# THE MAIN CHARACTERISTICS OF ROMANIAN LABOUR RESOURCES IN TERITORIAL PROFILE

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#### Abstract

The paper aims to analyze the main characteristics of the Romanian labour resources between 1999 and 2019 by using the statistic database collected in territorial profile. We analyzed the civil employment population based on their territorial distribution and we correlate the results with the main economical national activities. The research proved a polarization of human resources around the important cities, but also a distribution of civil employment population in the counties from central and west part of the country where in the last two decades developed more economic branches like construction and manufacturing industries. By observing the development pattern for 1999-2019 period we can say that Romania is facing many challenges like the decrease of labour resources due to reallocation to other counties or external migration. However we also observed that the industry, constructions and commerce act as polarizing sectors for the labour force, to the detriment of agricultural activities, so the future strategies have to be oriented towards the development of business in these fields.

Key words: labour resources, civil employment population, economic national activities

#### INTRODUCTION

In the last decades the shape of Romanian economy changes, the agricultural sector becoming less important in the formation of GDP and the "share of those who are involved in agriculture as a prime activity is very low" [4]. Romania's population has followed a decreasing trend in last decades due to the low natural birth rate and migration. Also, aging of the Romanian population is another feature [6, 9]. Large discrepancies are between rural and urban population regarding the share in the total population, employment rate, productivity, income and education level [10]. Labor force is one de the main production factors in agriculture, but in the territory there is a variation in its number and share by activities [1]. In agriculture it is still a high working population compared to other EU countries [2, 3, 5]. According to [7], some regions, like the from center of the country, have an ones "optimal structure due to the decrease of employment in agriculture and industry and population growth in constructions" and the North-West, West and North-East regions need to reduce "the population in agriculture" and to "employment in industry promote

constructions to support the economic growth" [7]. In the same time the Bucharest-Ilfov Region has a high "employability of human capital in rural areas" due to the proximity of rural areas to Bucharest, the capital of Romania [11]. Starting from this researches, this paper aims to assess the mutations in labour resources during the last two decades at regional and county level and to identify the pattern of development by correlating these mutations with the structure of economy branches.

The purpose of the paper was the analysis of the main characteristics of the Romanian labour resources between 1999 and 2019 using the statistics database collected in territorial profile.

# MATERIALS AND METHODS

To assess the main characteristics of labour resources we used the time series from Tempo Online database of National Institute of Statistics from Romania. Our research focused on the dynamics and structure of labour resources, within the 1999-2019 periods and we analyzed the following main indicators: labour resources (people with the capacity to perform

work, at working age); employment rate of labour resources (the share of civil employment population in the total labour resources); the civil employed population ("who work for an income and whose work is usually done in one of the activities of the national economy" - employees, employers, self-employed and unpaid family workers). Our analyze show the evolution of labour resources at regional and county level in correlation with the development of activities of the national economy.

#### RESULTS AND DISCUSSIONS

In 2019, the Romanian population was formed by 19.3 million persons, with around 15.4% lower than 1999. This decrease is reflected in all the age groups, but during the analyzed period (of 20 years) the labour resources decreased with only 8.77% (1.18 million persons) and reached in 2019 the value of 12.2 millions ("working age population able to work as well as persons under and over the working age but who are still working") (Table 1).

The analysis in the territorial profile revealed a decrease of almost 15% in the Macroregion 2 (from east of the country) and of around 7% in Macroregion 1 (center and North of the country). However in terms on labour force the Macroregion 2 remains one of the biggest source of workforce (28.1%). Also, if we analyze the labour resources in regional profile, we observe that only in Bucharest-Ilfov Region we have an increase of 10.7% (152.2 thou

persons) which means that Romania lose around 1.8 million persons, especially due to migration.

Table 1. The evolution of labour resources, 1999-2019

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	No (mill. pers)	2019/1999 (+/-) (thou pers.)	2019/1999 (%)	1999 (%)	2019 (%)	1999-2019 Mutations (pp)
TOTAL	12.2	-1172.6	91.23	100.0	100.0	1
Macroregion 1	3.1	-220.2	93.30	24.59	25.15	0.56
North-West Region	1.6	-57.1	96.60	12.55	13.29	0.74
Centre Region	1.5	-163.1	89.87	12.04	11.86	-0.18
Macroregion 2	3.4	-595.9	85.19	30.09	28.10	-1.99
North-East Region	1.9	-281.3	87.42	16.72	16.02	-0.70
South-East Region	1.5	-314.6	82.40	13.37	12.08	-1.29
Macroregion 3	3.4	-65.1	98.10	25.65	27.59	1.93
South Region	1.8	-217.3	89.17	15.01	14.67	-0.34
Bucharest- Ilfov Region	1.6	152.2	110.69	10.65	12.92	2.27
Macroregion 4	2.3	-291.4	88.91	19.66	19.16	-0.50
South-West Region	1.2	-201.6	85.55	10.43	9.78	-0.65
West Region	1.1	-89.8	92.72	9.23	9.38	0.15

Note: "For 1990, until 2000, 16-54 years old for women and 16-59 years for man"; "For 2016-2019 - 16-60 years old for women and 16-65 years for men". Source: Own calculation on the basis of data from Tempo on line, NIS, 2021 [8].

Figure 1 reveals the economical poles in territorial profile. Like we may see, we have 4 counties in north-east and north-west which all have universities and offer more opportunities in urban areas (in cities like Cluj - Cluj County, Timișoara - Timiș County, Iași - Iași County, Oradea- Bihor County), but also we can observe how the development of Bucharest (the capital of Romania and the biggest city of our country) led to the increase of labour resources in Dambovita (DB), Giurgiu (GR) and especially in Ilfov County.

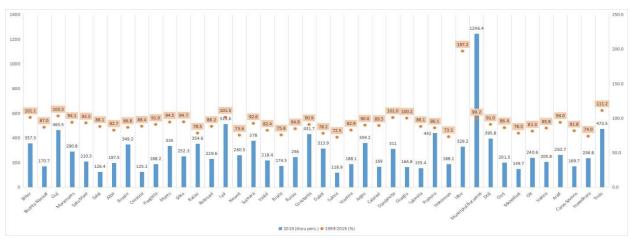


Fig.1. Labour resources mutations in territorial profile (1999-2019 period) (decrease or increase) Source: Own calculation on the basis of data from Tempo Online, NIS [8] the data from 1999 and 2019 are not directly comparable due to the difference in methodology but we consider that dynamics and structure can be comparable in trend.

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When we analyze the employment rate of labour resources the situation is different.

The share of civil employment population in the total labour resources was higher in Macroregion 3 (75.3%) and Macroregion 1 (73.3%).

At regional level, on the first place we may find Bucharest-Ilfov Region with 90.4%, North-West Region with 73.6% and Center Region (73.0%) (Fig.2). Also, we observed at county level that the increase or decrease of available labour force from above is not reflected when we analyse the rate of labour resources. The economical pols in Romania are București and Alba County with a share of civil employment population in the total labour resources over 80%. These are followed especially by counties from center and west of the country with a rate of 70-80%. On the last places are the counties form the east of the country whit a rate of 50-60% and Giurgiu County with only 47.8% (Fig.3).

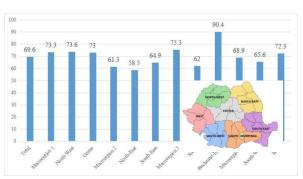


Fig. 2. Rate of labour resources in 2019 (%) Source: Own calculation on the basis of data from Tempo Online, NIS, 2021 [8].

If we correlate this evolution with the structure of employed population by activity of national economy, we can observe from the following figure that in 1999 the agriculture was the main activity in almost all the counties.

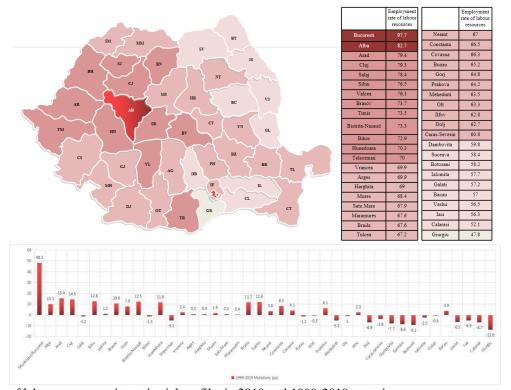


Fig. 3. Rate of labour resources in territorial profile, in 2019 and 1999-2019 mutations
Source: Own calculation on the basis of data from Tempo on line, NIS [8] the data from 1999 and 2019 are not directly comparable due to the difference in methodology but we consider that dynamics can be comparable in trend.

Two decades later, the labour resources from this sector decreased considerably especially in the counties were we have an increase of civil employment population. Also, in these counties we have an increase of activities in industry, construction and commerce (Fig. 4). The increase of the industry is due especially to the development of manufacturing sectors (only in Timiş County the population is split between manufacturing and mining and quarrying industries).

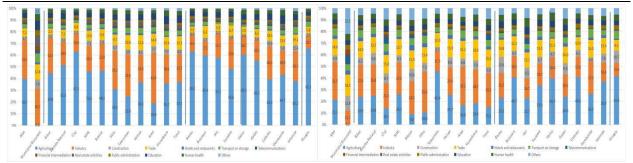


Fig. 4. Structure of civil employment population in 1999 and 2019 by activity of national economy (for the first and last counties by rate of labour)

Source: Own calculation on the basis of data from Tempo on line, NIS, 2021 [8].

The change in the structure of economy in analyzed counties reflects in the GDP per inhabitant (Table 2). Even if is over national average only in few counties, like Clui, Timis or Brasov (from the center and west of Romania), the value remains high compared with the counties with a more agricultural profile, like Giurgiu or Vaslui (from South and East of Romania).

Table 2. GDP per inhabitant, RON (2017) (for the first

and last counties b	y rate of labour)			
		Share in country		
	GDP/pers.	GDP/pers.		
TOTAL	43,788.8	100.0		
Alba	44,090.5	100.7		
Bucuresti	114,182.1	260.8		
Bihor	35,157.4	80.3		
Bistrita-Nasaud	31,901.7	72.9		
Cluj	61,160.6	139.7		
Salaj	35,308.8	80.6		
Brasov	52,562.8	120.0		
Sibiu	48,723.3	111.3		
Teleorman	23,899.6	54.6		
Valcea	32,558.7	74.4		
Arad	44,807.6	102.3		
Hunedoara	34,687.7	79.2		
Timis	55,637.6	127.1		
Bacau	27,106.2	61.9		
Botosani	22,176.4	50.6		
Iasi	36,062.8	82.4		
Suceava	25,215.1	57.6		
Vaslui	20,414.6	46.6		
Galati	28,655.1	65.4		
Calarasi	26,260.5	60.0		
Dambovita	30,066.6	68.7		
Ialomita	29,470.7	67.3		
Giurgiu	28,355.6	64.8		

Source: Own calculation on the basis of data from Tempo on line, NIS, 2021 [8].

#### CONCLUSIONS

The main conclusion we can extract from this research is that Romania is facing many challenges (the decrease of labour resources. the polarization of resources around big cities, reallocation to other counties or external migration). Also, the industry, constructions and commerce act as polarizing sectors for the labour force due to an evident reduction of employment in agriculture. The future strategies regarding human resources have to be oriented towards the development of business in these fields to reduce the gaps between counties and regions.

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