CONDITION, PROBLEMS AND PERSPECTIVES OF THE LABOR FORCE IN RURAL AREAS OF BULGARIA

MIKOVA, ROSIZA[1]

Abstract

The specific features in the socio-economic development of rural areas in Bulgaria are the basis of non-uniform processes and trends in the formation of local labor force contingents. Based on data from the population and housing censuses conducted in 2011 and 2021, the dynamics of the labor force in rural areas of Bulgaria, as well as its structure by age, gender and education, are analyzed in this study. The research aims to outline the regions with the most serious problems with the reproduction of the labor force through a comparative analysis of the potential of the labor force in rural areas, urban areas and the average level for the country. Emphasis is placed on the impact of changes in the age structure of the working-age population (aging) on the general level of activity, as well as the degree of demographic and economic burden on the labor force throughout the study period. The changes in the structure of the labor force in rural areas are examined in detail and the prospects for the reproduction of the labor force in the short term are outlined. Based on the conclusions, some of the problems facing the effective use of the available labor force in rural areas were analyzed and recommendations were formulated regarding the necessary and adequate changes in the demographic policy, to promote the birth rate and retain a young labor force in the local labor markets.

Keywords: Labor force, aging, unemployment, demographic reproduction, rural areas
JEL: *J20; J21; E24*

Introduction

Trends in the development and formation of the labor force in villages are largely in line with the demographic processes in rural areas (Chopeva, 2019). The lack of economic efficiency in the villages affects migration processes and accelerates the emigration of young people. Negative demographic trends lead to the deterioration and aging of the labor force and the limitation of labor supply in rural areas. The periods of the global financial crisis (2009-2011) and 2020-2021 (COVID-19) also contributed to a significant decrease in employment, an increase in unemployment, significant regional differences in labor supply and demand, and several other challenges facing the labor market. This determines the relevance of the present study, namely to highlight the factors determining the changes in the formation of the labor force in rural areas.

The topic related to the study of the factors affecting the state and development of the labor force in Bulgaria has been covered in the works of several publications (Zlatinov, 2010; Atanasova and Malamova, 2011; Moraliiska-Nikolova and

[1] Assis. Prof. Dr. Rosiza Mikova, Institute of Agricultural Economics, Agricultural Academy, Bulgaria, e-mail: rositzamikova@abv.bg

Borisova-Marinova, 2011; Borisova-Marinova, 2016; Chopeva, 2019; M. Atanasova, I. Beleva and al. 2018; Ravnachka, 2021; Shopov, Mishev and Bogdanov, 2006 and other).

The object of research is the labor force in the rural areas of Bulgaria during the period 2011-2021.

The subject of the study is the dynamics of the number and structure of the labor force in the rural areas of Bulgaria.

The purpose of the article is to examine the dynamics of the labor force through statistical analysis of the indicators for characterizing its number and structure in connection with establishing the trends and regularities of the economically active population in the rural areas of Bulgaria during the period 2011-2021.

Research methodology

In the present study, based on available information, the labor force in the rural areas of the country is examined. The definition of rural areas was used according to Ordinance № 14/01.04.2003 of the MAF and MRDPW. According to this regulation, 232 municipalities are designated for rural areas. The term labor force refers to the current economically active population of rural areas in the country, which consists of two subgroups – employed and unemployed persons during the observed period, i.e. persons who invest or offer their labor for the production of goods and services (www.nsi.bg, 2023).

The limiting conditions of the study in terms of the time range are reduced to the period 2011-2021, for which comparability and comparability have been established in the data used. It is necessary to note that in the characterization of the age structure of the labor force, the age of 15 years was adopted as the lower age limit of the economically active population in connection with the alignment of the methodology for monitoring the labor force with that of EUROSTAT, which was used in the census in 2011 and 2021. From the beginning of 2021, the current monitoring of the labor force, which is carried out by the NSI, is carried out by the requirements of Regulation (EU) 2019/1700, which requires changes in the methodology of the monitoring, and the results of the monitoring of the labor force are not fully comparable to those of the last two censuses.

The scope of the present study includes data on the number of the labor force and its constituent components – employed and unemployed persons, as well as indicators of the composition of the labor force according to the characteristics of „gender", „age" and „education".

To achieve the purpose, the present study used the method of analysis and synthesis, statistical methods, for the analysis of structural changes, the tabular method, graphic images, etc. For the calculations related to the application of the statistical methods, the program product MS Excel was used, and the map was prepared with the software ArcMap (ArcGIS ESRI), version 10.6.

Results and discussion

The dynamics in the labor force are indicative of the direction of development of socio-economic processes, both in the country and in rural areas. The general trend of reduction in the absolute number of the labor force as a whole for the country is more pronounced in rural areas. Between 2011 and 2021, the number of the labor force decreased by 13.3%, or 2 percentage points more than the national average (Table 1). The reasons are the negative natural growth of the population due to the decrease in the birth rate and the migrations of the working-age population.

The trend in the change in the number of employed persons in rural areas for the study period 2011-2021 shows a decrease and is similar to that of urban areas and the country (Table 1). In 2021, the number of employed persons in urban areas is 1,835,877 people or 69%, and in rural areas, it is 825,414 people or 31%. There is also a significant decrease in the number of unemployed persons in rural areas by 31.3% in the period 2011-2021. Compared to urban areas, the number of unemployed persons in rural municipalities is higher (14.1%). The reason for higher unemployment is the strong dependence of some municipalities on agriculture, as the agricultural sector and rural residents still face structural problems in terms of production, low productivity and product quality, and difficulties in competing with imported products. The results are low incomes, poverty and lack of jobs (Moneva, 2014).

Table 1. Changes in the labor force aged 15 to 64 and persons outside the labor force in rural areas of Bulgaria, 2011 – 2021

Years		Bulgaria	Rural areas	Urban areas
2011	Labor force	3329683	1133404	2196279
	Busy faces	2834834	904378	1930456
	Unemployed persons	494849	229026	265823
	Persons outside the labor force	3059615	1369852	1689763
2021	Labor force	2953937	982834	1971103
	Busy faces	2661292	825415	1835877
	Unemployed persons	292645	157419	135226
	Persons outside the labor force	1234012	547019	686993

Source: Based on NSI

At the regional level, the dynamics of the labor force show a decreasing trend in 190 rural municipalities (Figure 1). During the entire period 2011-2021, 42 municipalities made an exception, which noted an increase in the number of the labor force. These municipalities are located along the Black Sea Coast (Nesebar, Dolni

Chiflik, Aksakovo, Suvorovo), Stara Zagora region (Gurkovo, Maglizh and Niko-laevo); Upper Thracian Lowland (Kaloyanovo, Bratya Daskalovi, Saedinenie, Rakov-ski, Maritsa, Rodopi, Kuklen), Sofia agglomeration (Kostinbrod, Bozhurishte, Gorna Malina and Elin Pelin); Pleven region (Dolna Mitropolia, Knezha and Dolni Dabnik). The growth of the labor force in these municipalities is largely due to several socio-economic characteristics of the labor resources, especially in the municipalities with a predominant share of ethnic minorities (such as Gurkovo, Nikolaevo and Muglizh with a predominantly Roma population). The influence on the formation of the la-bor force has its economic profile and economic activity in the respective munici-palities. The opening of new jobs in the „Industry" and „Services" sectors, as well as the policy of subsidized employment carried out by the state, is one of the reasons for the increase in the number of the labor force in these municipalities.

In the period 2011-2021, the largest reduction in the labor force (over – 25%) was reported in 35 rural municipalities located partly in the Western Danube Plain (Boinitsa, Kula, Makresh), Kyustendil region (Trekliano, Nevestino and Bobov dol), Western Rhodopes (Dospat, Borino, Devin, Chepelare, Laki, Banite) and East-ern Rhodopes (Momchilgrad, Stambolovo and Ivaylovgrad). The main reason for the large outflow of labor in these municipalities is the lack of alternative economic activities that would create new job opportunities.
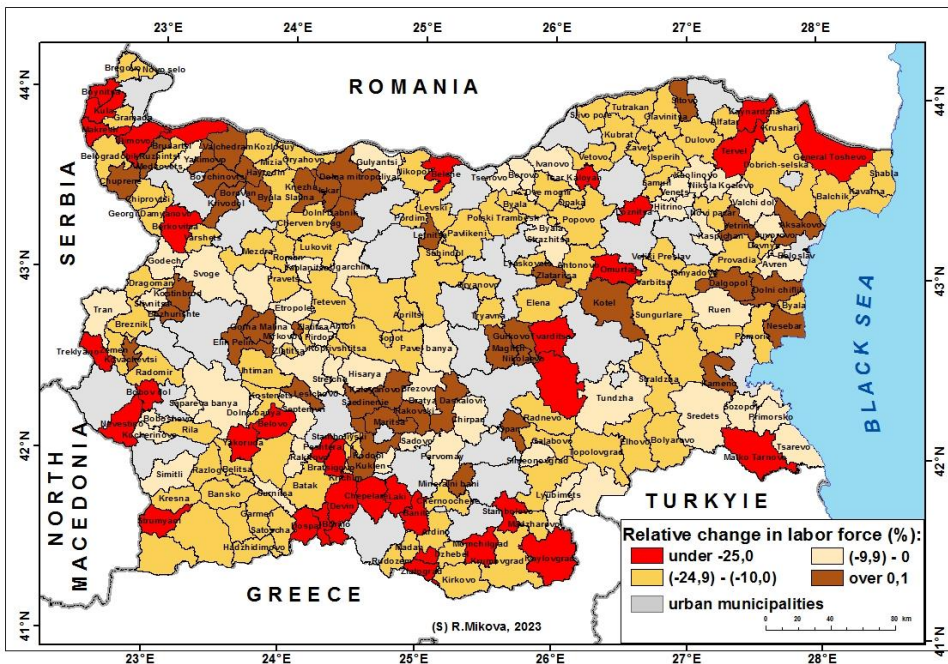

Figure 1. Relative change in the number of the labor force aged 15-64 in rural areas of Bulgaria, 2011 – 2021 (in %)
Source: author

In addition to the quantitative characteristics of the labor force, relevant changes also mark the qualitative composition of the economically active population of rural areas. Gender, age and education are the structural characteristics that have a direct bearing on the size of the labor force. During the studied period 2011-2021, a strong reduction in the number of active persons took place with the same force in both genders (Figure 2). There is a significant decrease in the labor force in both genders. The global financial crisis of 2009-2011 and (COVID-19) led to several socio-economic changes and generated many profound changes in the structure and quality of the labor force. A larger share of the labor force is men, and in 2021 their share is 53.3% against 46.7% for women, due to the existing legislative differences in the retirement age of the two genders. Early retirement, which is a possibility for some categories of work, and the regular retirement age (62 years for women and 64 years and 6 months for men) is one of the main reasons for the higher proportion of men.
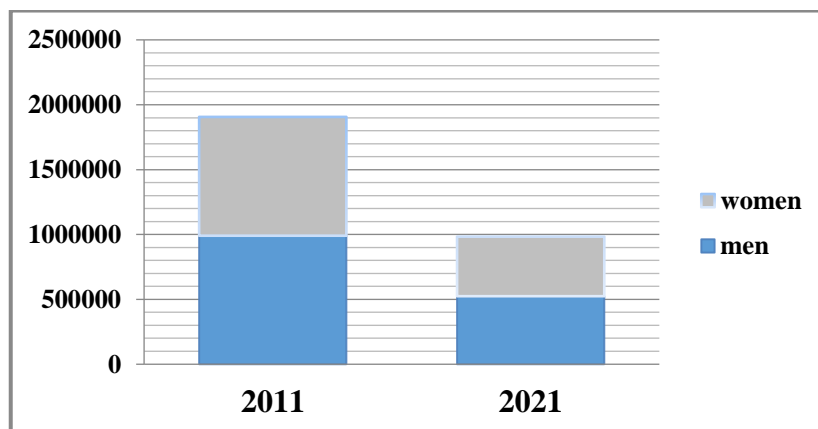

Figure 2. Economically active population (in thousands) in rural areas of Bulgaria by gender, 2011 – 2021 (in %)
Source: Based on NSI

The gender structure of the labor force is also a factor in the development of certain economic activities in rural municipalities. Men have a significant preponderance in relatively low-skilled occupations, and women in services, administration and specialized activities.

In the study of the labor market, the demographic processes show a deterioration of the age structure of the labor force in the rural areas of Bulgaria. The aging of the working-age population is an important indicator for determining the potential of the labor force (Ravnachka, 2021). Rural areas in the country are characterized by a small relative share of the labor force under the age of 24 (Figure 3). Compared to urban areas and the national average in them, the share of the labor force in the

age group 20-44 years (48.5%) is smaller compared to the share of persons aged between 45 and 64 years (50.7%). This difference is a result of some rural municipalities being heavily dependent on agriculture and low incomes, which largely explains the labor drain. Other reasons for the reduction of the young labor force in rural areas are the limited supply of jobs, lower wages for skilled labor, unfavorable working conditions, as well as living conditions that are far from satisfying the understanding and needs of young people. Depopulation and the outflow of young people from these areas, as well as the aging population in agriculture, are serious challenges to the socioeconomic and demographic development of the country.

The trends outlined are expected to continue in the coming decades, with the working-age population in rural areas declining significantly as large numbers of people retire and are replaced by a smaller labor force. According to the newspaper FINANCEBG on 02.10.2014, the economic consequences of the aging of the population on the labor market and its functioning are multidirectional: the quantity and quality of labor are expected to decrease; the impact will also be unfavorable on its price, and hence on the competitiveness of business and the economy, the quality and productivity of labor; expected changes in the educational level of the labor force, professional competencies and adaptability to changes; impacts on the stability of social systems are expected, etc.
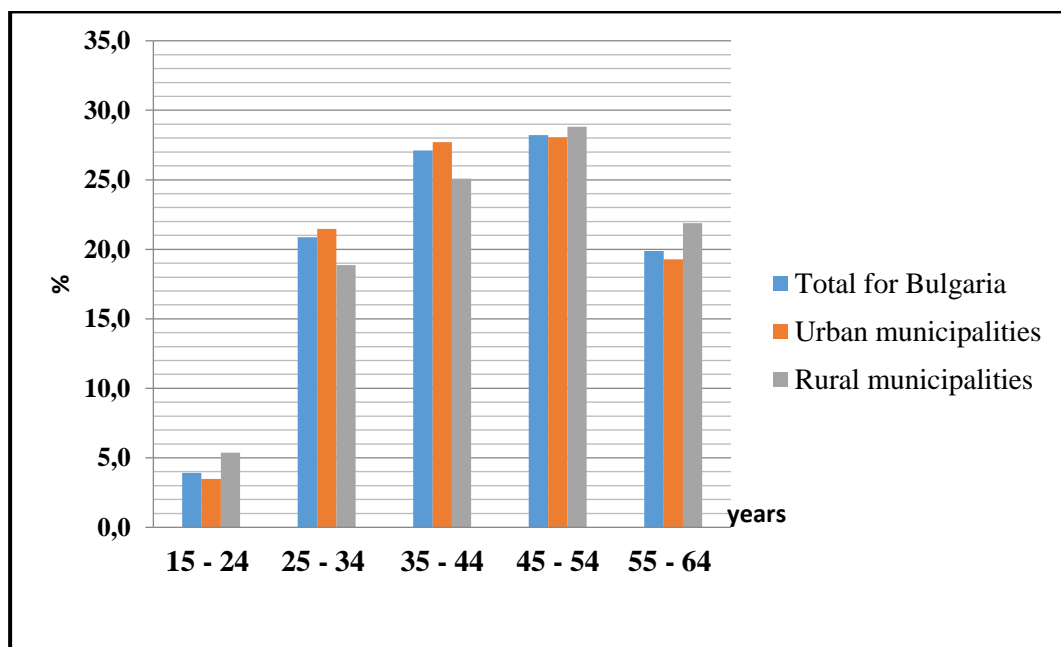

Figure 3. Distribution of the labor force by age group in 2021 (in %)
Source: Based on NSI

Education plays a key role in the life of every person and it is considered the most important capital because it creates opportunities to increase well-being not only through expanded opportunities for professional realization but also has non-market benefits such as improvements in health care, cultivation and upbringing of children, the development of individual abilities, spiritual enrichment. The acquired knowledge and skills and the duration of education determine its economic effect on the labor market.

According to official data from the last population census in Bulgaria conducted in 2021, the relative share of the labor force with secondary and higher education in rural areas is 75.3%, and this share is 13.9 percentage points lower than the country average (Figure 4). The largest differences in the educational level of the labor force are reported between rural and urban municipalities of the country, with the share of the economically active population with secondary and higher education being significantly higher in urban areas (93%). The share of the labor force in rural areas with a lower educational level is above the national average (Figure 4). In 2021, 25.6% of the labor force in rural areas has primary and lower education, while the indicator value for urban areas is 8.9% and 11.2% for the country.

The main factors forming these differences are related, on the one hand, to the process of internal migration, in which the young population with higher education moves to cities due to better job opportunities. On the other hand, rural areas have a significant share of the elderly population (especially in villages), which generally have a lower level of education. The third, no less important aspect is related to the peculiarities of the educational structure among the various ethnic groups, especially among the Roma, whose inclusion in the educational system is a serious challenge for the various national institutions.

The reason for the concentration of the higher number of educated economically active persons in urban areas is that young people are motivated to choose a higher education institution given their prospects for professional realization and this in turn leads to the depopulation of less developed regions and deepening economic differentiation in the long term. Other reasons for the increased interest in higher education are the desire of the active population for better competitiveness in the labor market, job retention or retraining in conditions of high structural unemployment. These are all prerequisites for short-term predictions that the choice for employment of the young labor force in the future will be in urban areas.
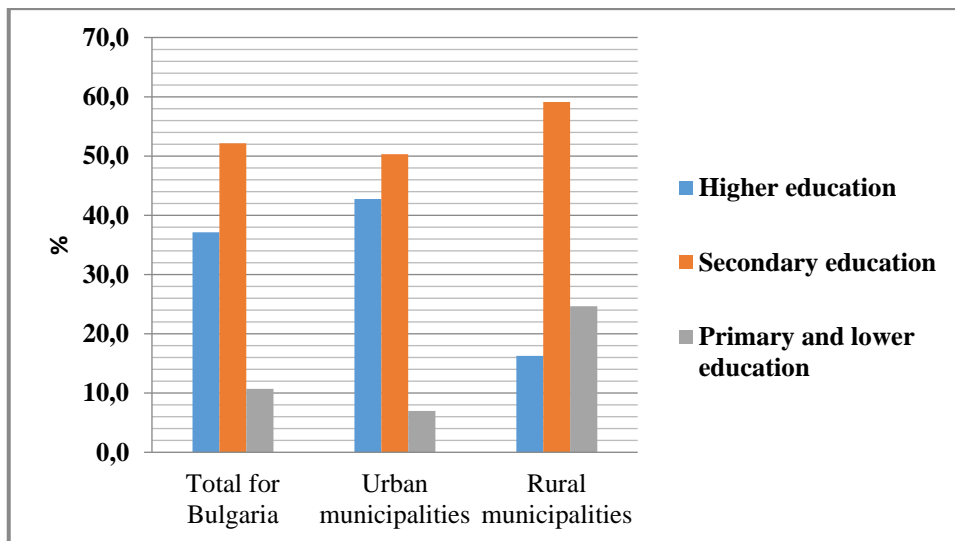
Figure 4. Educational structure of the labor force in 2021 (in %),
Source: Based on NSI

Conclusion

The brief analysis of the state of the labor force in the rural areas of Bulgaria, as well as its structure by age, gender and education, shows some characteristic features: in the first place is the problem with the low share of the labor force under the age of 24, which speaks of serious problems, related to the attraction and long-term retention of young people. Having a high proportion of an aging labor force in rural areas will put pressure on the pension system and government budgets. The problem with the lower level of education of the labor force in general is largely related to the strong ethnicization of part of the rural municipalities, as well as to the highly outdated age structure in other cases.

In conclusion, it can be summarized that the attraction and retention of young able-bodied people are extremely complicated, therefore complex approaches, methods and specific means must be applied to their successful solution. Lack of connectivity, underdeveloped infrastructure, lack of diverse employment opportunities and limited access to services make rural areas less attractive to live and work. Therefore, to successfully solve the problems related to the attraction and retention of a young labor force, there must be changes in the overall demographic and social policy of the state, aimed at creating incentives for high birth rates and full upbringing of children.

Active policy aimed at integrating young people into education and training into the labor market is necessary as a priority. Also, in terms of business support, it is necessary to carry out initiatives and activities aimed at ensuring employment and the

possibility of increasing the qualification and retraining of young people to retain them in rural municipalities. To retain a quality labor force in rural areas, it is necessary to find ways to improve the quality of life in rural areas and stimulate economic growth to achieve balanced territorial development.

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