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***DETERMINANTS OF YOUNG PEOPLE IN AGRICULTURE - THE EXPERIENCE OF THE EU AND SERBIA***

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***ABSTRACT***

*This article examines the characteristics of young people in the agriculture sector in Serbia and EU countries. The paper analyzes the age structure of agricultural holdings, gender representation in terms of the ownership structure and management of the agricultural household, level of education and motivation to stay in the countryside. In the desire to encourage and motivate the engagement of an increasing number of employment in the agricultural sector, with a special focus on young people, the paper highlights the defined goals of aid by the European Commission with a detailed plan and financial resources allocated to support young farmers in the EU. The paper suggests that insufficient employment of young people in the agricultural sector in Serbia can be improved by creating a more effective work policy and financial support for young people.*

**Key words:** *youth in the agricultural, employment prospects, agriculture sector, Serbia and EU countries.*

**JEL Classification:** *L26, Q12, J43.*

***INTRODUCTION***

Agriculture is one of the most important industries in almost every economy worldwide, but still, even with the economic development and the progress of countries, the share of the population working in agriculture has been declining (Tošović-Stevanović et al., 2022). When we add the results and analysis of socioeconomic factors, starting with the age structure of the population working in agriculture, the first thing that stands out is the depopulation of villages and agricultural households all over the world. According to the analysis of Kočović et al. (2016) in Serbia, more than a third (34.6%) of owners of farms are over 65 years old, while only 4.6% of owners are under 35 years old, among the managers of farms, who in 94% of cases are also their owners. even 60% have no formal education. These data are very worrying because farmers with good education possess improved decision-making skills and hence better manage resources to exploit farms of various sizes (Asadullah & Rahman, 2009).

According to the research *Gender equality, agriculture and rural development*, conducted by the Food and Agriculture Organization of the United Nations (FAO, 2022), the number of inhabitants in Serbia is continuously decreasing due to the drop in the birth rate and constant migration of the population, especially young people, as well as qualified and educational categories of the population, and decreasing trends are particularly visible in the countryside and rural areas. Trends in the reduction and aging of the population in rural areas are more pronounced in the female rural population, which indicates a greater degree of their emigration from the countryside compared to men. And only some of the reasons cited are related to property status, lower chances for employment, but also various contents of importance for the quality of life, which young people, especially women, want for themselves and their families.

The situation described for Serbia is not a unique case, it is very similar in other European cities. For that reason, according to FAO (2023) six main challenges have been identified which negatively affect the

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employment prospects of the rural youth in the agricultural sector: 1) insufficient access to knowledge, information and education which limits their productivity and the acquisition of skills, 2) limited access to land, 3) limited access to financial services, 4) limited access to green jobs, 5) limited access to markets, 6) limited inclusion in social and policy dialogue. Supporting the next generation of European farmers not only enhances the future competitiveness of EU agriculture; it also helps guarantee Europe's food supplies for years to come (European Commission, 2023).

In order to see more precisely the socio-economic characteristics of the population employed on agricultural farms, especially young people, we will give a brief overview of key factors in Serbia and the EU, important for the survival and economic development of agricultural farms.

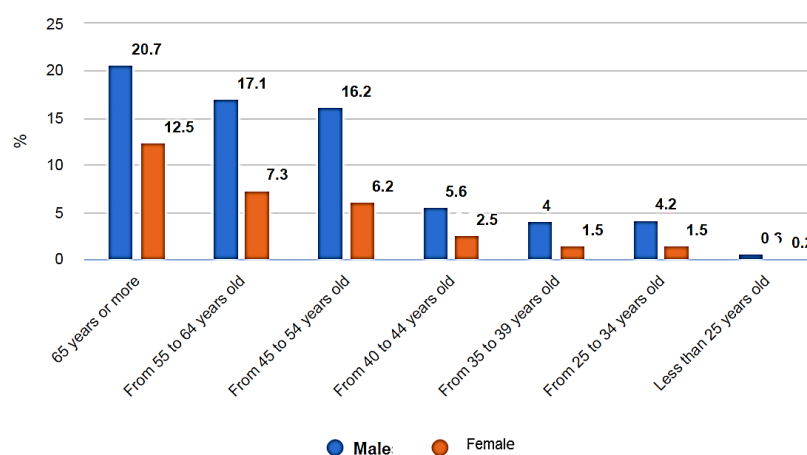
### ***YOUNG PEOPLE IN AGRICULTURE SECTOR IN EU***

While the world's youth population is expected to grow, employment and entrepreneurial opportunities for youth – particularly those living in economically stagnant rural areas of developing countries – remain limited, poorly remunerated and of poor quality (FAO, 2023). According to Matthews, the entire fall in the share of younger workers in agriculture can be explained by general social phenomena affecting all workers without some unique problems specific to agriculture (Tošović et al., 2022).

The definition of a "young farmer": 1) is an active farmer, 2) is under 41 years of age and 3) has the required level of agricultural education (EIP Agri Focus group 2016).

According to the analysis carried out by the European Commission (2023) in the EU, which refers to the age structure of the owners or those who manage agricultural holdings, in the EU, farmers under 40 years of age are at the head of only 11% of all agricultural holdings. Difficulty accessing land and finance are consistently identified as the biggest barriers to young farmers and to new entrants to farming (Sutherland, 2023; CEJA 2019; EIP Agri Focus group 2016).

Analyzing the situation of the number of young farmers engaged in agriculture in the EU, we can notice that according to the EU Agriculture in numbers survey conducted by the European Commission (2020), on graph 1, the exact number of young farmers in the EU, analyzing the difference in relation to the gender equality of farmers.



*Graph 1. Age classes of farm managers, by gender (% of all farm managers, EU, 2020).*

*Source: European Commission, 2023.*

If we know that small family farms related to the rural areas are places of residence and work for nearly 50% of the world's population (Borychowski et al., 2020) it is necessary to involve youth people. In the desire to encourage and motivate the engagement of an increasing number of workforce in the agricultural sector, with special reference to the youth, according to the European Commission (2023),



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common agricultural policy (CAP) in the period from 2023 to 2027, is built around ten key objectives, which are basis upon which EU countries designed their CAP Strategic Plans.

The main objectives are (European Commission, 2023):

1. to ensure a fair income for farmers;
2. to increase competitiveness;
3. to improve the position of farmers in the food chain;
4. climate change action;
5. environmental care;
6. to preserve landscapes and biodiversity;
7. to support generational renewal;
8. vibrant rural areas;
9. to protect food and health quality;
10. fostering knowledge and innovation.

In accordance with the stated support goals, financial support is planned for 380,000 young farmers, who will establish agricultural farms in the period from 2023-2027. of which it is planned that the largest number of funds will be allocated to Italy (21.2%), Greece (17.9%) and Poland (13.7%), and the least to Malta (0.1%) and Slovakia (0.3%), while Luxembourg will not have any support.

Agricultural subsidy programs are expected to have a positive impact on agricultural employment because they increase agricultural incomes (Garrone et. al., 2018). But, given that the pandemic crisis has contributed to additional difficult conditions for the work and employment of young people, in addition to planning and financial support, it is very important to look at the wishes and needs of young people to stay in the countryside and engage in agriculture, so that all the efforts made have a long-term results. These reasons will be analyzed on the example of Serbia, through the presentation of the situation of employed youth in the agricultural sector in Serbia.

### ***YOUNG PEOPLE IN AGRICULTURE SECTOR IN SERBIA***

Serbia has a favourable factor and trade conditions for the development of intensive and competitive agriculture (Tošović-Stevanović et al., 2020). In the report of the Ministry of Agriculture, Forestry and Water Management, on the state of agriculture in the Republic of Serbia from 2022, entitled *Green Book - Book I*, the economic results in the agricultural sector are shown, which indicate the gradual recovery of the agricultural sector in Serbia, after the pandemic crisis, but there are still changes and disturbances in the market as a result of the Russian-Ukrainian conflict. The report noted that in 2022, 547.000 employees were recorded in the agriculture and food industry sector (+2% on an annual basis), of which 78.7% were employed in the field of primary agriculture, which indicates a slight growth in the last three years (Ministry of Agriculture, Forestry and Water Management, 2022). According to the same report, it is stated that in 2022, the number of employees in agriculture and the food industry accounted for 18.8% of the total number of employees in Serbia. Regarding the number of employees, the situation is almost identical to the one in 2021, but salaries in 2022 have increased on average by about 5.5 - 12.8%, depending on the production of different products.

The Statistical Office of the Republic of Serbia (2019) conducted a *Survey of Structure, economic strength and marketing of farm products* for 2018, where, according to the basic characteristics of agricultural holdings and available resources, the number of agricultural holdings, information technology equipment, age of the holding of the agricultural holding, education are analyzed manager and type of production. Based on this analysis, the number of 564.541 agricultural farms is singled out (the highest in the Šumadija Region and Western Serbia - 43%, and the lowest in the Belgrade Region - 5%), of which 11.149 agricultural farms use a computer, which represents the low information literacy of farmers, which is primarily a consequence of the unfavorable age structure. In 80% of the holders of agricultural holdings

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are men, and 20% are women, and of that number, 49% acquired knowledge in agriculture through practice and experience gained by working in agriculture, and not through school and education. And a large number (as much as 42%) have completed high school that is not agriculturally oriented and they are engaged in agriculture because they could not get a job in their profession, which means that working in agriculture was not a life commitment for them, but a necessity. According to the same survey, only 3% of the holders of agricultural holdings have completed secondary agricultural school, and only 1% of them have completed higher school or faculty in agriculture. While only 0.24% attended any other type of training and practice. Table 1. shows the numerically gender structure, average age and level of training of agricultural holding managers according to the method and volume of product sales, in total and by region (Statistical Office of the Republic of Serbia, 2019).

*Table 1. Gender structure, average age and level of training of agricultural holding managers.*

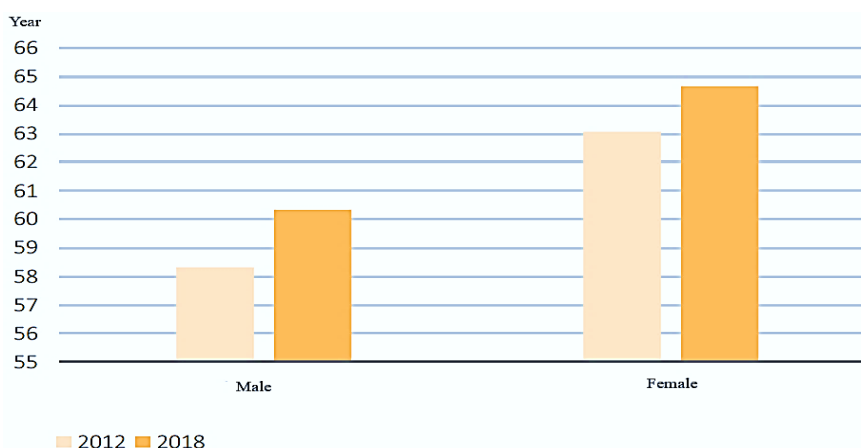
	Republic of Serbia	Region of Belgrade	Region of Vojvodina	Region of Šumadija and Eastern Serbia	The region of Southern and Eastern Serbia	Region of Kosovo and Metohija
Agricultural holding that sell their own products						
Male	352.018	18.140	87.822	161.107	84.948	-
Female	80.657	3.1244	21.396	34.231	21.907	-
Average age of holder of agricultural holding:						
Male	60	60	57	60	61	-
Female	64	63	60	66	64	-
Only experience gained through practice	204.450	6.782	42.746	104.133	50.789	-
Completed courses in the field of agriculture	1.231	59	581	394	197	-
Completed high school from the area of agriculture	15.991	513	8.464	4.402	2.612	-
Completed second high school	184.413	12.361	48.761	76.751	46.540	-

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Completed higher school or faculty from the field of agriculture	5.675	320	2.296	1.826	1.232	-
Completed second higher education or other college	20.915	1.229	6.638	7.833	5.485	-

Source: Statistical Office of the Republic of Serbia, 2019.

The research also conducted by the Statistical Office of the Republic of Serbia in 2019, entitled *Survey on the structure of agricultural holdings, 2018: What it confirms, what it refutes and what it points to*, also analyzes data on members of the holdings and on permanently employed persons older than 15 years, with a note that due to the age structure, the most realistic data can be viewed on the managers of the estate, that is, on the persons who make all the decisions. According to the results of this research, the data on the level of training of farmers are confirmed, where the dominant percentage is represented by "practical experience" (49%), but also with completed high school (45%), and here it is not only the percentage of farmers with graduated from an agricultural secondary school, but any secondary school. What also stands out is the percentage of women who run agricultural farms, which, as expected, is much lower than men and amounts to 15% at the level of the whole of Serbia. And when we add to that a comparative view of the average age of the heads of agricultural holdings in both 2012 and 2018 (looking at the data for both sexes), we can once again confirm that the number of young people who stay in the countryside and who decide to work and continuing to manage the agricultural economy (graph 2.).



Graph 2. Comparative presentation of the average age of agricultural holdings in 2012 and 2018.

Source: Statistical Office of the Republic of Serbia, 2019.

According to Statistical Office of the Republic of Serbia (2019), as far as the age structure is concerned, 42.5% of farmers are over 65 years old, 27.9% of them are 55 to 64 years old, 17.8% of farmers are 45-54 years old, and 8 of them .7% are between 35 and 44 years old. Only 3.1% of the total number of farmers are under the age of 35. The largest number of holders of agricultural holdings under the age of 40 is in the region of Šumadija and western Serbia - 8,730.

With the mentioned results from the research carried out by the Statistical Office of the Republic of Serbia, we can for the sake of comparative analysis show the results carried out in 2019 on the example of 550 small farms in the territory of Serbia as part of the international project called *The role of small farms in the sustainable development of agrifood sector in the countries of Central and Eastern Europe*. In the framework of the questionnaire, which consisted of four groups of factors that analyzed issues from the



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areas of: 1) environment. 2) socio-economic position, 3) relationship between agricultural activity, market and risk management and 4) food safety and nutritional quality, we will separate the results from the second group, which are mostly related to specific issues of work. According to those results, out of 550 farmers, 15.64% are women, and even 84.36% are men. In terms of education, of this number, 17.64% have elementary school, 30.36% have high school, 36% have high school, 3.45% have college or university, and 0.91% have a master's degree. Of the 550 farms analyzed, 30% of farmers who manage agricultural farms work outside the farm, the average age is about 55 years old, and as for the structure of household income, of the 550 farms in Serbia, income from agriculture (including subsidies and other forms of financial support to agriculture) are 64.64%.

All the above data, obtained from various reports, speak of a worrying situation regarding the employability of young people on agricultural farms, because the percentage of young people who are interested and motivated to stay and improve their agricultural farms is decreasing year by year. The data expected with the new census of agriculture at the end of 2023 will take into account the situation and the consequences that the pandemic crisis has left on this sector, so only after that we will be able to fully see the directions for a new approach to the strategy and improvement of employment in this extremely important economic segment and greater motivation of young people to build their safe and successful future and career within it.

## CONCLUSIONS

Analyzing the situation of youth employment in the agricultural sector in Serbia and the EU, a common fact is observed, which is the necessity of adequate motivation and provision of resources, which will provide young people with better conditions for life and work and improvement of business within agricultural households.

After the pandemic crisis, for most countries, one of the main priorities was the creation of new jobs, and since young people are a particularly sensitive group, additional efforts were directed towards them. As in the midst of the pandemic crisis, access to arable land and rural life has increased significantly, many believe that it is now necessary to work on this and try to do so with the support of the Government and subsidies, to further empower young people to stay on the farm, because their disinterest, for the most part, comes from due to financial insecurity and difficult working conditions. The lack of interest and trends of reduction, but also the aging of the population in rural and rural areas in Serbia and throughout Europe, lead the Governments of these countries to the necessary intervention defined through grants for starting a business, financial support and subsidies, additional training for young farmers, all with the aim of retaining young people in the countryside and to successfully run agricultural households.

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