

**ECONOMIC AND SOCIAL EVOLUTION OF HUNEDOARA COUNTY
BETWEEN 2013 AND 2023**

**TOMUȚA GEORGETA ANGELICA¹, ORBOI MANUELA – DORA^{2,1*}, BĂNEȘ ADRIAN³,
RAICOV MIROSLAV³, ADAMOV TABITA CORNELIA¹**

¹*University of Life Sciences “King Mihai I” from Timișoara, Faculty of Management and Rural
Tourism, 119 Calea Aradului, 300645, Timis, Timisoara, Romania*

²*University “Aurel Vlaicu” of Arad, The Faculty of Educational Sciences, Psychology and
Social Work, 2 Elena Drăgoi, 310330, Arad, Arad, România*

³*Romanian Academy - Timișoara Branch, 24 Mihai Viteazu Blv., 300223, Timiș, Timișoara*

*Corresponding author's e-mail: orboi@usvt.ro

***Abstract:** The paper “Economic and social evolution of Hunedoara County between 2013 and 2023” aims to highlight the main economic and social transformations that have marked the evolution of the county. The analysis is based on quantitative statistical data from official sources, providing a complex picture of regional development processes. The research is structured on two major directions: the economic and social dimensions. On the social level, the study addresses aspects related to demographic evolution, the migration phenomenon, the educational level and the health status of the population, emphasizing the impact of youth migration on local human capital and on sustainable development prospects. Although Hunedoara County has made visible progress in diversifying its economy and modernizing its infrastructure, important challenges persist regarding reducing unemployment, integrating young people into the labor market, and reducing social and economic imbalances between the different areas of the county.*

Key words: *evolution, economic, social, diversification, development*

INTRODUCTION

Hunedoara County, located in the central-western part of Romania, in the West development region, has a history marked by industrial activities, especially in the mining and steel sectors. After 1989, Hunedoara County experienced a difficult transition from a centralized industrialized economy to a market economy, characterized by restructuring, increasing unemployment and migration. In the last decade, in the period analyzed between 2013 and 2023, Hunedoara has gone through a complex process of economic and social adaptation, with varied effects on the population, infrastructure and business environment. In Hunedoara County, unemployment, this economic phenomenon had negative effects that became more evident in certain periods.[1]

Investigating demographic trends in Hunedoara County during the period 2013-2023 requires a detailed analysis of the evolution of the population, its components (birth rate, mortality, migration) and the age structure of the population. Understanding these demographic dynamics is essential to assess the impact of migration on the active population and, implicitly, on the labor market and economic potential of Hunedoara County.

Given the analysis we have conducted, the main challenges facing Hunedoara County in terms of sustainable economic and social development can be summarized as follows:

- **Economic Challenges:**

- *Economic legacy and the continuing decline of traditional industry:* The historical dependence on the coal-based mining and energy sector continues to be a major challenge. The closure of mines and the need to transition to a greener economy are generating job losses and reducing economic activity in mono-industrial areas.

- *Insufficient speed of economic diversification:* The process of developing alternative sectors (tourism, renewable energy, services, value-added manufacturing) has

not fully compensated for the decline of traditional industries, leaving the county vulnerable.

- *Limited attraction of investments*: Hunedoara County is not perceived as a priority destination for significant investments, due to the underdeveloped infrastructure, the economic image in transition and the competition with other regions.

- *Poor infrastructure*: The lack of modern road and rail connections, as well as uneven access to high-speed internet, limits labor mobility, attracts less investment, and hinders business development.

- *Labor shortage and skills*: The emigration of young and skilled people, along with a potential mismatch between available skills and the requirements of new sectors, represents a barrier to economic growth.

● **Social Challenges:**

- *Depopulation and population ageing*: Continued emigration, especially of young people, and low birth rates lead to a decline in the active population and demographic ageing, with implications for the labour market, pension system and social services.

- *High levels of poverty and social exclusion*: Certain communities in the county face persistent poverty and social exclusion, limiting human capital and social cohesion.

- *Unequal access to quality services*: There may be geographical disparities in access to quality education, health and social assistance services, affecting the quality of life and opportunities for certain population groups.

- *Social impact of economic restructuring*: Mine closures and economic transition can generate social problems, such as long-term unemployment, difficulties in adapting the workforce and social tensions in the affected communities.

● **Sustainability challenges:**

- *Environmental impact of past industrial activities*: Soil, water and air pollution caused by past industrial activities require remediation efforts and can affect the health of the population and the attractiveness of the region.

- *The need for a transition to a green economy*: Adapting to decarbonisation policies and developing sustainable economic alternatives (renewable energy, eco-tourism) is a challenge, but also an opportunity.

- *Sustainable management of natural resources*: Ensuring responsible use of natural resources (water, forests) and protecting biodiversity are essential for long-term sustainable development.

● **Cross-cutting challenges:**

- *Administrative capacity and governance*: The efficiency of local public administration, the capacity to attract and manage European funds and the quality of governance are crucial to address all these challenges.

- *Collaboration and partnerships*: The lack of effective collaboration between authorities, the business environment, civil society and educational institutions can hinder the implementation of coherent and efficient development strategies.

Addressing these interconnected challenges requires an integrated strategy for sustainable economic and social development, which capitalizes on existing opportunities, attracts investments, develops human capital, protects the environment and ensures efficient governance.

Given the identified challenges, Hunedoara County has a number of significant opportunities that, if strategically exploited, can contribute to the sustainable economic and social development of the county, as well as increasing the quality of life.

MATERIALS AND METHODS

The socio-economic context of Hunedoara County is complex, with a rich industrial history, but faced with major challenges related to economic restructuring and the need to attract new development opportunities. The analysis is based on quantitative data from official sources, such as the National Institute of Statistics and the National Employment Agency. The study focuses on two major directions: the county's economy and the social aspects that influence the quality of life of the population. From an economic perspective, the paper analyzes the structure of the main economic sectors in the county, placing particular emphasis on the transition from an industrial economy, dominated by mining and steel, to a diversified economy, which includes tourism, agriculture, IT and services. On the social level, the paper examines the demographic dimension, forced migration, education and health, with a special focus on the migration of young generations and its effects on local human capital.

RESEARCH RESULTS

The GDP of Hunedoara County increased from approximately 10428.5 million lei in 2013 to 20192.3 million lei in 2022, but the growth rate was lower than the national and regional average.[4,6] This growth was influenced by the development of the service sector and one-off investments in tourism, for example Corvin Castle, Sarmizegetusa Regia.

Table 1.

**Evolution of Gross Domestic Product in Hunedoara County
(million lei current prices)**

Specification	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
West Region	60529,9	61339,4	67446,5	74234,5	80895,3	89326,9	100106,3	98183,8	107996,0	122477,3
Hunedoara	10428,5	10917,1	10878,5	12046,5	13561,7	14784,3	16313,7	16401,9	17876,7	20192,3

Source: *Anuar Statistic județul Hunedoara 2017, 2020, 2024* [4-6]

The evolution of unemployment in Hunedoara County between 2013 and 2023 reflects the slow and often difficult transition from an economy based on heavy industries to one adapted to current requirements. The unemployment rate decreased from 7.5% in 2013 to 4.5% in 2023.[7,17] (table 2) During the period 2013-2019 it had a downward trend, reaching 3.0% in 2019, followed by a period of growth from 3.0% to 4.5% due to economic recovery, digitalization and infrastructure investments. A coherent, multi-sectoral strategy for economic development and vocational training, adapted to the local specifics, would be necessary to consolidate the labor market and reduce unemployment in Hunedoara County.

Table 2.

Evolution of the unemployment rate in Hunedoara County (%)

Specification	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
West Region	4.0	3.4	3.0	3.0	2.2	1.8	1.7	2.2	1.9	1.9	1.9
Hunedoara	7.5	6.6	6.1	6.1	4.5	3.4	3.0	3.4	4.0	4.0	4.5

Source: *Anuarul statistic al României, 2019, 2021, 2022, 2024* [12,14,15,17]

The county's population has decreased from over 410,000 inhabitants in 2013 to 356,283 in 2023.[7,17] (table 3) The population decline is caused by the low birth rate, youth migration and the aging of the county's population. The population aging trend has a profound impact on all future generations and on economic and social activities: the labor market, social protection, education, culture, etc.[3]

Table 3.

Population evolution in Hunedoara County (number of persons)

Specification	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
West Region	1,821,283	1,821,447	1,807,264	2,011,888	1,788,588	1,781,054	1,774,624	1,765,054	1,751,900	1,967,793	1,672,971
Hunedoara	410,127	410,168	401,298	467,675	390,891	386,157	381,922	376,932	370,619	438,144	356,283

Source: Anuarul statistic al României, 2014-2024 [7-17]

During the analyzed period, the birth rate (number of live births per 1000 inhabitants) in Hunedoara County had a period of growth between 2013-2018, followed by a downward period until 2023 when it reached 6.2%. [7,8,9,10,11,12,13,14,15,16,17] Regarding the mortality rate (number of deaths per 1000 inhabitants), it had an increasing trend, from 13.5% in 2013 to 15.2% in 2023, reaching a significant increase of 18.6% (2020), respectively 21.4% (2021) during the pandemic. [7,8,9,10,11,12,13,14,15,16,17] (Table 4)

Table 4.

Natural population movement in Hunedoara County (%)

Specification	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Live-births	7.0	7.7	8.4	7.8	8.5	8.5	8.0	7.7	7.9	6.7	6.2
Deaths	13.5	14.2	14.5	13.0	14.8	15.1	15.3	18.6	21.4	14.6	15.2
Natural increase	-6.5	-6.5	-6.1	-5.2	-6.3	-6.6	-7.3	-10.9	-13.5	-7.9	-9.0

Source: Anuar Statistic județul Hunedoara 2017, 2020, 2024; Anuarul statistic al României, 2014-2024 [4-17]

Migration is a crucial factor in demographic dynamics, especially in the current economic context. Data on changes of residence can provide information about the attractiveness of Hunedoara County as a place to live and work compared to other regions. As for the flow of people who moved from or to other counties of Romania, it was negative, the number of people who left the county was higher than the number of people who arrived, during the analyzed period. [7,8,9,10,11,12,13,14,15,16,17] This negative trend is found in the urban environment of Hunedoara County. (Table 5)

Table 5.

Internal migration of the population in Hunedoara County (number of persons)

Specification	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
In-migrants	5,769	5,988	5,915	6,309	6,365	6,305	6,467	5,734	5,558	7,264	6,578
Out-migrants	7,357	7,522	7,406	7,905	7,798	7,745	8,021	7,246	7,238	8,645	7,909
Balance	-1,588	-1,534	-1,491	-1,287	-1,433	-1,440	-1,554	-1,512	-1,680	-852	-1,331

Source: Anuarul statistic al României, 2014- 2024 [7-17]

The consequences of population ageing and migration represent significant challenges for the labour market, pension system and social services in Hunedoara County, similar to the trends observed at national and European level.

The impact on the Labour Market is observed as follows:

- *Reduction and ageing of the labour force*: Emigration of young people and people of working age, combined with a low birth rate, leads to a decrease in the number of people available for work. At the same time, the share of older people in the active population is increasing, which may influence productivity and require adaptations of workplaces and human resources policies.

- *Labour shortage in specific sectors*: Emigration may exacerbate the lack of qualified personnel in certain economic sectors, affecting their competitiveness and development capacity. Hunedoara County, in economic transition, could encounter difficulties in finding a workforce with the necessary skills for new emerging sectors.

- *Wage pressures*: The decrease in labor supply may generate pressure to increase wages, but this may be difficult for some local businesses to sustain, especially in sectors with lower productivity.

- *The need to attract and integrate labor from other regions or countries*: To compensate for the demographic deficit, it may be necessary to implement policies to attract labor from other areas of the country or from abroad, with challenges related to social and cultural integration.

Impact on the Pension System:

- *Increasing the demographic dependency ratio*: Population ageing leads to an increase in the number of retirees relative to the number of active contributors. This puts significant financial pressure on the public pension system, which has to support an increasing number of beneficiaries with a relatively smaller number of contributors.

- *Financial sustainability of the pension system*: To ensure the sustainability of the system, structural reforms may be necessary, such as increasing the retirement age, changing the pension calculation formula or stimulating private pensions.

- *Impact of migration on contributions*: Emigration of the active population reduces the number of contributors to the pension system, while immigration (if significant) could have a compensating effect, but it depends on the employment rate of immigrants.

Impact on Social Services:

- *Increased demand for elderly care services*: Population ageing will generate an increasing demand for long-term care services, geriatric medical services and other forms of social assistance dedicated to the elderly.

- *Pressure on health services*: The elderly population generally has more complex and costly health needs, which will increase the pressure on the health system.

- *Reduced financing capacity*: The decline in the working population and pressures on the pension system could reduce the state's capacity to adequately finance social services for all categories of beneficiaries.

- *Need for adaptation of services*: Social services will need to adapt to the specific needs of an ageing population and, possibly, of more culturally diverse communities in the event of an influx of migrants.

- *Impact on services for children and families*: Youth emigration may lead to a decrease in the number of young families and the number of children, which could reduce the demand for certain services dedicated to them (e.g. nurseries, kindergartens), but could increase the need for support for families left with elderly people.

Solving social problems, adjusting the economic structure, and improving the technical and economic level depend on the ability of local people to use technology to reasonably optimize available resources and reduce natural and man-made hazards.[2]

Population aging and migration are major demographic trends that will continue to profoundly influence the labor market, pension system, and social services in Hunedoara County. Addressing these challenges requires integrated and proactive policies aimed at stimulating the birth rate, facilitating the integration of underrepresented groups into the labor market, reforming the pension system, and adapting social services to the needs of a changing population.

CONCLUSIONS

Capitalizing on economic, social, and sustainable development opportunities requires strategic vision, coherent public policies, smart investments, and effective collaboration between all relevant actors in Hunedoara County. By focusing on the region's strengths and adapting to global trends, the county can build a sustainable economic and social future for all its residents.

In the analyzed period 2013-2023, among the weaknesses of Hunedoara County, we specify: the stable population of the county shows a decreasing trend, the rural population shows a greater decrease in the rural area compared to the urban area, the female population shows a greater decrease than the male population, the decrease in the birth rate and the aging of the population, the decrease in the number of live births, negative natural increase with a tendency to increase, the county's population has an increasingly pronounced tendency of aging and feminization, the increase in the number of people who have changed their residence in Hunedoara County, the increase in the number of departures from urban localities, the increase in the number of departures from the county and the reduction in the number of those who establish their residence.[18]

Based on the detailed economic and social analysis for the period 2013-2023, the main challenges and opportunities for the sustainable economic and social development of Hunedoara County can be identified, including:

► **Main Challenges:**

- *The continuing decline of traditional industry:* The historical dependence on the mining and energy sector (based on coal) represents a major challenge. The closure of mines and the transition to a greener economy can generate unemployment, depopulation and a decrease in local incomes if not managed effectively.

- *Emigration and depopulation:* The negative migration balance, especially among young people and qualified people, leads to a decrease in the active population, demographic aging and labor shortages in certain sectors.

- *Insufficiently developed infrastructure:* The lack of modern road and rail connections, as well as limited access to high-speed internet services in certain areas, can hinder economic development and attract investment.

- *Education and skills level of the workforce:* There may be a mismatch between the skills of the available workforce and the requirements of new economic sectors. Insufficient investment in education and training may perpetuate this problem.

- *Limited investment attractiveness:* The perception of the region as dependent on declining industry and underdeveloped infrastructure may make Hunedoara County less attractive to private investors, both domestic and foreign.

- *Persistent social problems:* High levels of poverty and social exclusion in certain communities, limited access to quality social services and regional disparities may affect social cohesion and development potential.

- *Environmental impact:* Previous industrial activities have left behind environmental problems (contaminated land, water and air quality), which require investment to remediate and may affect the quality of life and attractiveness of the region.

- *Administrative capacity and governance:* The efficiency of local public administration, the capacity to attract and manage European funds and the quality of governance are crucial factors for the implementation of development strategies.

► **Main Opportunities:**

- *Diversified tourism potential:* The rich historical and cultural heritage (Corvin Castle, Sarmizegetusa), spectacular natural landscapes (Retezat National Park, Țara

Hățegului Dinosaur Geopark), spa resorts and local traditions offer significant potential for the development of sustainable tourism.

- *Renewable energy resources*: Hunedoara County has potential for the development of solar, wind and biomass energy projects, contributing to the energy transition and creating new economic opportunities and jobs.

- *Availability of European funds*: The Just Transition Mechanism and other European funding programs offer significant opportunities for investments in economic diversification, professional reconversion, infrastructure and environmental protection.

- *Strategic geographical position*: The county's location in western Romania, with relatively good access to Central European markets, can be capitalized on for the development of logistics and industrial activities.

- *Existing human capital*: Even though it is facing emigration, the county still has human capital with industrial experience that can be retrained and adapted to the new demands of the labor market.

- *Development of the service sector*: There is potential for the growth of the service sector, especially in areas such as IT, consulting services, medical and educational services, which can attract investment and create jobs with high added value.

- *Agriculture and food industry*: Capitalizing on agricultural land and local culinary traditions through investments in modern agriculture and in agricultural product processing units can create a competitive agri-food sector.

- *Collaboration and partnerships*: Intensifying collaboration between local authorities, the business environment, educational institutions and non-governmental organizations can generate synergies and attract resources for sustainable development projects.

These challenges and opportunities are interconnected and require an integrated strategic approach for the sustainable economic and social development of Hunedoara County.

The consistent and coordinated implementation of the recommendations for political and economic decision-makers in Hunedoara County can significantly contribute to the transformation of Hunedoara County into a vibrant, socially inclusive and sustainable economic region, with a high quality of life for all its citizens.

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