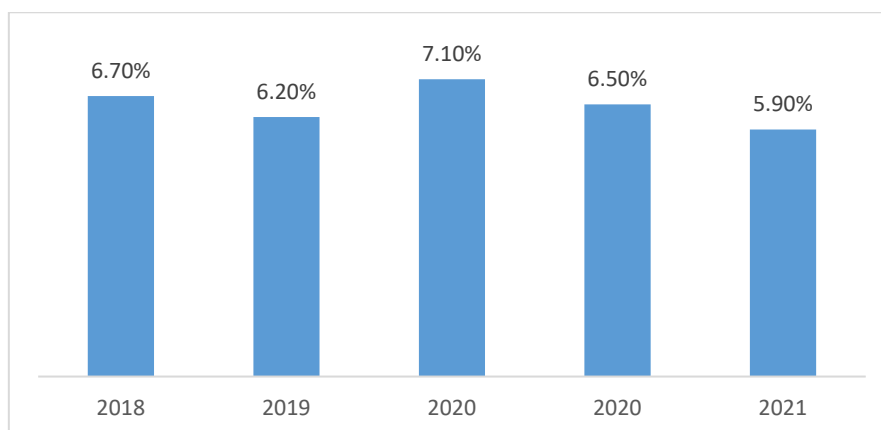
**Stagnant counties (Tulcea, Vrancea):** With the highest rural unemployment rates (above 6.5%) and alarmingly high NEET rates (over 19%), these counties are characterized by geographic isolation, acute depopulation, and a limited number of vocational training initiatives. Poor connectivity and weak local partnerships make it difficult to escape the vicious cycle of underdevelopment.

**Transitional counties (Brăila, Buzău):** Although facing similar challenges, these counties show a greater development potential, having active training centres and an educational infrastructure more closely linked to urban networks. However, results remain fragmented, and the lack of a coherent strategic framework limits the scaling of initiatives.

Emerging counties (Constanța, Galați): Benefiting from proximity to major university and industrial centres, these counties have developed stronger partnerships among schools, local governments, and the economic sector. POCU and PNRR programs are better implemented here, and training centres are more numerous and aligned with labor market needs.

This typology reveals an uneven regional dynamic and underlines the need for differentiated and targeted public policies.

Skilled labor plays a strategic role in rural transformation. Vocational training not only facilitates access to employment but also lays the groundwork for the emergence of diversified, innovative, and sustainable economic activities: agrotourism, creative crafts, rural digital entrepreneurship, and green services. In stagnating counties, skilled labor can break the cycle of poverty and exclusion. In emerging counties, it can serve as a catalyst accelerating development through innovation.



**Figure 1. Evolution of Rural Unemployment Rate in the South-East Region (2018–2022)**

*Source: author, data processing based on (European Commission, 2025)*

Between 2018 and 2022, the rural unemployment rate in the South-East Region showed a general downward trend, with a slight increase in 2020 due to the COVID-19 crisis. After 2021, a renewed decline was observed, partly driven by the intensification of vocational training programs and employment support measures. However, these positive developments should be interpreted with caution, as they mask significant internal disparities among counties and do not necessarily reflect the quality of jobs or the qualification level of the employed.

A relevant example is training in digital competencies and rural entrepreneurship for youth, which offers not only professional skills but also a new economic identity anchored in modernity and local autonomy.

The Centre Region—especially the counties of Sibiu and Alba—offers a successful model for transitioning to a modern rural economy based on qualified human capital. Through the development of dual education, investment in training infrastructure, and systematic collaboration among schools, local authorities, and the business sector, these counties have managed to attract and retain young people within their communities.

Transferring good practices from the Centre Region to the South-East Region could represent a viable strategic direction for accelerating rural innovation, provided these practices are adapted to each county's specific context.

In contrast, in the South-East Region, such collaborations are often isolated or dependent on temporary external funding. The lack of an integrated regional vision hinders the replication of successful models.

Another important aspect is institutional capacity: in the Centre Region, local administrations are more actively involved in drafting rural development strategies and in attracting funding for vocational training. Additionally, educational institutions in the Centre are more digitalized, which facilitates access to courses and career counselling for young people.

**Table 3. Comparative Overview – South-East vs. Centre Region (2023)**

Indicator	South-East Region	Centre Region
<i>Rural Unemployment Rate (%)</i>	6.5%	4.8%
<i>NEET Youth (%)</i>	17.7%	14.3%
<i>Vocational Training Centres (estimated)</i>	23	31
<i>Post-Training Employment Rate (%)</i>	42%	59%

*Source: author, data processing based on (Institutul National de Statistica, 2025)*

The comparative table reveals significant differences between the South-East and Centre Regions in terms of skilled human resources and the effectiveness of vocational training programs. The Centre Region reports a lower rural unemployment rate (4.8% compared to 6.5%) and a smaller proportion of NEET youth (14.3% compared to 17.7%), suggesting more effective youth integration into the labor market. Additionally, the estimated number of vocational training centres is higher in the Centre (31 vs. 23), reflecting a more developed infrastructure and a broader educational network.

The most relevant indicator is the post-training employment rate, which reaches 59% in the Centre Region, compared to only 42% in the South-East. This gap highlights not only the quality of training programs but also the existence of a more favourable economic environment for employment and career continuity in the rural areas of the Centre. The obvious conclusion is that the South-East Region could substantially benefit from adapting certain elements of the model implemented in the Centre Region, especially in terms of education-economy partnerships and regional strategic planning.

## 5. Conclusions

The transition from underdevelopment to innovation in rural areas of the South-East Region fundamentally depends on the quality and availability of skilled human resources. The comparative analysis of the counties reveals significant discrepancies in access to vocational training, the NEET youth rate, and the institutional capacity to attract and implement human capital development programs.

Counties such as Constanța and Galați demonstrate greater rural innovation potential, supported by educational infrastructure and functional partnerships between education and the economy. In contrast, counties like Tulcea and Vrancea continue to face systemic obstacles that hinder socio-economic progress and reinforce professional exclusion.

The comparison with the Centre Region—particularly Sibiu and Alba—reveals best practices that can be adapted and replicated: the integration of dual education, continuous training in locally relevant occupations, and active support from county administrations in securing funding for human resource development. In the South-East, such initiatives do exist, but they are scattered and often lack strategic coherence.

To accelerate this transition toward rural innovation, an integrated regional vision is essential focused on the following priorities: developing vocational training infrastructure in rural areas, expanding dual education, digitalizing access to training, encouraging the return of young people, and creating local learning ecosystems.

In conclusion, skilled labor should not be viewed merely as a short-term employment solution, but rather as a transformative driver of the rural economy—one capable of fostering social cohesion, local entrepreneurship, and regional competitiveness in a sustainable and inclusive manner.

## References

1. *European Commission*. (2025). Retrieved from <https://ec.europa.eu/eurostat>
2. *Institutul National de Statistica*. (2025). Retrieved from <https://www.statistici.insse.ro>
3. Balasan D. L., Buhociu F.M., (2025), Sustainable Agricultural Development in the Southeast
4. Region of Romania, Journal of Agriculture and Rural Development Studies, Volume 2 – Issue 1- 2025, ISSN Online 3061-2756, [www.imadr.jards.ugal.ro](http://www.imadr.jards.ugal.ro), DOI <https://doi.org/10.35219/jards.2025.1.08>
5. Balasan D. L., Buhociu D.H., (2020), The Evolution of Economic Activity in the Rural Area of Region 2 South – East, The 3rd International Conference on Resources Economics and Bioeconomy in Competitive Societies (RebCos'20) under the title Environmental Challenges, Innovative Technologies and Rural Areas in Digital Era, <https://rebcos.eu/deadlines/>
6. Becker, G. S. (1964). Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education. University of Chicago Press.
7. Bleahu A., (2005), Rural development in the European Union, January.
8. Bold I., Buciuman E., Drăghici N., (2003), „Rural space – definition, organization, development”, Timisoara, Publishing House Mirton.
9. Botti S., McGill A. L., The Locus of Choice: Personal Causality and Satisfaction and Utilitarian Decisions, Journal of Consumer Research, 2011.
10. Buhociu F.M., (2016), Territorial resources for supporting sustainable rural development in the European context, Publishing House Europlus, Galati.
11. Buhociu F.M., Antohi V.M., Moga L.M., (2009), The Common Agricultural Market and its Effects Upon European Union Countries Agriculture and Budget, Annals of Dunarea de Jos University, Fascicle I, Economics and Applied Informatics, nr. 2.
12. Charles R., (2000), Cross-border cooperation manual for the use of local and regional authorities in Europe, 3rd Edition, Bucharest.
13. Constantin D.L., (2010), Regional Economics. Theories, Models, Policies, Publishing House ASE București.
14. Lupașcu, D. (2022). Formarea profesională în mediul rural: politici și realități. Revista de Economie Socială, 11(2), 45–58.

15. Lupașc I., Lupașc A., Andone I., (2010), Using Intelligent Technologies for Improving Decisional Processes, Iași.
16. Man O., Zugravu A., Neculiță M., Nechita D., (2009), Methods of subsidizing the cost of irrigation – a parallel between irrigated agriculture from Spain, France and Romania, Simpozionul internațional Competitivitatea agriculturii românești în procesul de integrare europeană, Publishing House ARS Academica, Bucharest.
17. Moga L. M., Buhociu F. M., Ion I., Vîrlănuță F. O., Antohi V., Zugravu A., (2009), The Internet as a Business Environment in Romanian Agriculture, Journal of Food, Agriculture & Environment (JFAE) Vol. 7 (2).
18. Schultz, T. W. (1971). Investment in Human Capital: The Role of Education and of Research. Free Press.
19. Sen, A. (1999). Development as Freedom. Oxford University Press.
20. Stanciu, S., (2016), The Foreign Direct Investment in The Romanian Agrifood Production, Sea Practical Application of Science, IV. 2(11)/2016.
21. Stanciu, S., (2019), Quality of Romanian Food Products in Rapid Alert System for Food and Feed Notifications, World Academy of Science, Engineering and Technology International Journal of Nutrition and Food Engineering, 13(2).
22. Turek M., Zugravu A., Nicolae C., Rădulescu C., (2011), Fishery farm management – effects and opportunities in the functioning of the food market, Publishing House Terra Nostra, Iasi.
23. Zamfir, C., & Mihăilescu, A. (2019). Capitalul uman și dezvoltarea regională în România. București: Editura Economică.
24. Zugravu A., Neculiță M., Turek Rahoveanu M. M., (2010), Information System for Financial Analysis and Economic Planning within Fish Farms, The XVIIth International Conference IBIMA (International Business Information Management Association), Business Transformation through Innovation and Knowledge Management, Proceedings ISI, classification B ERA, 23-24 June 2010, Istanbul, Turkey.