

DEMOGRAPHIC TRANSFORMATIONS WITH EMPHASIS ON RURAL AREAS IN GIURGIU COUNTY, ROMANIA

Marian DUMITRU, Elena TOMA (DIACONU)

University of Agricultural Sciences and Veterinary Medicine Bucharest, 59 Marasti, District 1, 11464, Bucharest, Romania, Phone/Fax: 00 40 744 6474 10; E-mails: dumitrumariancatalin@yahoo.co.uk, elenatoma2001@yahoo.com

Corresponding author: elenatoma2001@yahoo.com

Abstract

This study uses census data from the National Institute of Statistics to investigate the evolution and structure of the employed population in Giurgiu County and Romania. The dynamic and structural analysis was used to detect important trends in labour market participation, demographic transitions, and sectoral employment distribution. The findings for rural areas show a fall in the active population, with rural areas witnessing a greater reduction. Structural analysis of data from 2021 census reveals shifts in employment sectors, with agriculture declining while industry and services rising. In addition, we examine migratory trends and their effects on local economies. The findings shed light on the difficulties and opportunities in workforce development.

Key words: demographic trends, employed population, structural changes

INTRODUCTION

Romania is encountering a concentration of resources in major urban areas. The industry, construction, and commerce sectors serve as polarising forces for the labour market, evidenced by a notable decline in agricultural employment [5] [13]. Also, Romania is facing an ageing population as a result of demographic and economic changes over the last three decades, such as the deindustrialisation of cities [15]. Due to occupational restructuring, younger people tend to migrate to cities, abroad, or settle in peri-urban areas [9]. The situation is even more evident in the southern and eastern regions of the country, especially in rural areas, where structural changes have led to an increase in the number of pensioners and a high pressure on social protection systems [11] [14].

The South-Muntenia region, for example, shows a negative population trend, accompanied by a negative natural increase and an increase in life expectancy and the number of people over 60 [3]. Giurgiu County from this region is one of the least affected by migration due to its proximity to Bucharest job poles [10]. However, we must draw attention to the fact that Giurgiu has always

been considered an agricultural county due to its geographical conditions [2, 6], but, despite this, in recent years, the population employed in agriculture has decreased considerably due to changes in the labour market [8]. The shift from subsistence agriculture to more modern forms of employment has been slow, mainly due to the ageing population and the low attractiveness of rural jobs for younger generations [1].

Additionally, the fragmentation of agricultural land and insufficient investment in infrastructure have limited the county's ability to capitalise on its fertile soil and favourable climate conditions [4]. In parallel, the urbanisation trends in Romania have led to an increase in polarisation between urban and rural areas. While cities like Bucharest continue to attract a significant workforce, rural counties like Giurgiu struggle with depopulation and economic stagnation [7].

Overall, the demographic and economic transformations in Giurgiu County reflect broader national trends: rural areas experience significant challenges due to labour migration, ageing populations, and structural economic shifts. Addressing these issues requires a comprehensive approach.

MATERIALS AND METHODS

Our research throws light on the complex socio-economic dynamics in Giurgiu and Romania, focusing on key challenges and opportunities for the labour market.

This analysis uses statistical research methods to consider demographic and economic trends in Giurgiu County and Romania by using data published by the National Institute of Statistics from population and housing censuses. The study incorporates both dynamic and structural analyses, thereby giving a complete overview of time changes and the distribution of employed people. The dynamic study considered the employed and inactive population changes in different reference periods by comparing between different censuses to detect trends of importance such as increase or decrease of certain demographic categories. The structural analysis discussed employed people

distributions by economic sector, social category, and residential area, thereby accentuating the disparities between rural and urban areas and different fields of activity as well. In this manner, we identified the dominant economic sectors and trends in labour force specialization.

RESULTS AND DISCUSSIONS

The evolution of the population in Romania after 1948 was characterized by a sharp dynamic over two decades and a continuous decrease in the last 40 years. Urbanization started to take shape between 1948 and 1956, and the collectivization process reached its conclusion between 1956 and 1966. Compared to 1948, according to the 2021 census, the population of Romania increased by 20% (Table 1).

Table 1. Population between 1948 and 2021, Romania and Giurgiu County

	Romania			Giurgiu		
	Total	Urban	Rural	Total	Urban	Rural
1948	15,872,624	3,713,139	12,159,485	313,793	30,197	283,596
2021	19,053,815	9,939,102	9,114,713	262,066	75,117	186,949
1956/1948	110.2	147.4	98.8	103.6	108.0	103.1
1966/1956	109.2	133.5	98.2	98.5	120.2	96.1
1977/1966	112.9	128.6	103.1	102.3	131.5	98.2
1992/1977	105.8	131.9	85.6	95.7	180.6	79.8
2002/1992	95.1	92.3	98.3	95.1	95.1	95
2011/2002	92.8	95.0	90.4	94.5	92.8	95.2
2021/2011	94.7	91.5	98.4	93.1	91.4	93.8
2021/1948	120.0	267.7	75.0	83.5	248.8	65.9
2021/1992	83.5	80.2	87.5	83.6	80.7	84.9
2021/2011	94.7	91.5	98.4	93.1	91.4	93.8

Source: Own calculation on the basis of data from NIS [12].

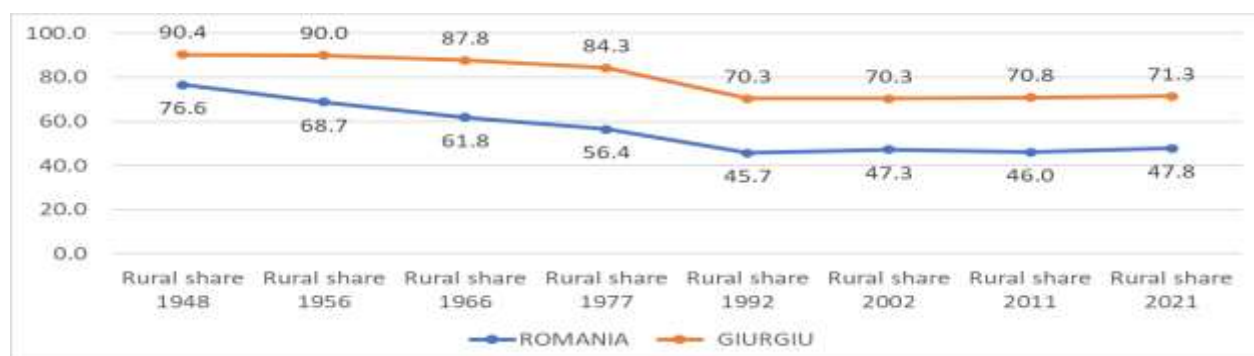


Fig.1. Share of rural population in Romania and Giurgiu County

Source: Own design and calculation based on the data from NIS [12].

However, very large gaps are observed in terms of residence areas, namely an increase of 167.7% in urban areas and a decrease of 25% in rural areas. The largest increases in

urban areas were during the industrialisation period, and they continued until 1992. Each census in the following decades recorded decreases of about 5-7% after this year.

In Giurgiu, the urban population grew greatly until 1992 (even by 80% between 1977 and 2002). Although there were decreases in the following decades, data show that in 2021 the urban population was almost 150% higher than in 1948. However, the high share of the rural population, which was in continuous decline after 1956, led to a depopulation of the county, especially in rural areas (in half a century the rural population decreased by almost 35%). From Figure 1, we can see that the major changes occurred between 1977 and 1992; after this year, the rural population was about 71%. Given that the population decreased by 16.4% between 1992 and 2021 (by 19.3% in urban areas and 15.1% in rural areas), this means that demographic changes

have affected the entire county (migration, immigration, negative natural increase, etc.) The active and employed population have the same characteristics, namely a higher share in rural areas in Giurgiu County, unlike the national average. Additionally, the majority of the unemployed reside in rural areas, accounting for 65% nationally and 80% in Giurgiu County. A very important aspect from a demographic point of view is the share of over 57% of the inactive population, which reaches 61% in rural areas nationally and 58.1% in Giurgiu County (Table 2). Structurally, the inactive population does not show major differences; over 40% are pensioners, about 30% are students, and about 10–14% are housewives.

Table 2. Population between 1948 and 2021, Romania and Giurgiu County

	Total	Urban		Rural		Total	Urban		Rural	
		2021	%	2021	2021/2011 %, +/-		2021	%	2021	2021/2011 %, +/-
Total	19,053,815	9,939,102	52.2	9,114,713	98.4	262,066	75,117	28.7	186,949	93.8
Active population	8,185,019	4,628,651	56.6	3,556,368	87.1	111,685	33,340	29.9	78,345	86.5
%	43.0	46.6		39.0	-5.1	42.6	44.4		41.9	-3.5
Employed population	7,689,171	4,453,915	57.9	3,235,256	83.9	104,513	31,951	30.6	72,562	83.0
%	93.9	96.2		91.0	-3.4	93.6	95.8		92.6	-4.0
Unemployed	495,848	174,736	35.2	321,112	139.4	7,172	1,389	19.4	5,783	188.2
%	6.1	3.8		9.0	3.4	6.4	4.2		7.4	4.0
Inactive population	10,868,796	5,310,451	48.9	5,558,345	107.3	150,381	41,777	27.8	108,604	99.9
%	57.0	53.4		61.0	5.1	57.4	55.6		58.1	3.5
Students	3,288,575	1,707,631	51.9	1,580,944	113.2	41,120	11,851	28.8	29,269	104.0
%	30.3	32.2		28.4	1.5	27.3	28.4		27.0	1.1
Pensioners	4,410,077	2,373,577	53.8	2,036,500	116.1	61,853	17,052	27.6	44,801	107.6
%	40.6	44.7		36.6	2.8	41.1	40.8		41.3	2.9
Housewives	1,169,565	334,790	28.6	834,775	128.5	20,928	4,914	23.5	16,014	112.8
%	10.8	6.3		15.0	2.5	13.9	11.8		14.7	1.7
Dependents on other persons	1,163,594	580,456	49.9	583,138	71.3	15,263	4,706	30.8	10,557	69.2
%	10.7	10.9		10.5	-5.3	10.1	11.3		9.7	-4.3
Dependents on organizations	100,422	28,291	28.2	72,131	56.3	1,288	298	23.1	990	36.6
%	0.9	0.5		1.3	-1.2	0.9	0.7		0.9	-1.6
Dependents on other sources	237,679	56,041	23.6	181,638	145.7	3,636	555	15.3	3,081	232.7
%	2.2	1.1		3.3	0.9	2.4	1.3		2.8	1.6
Other economic situation	498,884	229,665	46.0	269,219	87.6	6,293	2,401	38.2	3,892	71.9
%	4.6	4.3		4.8	-1.1	4.2	5.7		3.6	-1.4

Source: Own calculation on the basis of data from NIS [12].

In Giurgiu County, the employed population registered a decrease compared to 2011 both at the county level and in the rural area. The decrease is mainly due to the reduction of people employed in agriculture, forestry, and fishing. In fact, this branch came to represent only 16.1% of the employed population in the rural area in 2021, 41.5 percentage points less than in 2011 (Table 3). If we follow the changes in the structure through activities, we observe a greater increase in the share of

people in construction, trade, the processing industry, and transport and storage.

There are 51 localities in the rural area. In 24, we do not find any population employed in the extractive industry, and in 7, there are no people employed in financial transactions, real estate, or insurance (Fig. 2). Otherwise, in each locality, there are people employed in different branches of the national economy. We can say that in each branch we find less than 10% of the employed population.

Table 3. Changes in the structure of the employed population by branches of the national economy in Giurgiu County

	Total		Rural	
	2021 104,513 (100.0%)	2021/2011 -15,961.0 (86.8%)	2021 72,562 (100.0%)	2021/2011 -14,889.0 (83.0%)
Agriculture, forestry and fishing	11.9	-31.7 pp	16.1	-41.5 pp
Mining and quarrying	0.3	-0.2 pp	0.4	-0.3 pp
Manufacturing	14.1	6.7 pp	13.7	9.3 pp
Electricity, gas, hot water and air conditioning supply	1.3	0.0 pp	1.4	0.6 pp
Water supply; sanitation, waste management, remediation activities	2.5	1.8 pp	2.8	2.3 pp
Construction	14.6	3.1 pp	16.3	4.5 pp
Wholesale and retail trade; repair of motor vehicles and motorcycles	16.2	7.3 pp	15.0	8.6 pp
Transportation and storage	10.8	6.6 pp	9.3	5.9 pp
Hotels and restaurants	1.7	1.0 pp	1.7	1.2 pp
Information and communication	0.9	0.2 pp	0.8	0.3 pp
Financial and insurance intermediation	0.9	0.1 pp	0.7	0.4 pp
Real estate transactions	0.2	0.1 pp	0.2	0.1 pp
Professional, scientific and technical activities	1.8	1.0 pp	1.5	1.1 pp
Administrative service activities and support service activities	5.2	0.3 pp	5.9	1.7 pp
Public administration and defence; public social security	5.7	-0.7 pp	4.1	1.1 pp
Education	3.7	1.2 pp	2.9	1.1 pp
Health and social work	4.8	2.0 pp	4.1	2.1 pp
Entertainment, cultural and recreational activities	0.6	0.2 pp	0.4	0.2 pp
Other activities of the national economy	2.7	1.1 pp	2.7	1.4 pp

Source: Own calculation on the basis of data from NIS [12].

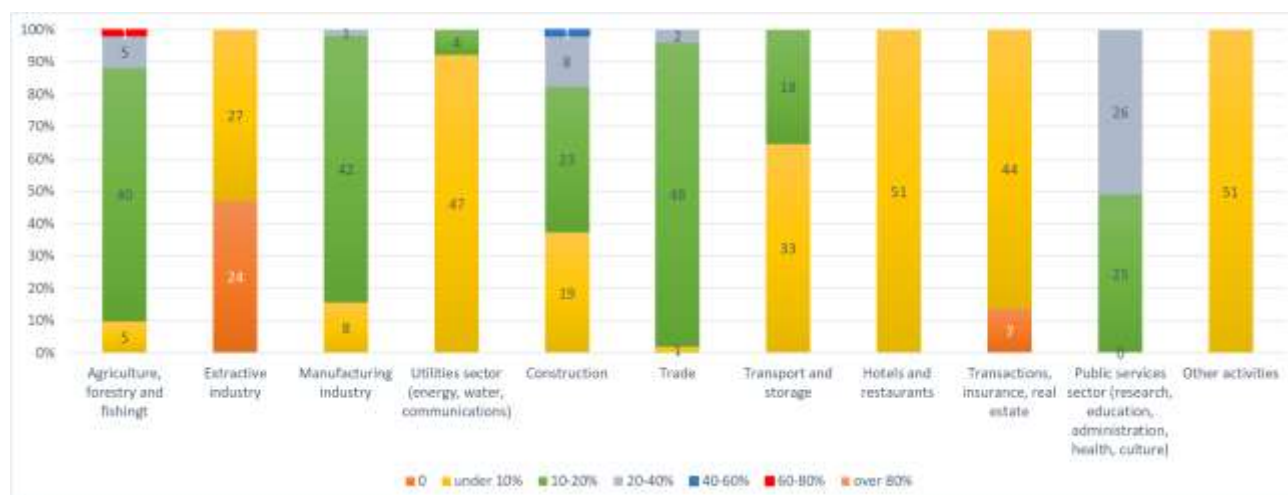


Fig. 2. Distribution of communes in Giurgiu County by economic branches depending on the degree of participation of the employed population

Source: Own design and calculation based on the data from NIS [12].

However, there are branches that generate more jobs, as follows: in the public administration sector, in half of the localities, we have percentages of 10–20%, and in the other half, percentages between 20% and 40%. Additionally, about 10-20% of the population works in trade, the manufacturing industry, and agriculture in about 40 localities. There are also exceptions. In 6 localities over 40% of the population is employed in agriculture (in one of the localities the percentage is between 60% and 80%); in 9 localities over 20% of the population works in construction (in one of the localities the percentage is between 40% and 60%); in one locality the manufacturing industry exceeds 20%, and in 2 localities trade exceeds 20%.

From Figure 3, we can see that the construction industry is growing the fastest in the north of the county. This is likely because these areas are close to Bucharest and have a better economy, which has caused a lot of people to move there. In localities such as Gaiseni, Ulmi, or Floresti-Stoenesti, the percentage of the population employed in construction reaches 40% (Fig.3). The areas coloured in green, in the centre and east of the county, show the areas where agriculture represents an important economic branch. In Colibasi, there is obviously intense agricultural activity because our population is predominantly employed in this field (65%). Moreover, in this locality, there is a very developed vegetable-growing sector,

including a local cooperative. In Schitu, 23.4% of the population works in the processing industry (metal, wood, plastic, and textiles). Thus, as can be seen, only about 20% of the localities have a business environment that creates jobs and employment, which makes it very difficult to find jobs. Of the employed population, about 1.8% have opted to find a job abroad, and around 2% do not have a permanent job (they are probably day laborers) (Table 4).

Approximately 57% of the county-level population and 48% of the rural population engage in labor activities in their locality of residence. About 5–7% work in neighboring localities, with half opting for urban areas (Bolintin Vale, Giurgiu, or Mihăilești). However, the proximity to Bucharest and the towns of Ilfov means that 40.5% of the rural employed population commute to a job in another county.

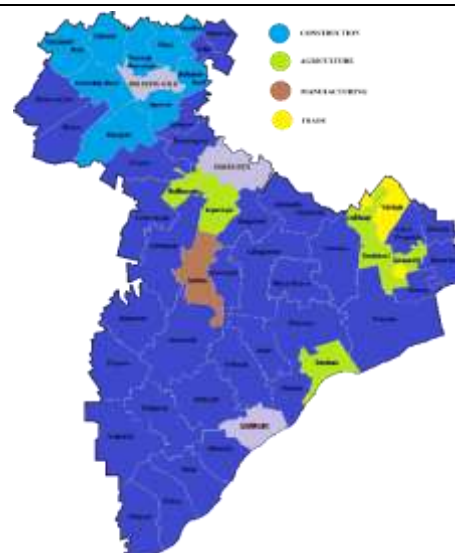


Fig. 3. Communes from Giurgiu County where the population employed in a certain branch exceeds 20% of the total employed persons
Source: Own design and calculation based on the data from NIS [12].

Table 4. The location of the workplace of the employed persons in Giurgiu County

	GIURGIU	%	RURAL	%
Resident population employed	104,513	-	72,562	
Census location	59,523	57.0	34,845	48.0
Other location in the county	6,044	5.8	5,108	7.0
Urban	3,289	54.4	3,223	63.1
Rural	2,755	45.6	1,885	36.9
Another county	34,774	33.3	29,385	40.5
Urban	30,364	87.3	25,546	86.9
Rural	4,410	12.7	3,839	13.1
Other country	1,899	1.8	1,333	1.8
Without a permanent job	2,273	2.2	1,891	2.6

Source: Own calculation on the basis of data from NIS [12].

CONCLUSIONS

At the national level, urbanization has been the primary driver of population growth; however, the shift after 1990 led to widespread population decline. Depopulation, particularly in rural areas, has significantly affected Giurgiu County. Economic transformations in recent years have resulted in a decrease in traditional activities, a shrinking active population, and limited economic diversification in rural parts of the county.

This research has led to the following conclusions: The county's population is experiencing a significant decline, with most of the inactive population consisting of retirees, especially in rural areas. The active and employed population has decreased

substantially, creating a pressing need for jobs, particularly in rural sectors. Unemployment is rising, and the number of employed individuals is declining, leading to increased dependence on social assistance and other external resources.

Several key trends have emerged regarding occupational shifts. Agriculture, a crucial component of the rural economy, continues to decline steadily. Meanwhile, sectors such as healthcare, construction, trade, and manufacturing show only modest growth, highlighting the limited economic diversification in rural areas. Many working-age individuals are migrating to urban areas or other counties in search of better opportunities.

The leading localities in the county exhibit notable differences due to their economic and

geographic characteristics. While the northern areas have seen improvements driven by construction, industrial, and logistical activities, the eastern parts remain predominantly agricultural. These variations contribute to the diverse economic landscape of Giurgiu County.

Most employed residents of Giurgiu County work within the same locality. Of the total workforce, 57% are employed in urban areas and 48% in rural areas. Around 33.3% work in other counties, primarily from rural areas, indicating a high level of dependence on urban centers for employment.

Overall, Giurgiu County's employment patterns reveal significant labor mobility, with many rural residents migrating to urban centers or other regions in search of stable employment. The economic reliance of rural areas on urban centers, combined with increasing labor migration, highlights the challenges facing the county's labor market. Addressing these issues requires targeted policies to create more stable and attractive employment opportunities within the county.

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