

ANALYSIS AND EVALUATION OF THE RURAL LABOUR MARKET AND EMPLOYMENT OF THE RURAL POPULATION: A CASE STUDY OF VOLYN REGION, UKRAINE

Mykola DZIAMULYCH^{1*}, Valentyna YAKUBIV², Iryna SHUBALA^{1*}, Dmytro FILIUK³, Liudmyla KOROBCHUK^{1**}

¹Lutsk National Technical University, *Department of Economics, **Department of Ecology and Agronomy, 75 Lvivska str., 43018, Lutsk, Volyn region, Ukraine. Emails: m.dziamulych@lntu.edu.ua, shubala83@gmail.com, luda.iv13a@gmail.com

²Vasyl Stefanyk Precarpathian National University, Department of Management and Business Administration, 57, Shevchenko Str, 76018, Ivano-Frankivsk, Ivano-Frankivsk region, Ukraine. Email: yakubiv.valentyna@gmail.com

³Lesya Ukrainka Eastern European National University, Faculty of Economics and Management, 28 Vynnychenko Street, Building 7 (G), 43025, Lutsk, Volyn region, Ukraine. Email: filiuk.dmytro08@ukr.net

Corresponding author: filiuk.dmytro08@ukr.net

Abstract

An evaluation of the rural labour market development in terms of districts of Volyn region of Ukraine was conducted, identified and characterized trends in the rural population employment through the State Employment Service of Ukraine, the rural population unemployment scale in the study region of Ukraine and identify key areas for optimizing the labour market. forces taking into account the revealed tendencies. In order to highlight the local rural labour markets features and further development of individualized recommendations, the detailed assessment of them in terms of districts of Volyn region of Ukraine, in particular, based on the results of the registered rural labour market study developed a map to visualize the relevant regional groups. It is established that family-labour farms, functioning in the form of peasant farms, in the current economic situation provide the necessary conditions for the institutional foundation's formation for private management in rural areas of Ukraine. The necessity of forming preconditions for strengthening the effectiveness of employment policy in rural areas of Ukraine is substantiated. The article outlines proposals for improving and optimizing the functioning of the rural labour market. Based on the results of research and trends in the work, the need to develop measures to intensify the activities of advisory services and specialized staffing agencies to take into account the specifics of the rural labour market rationalization and the peculiarities of rural employment in the economic realities of Ukraine.

Key words: registered unemployment rate, rural labor market, employment, rural population, cartogram

INTRODUCTION

The deep crisis of the agricultural sector of the economy, the destruction of the rural social infrastructure, the negative demographic trends characterized by aging, and the extinction of the rural population necessitate a systematic analysis and identification of ways to effectively regulate the rural labour market. At the present stage of economic development, the importance and relevance of these issues are difficult to overestimate. Certain aspects of the labour market functioning in today's realities are the subject of research by many scholars studying the economics of labour and social relations,

among them: D. Bohynia [3], A. Boiar [4], O. Grishnova [9], M. Dolishnii [5], E. Libanova [11], V. Lyshylenko [12], G. Kupalova [10], V. Onykienko [13], T. Petrova [14], A. Popescu [15-24], T. Shmatkovska [7, 26, 28], V. Yakubiv [29-31], Ya. Yanyshyn [32], I. Zhurakovska [34] and many others. However, due to the complexity and multifaceted nature of the formation of an optimal and efficient labour market in rural areas, it is necessary to deepen and expand the scientific study of the features of rural employment in the regional context.

The purpose of the article is to assess the rural labour market development in terms of districts of Volyn region of Ukraine, identify

trends in the employment of the rural population through the State Employment Service of Ukraine, the scale of long-term unemployment in rural areas of Ukraine and identify key areas for optimizing labour market, rural labour force, taking into account the identified trends.

MATERIALS AND METHODS

The data used for conducting analytical research in the work were obtained from the official materials of the Main Department of Statistics in Volyn Oblast, the State Statistical Service of Ukraine and the Volyn Regional Employment Centre.

The dynamics of a set of indicators characterizing the formation of the labour market for the rural population of Ukraine are studied in the work. The analysis of the system of corresponding indicators in dynamics is given.

The registered unemployment rate is the ratio (as a percentage) of the number of unemployed registered with the State Employment Service of Ukraine to the average annual working-age population. In order to make comparisons with the data of the sample survey, the calculation of the average number of registered unemployed for the period (I quarter, I half-year, 9 months, year). The corresponding unemployment rate is determined in relation to the economically active population of working age for the relevant period.

Registered unemployed under the current legislation of Ukraine are citizens of working age who due to lack of work have no earnings or other income provided by law, registered with the State Employment Service of Ukraine as job seekers, ready and able to start suitable work. Disabled people who have not reached retirement age, do not work, and are registered as job seekers are also recognized as unemployed.

Quantitative and qualitative characteristics of this category of unemployed, as well as information on the need for workers, employment of the unemployed, etc., prepared on the basis of administrative data of the State

Employment Service of Ukraine in the Volyn region.

The level of employment is determined according to the administrative data of the State Employment Service of Ukraine as the ratio (as a percentage) of the number of employed persons to the number of unemployed who were registered with the State Employment Service of Ukraine during a certain period.

The rural population, desperate to find work, was unemployed, ready to start work, but stopped looking for work during the last month because they could not find it for a long time and had exhausted all possibilities for obtaining it.

The level of registered unemployment in terms of district labour markets in this study was analysed on the basis of a system of "traditional" statistical indicators, one of which is the "average standard" (Δx_i) [33], which is the value of the deviation of the indicator that characterizes the studied feature (x_i), from the average for this feature (\bar{x}) in the form of the difference:

$$\Delta x_i = x_i - \bar{x},$$

where:

x_i – the magnitude of the indicator deviation that characterizes the studied feature;

\bar{x} – the average value of the indicator on this basis.

RESULTS AND DISCUSSIONS

One of the dominant-negative social consequences of unemployment, especially its long-term form, is professional disqualification, which causes a decrease in competitive opportunities and causes a decline in the labour force quality in rural areas. Therefore, one of the most important tools for the formation of sound and successful socio-economic policy should be considered constant monitoring of the labour market, the basic task of which is to prevent and identify negative trends in its development.

One of the necessary conditions for effective coordination of employment is the assessment

of current trends in its regional development. Thus, analysing the dynamics of balancing the unemployed in the rural labour market of the Volyn region of Ukraine with the assistance of the state employment service, we can say about the annual increase in the number of registered unemployed, only in 2019 revealed a partial improvement of the negative trend. According to the results of our labour market monitoring based on the assessment of the level of registered unemployment of the rural population in the Volyn region of Ukraine, a set of systemic trends was identified. In particular, in 2016-2018, a clear trend to reduce the level of registered unemployment in rural areas can be observed in Kivertsi (3.6% - in 2018 compared to 5.4% - in 2016), Rozhysche (4.9% - in 2018 compared to 6.1% - in 2016) and 2.1 times in Volodymyr-Volynkyi districts (4.8% - in 2018 compared to 10% - in 2016) of Volyn region of Ukraine.

However, the decrease in the registered unemployment rate is not always an indication of an improvement in the labour market situation. There is no reason to believe that in some districts of Volyn region this situation is due to the inefficient functioning of state employment services in rural areas, which encourages the unemployed rural population not to register at employment centres at all, in particular, due to low unemployment benefits. According to the results of our study, the negative trends in increasing the number of registered unemployed in Ratnivskyi (from 4.3% in 2016 to 7.4% in 2018) and Turiyskyi districts of the Volyn region, where the unemployment rate increased by 0.8%, are quite obvious. Although in Kamin-Kashyrskyi and Lyubeshivskyi districts of the Volyn region this indicator remains at a rather low level, in the studied period it also deteriorated by 0.6% and 0.4%, respectively (Fig. 1).

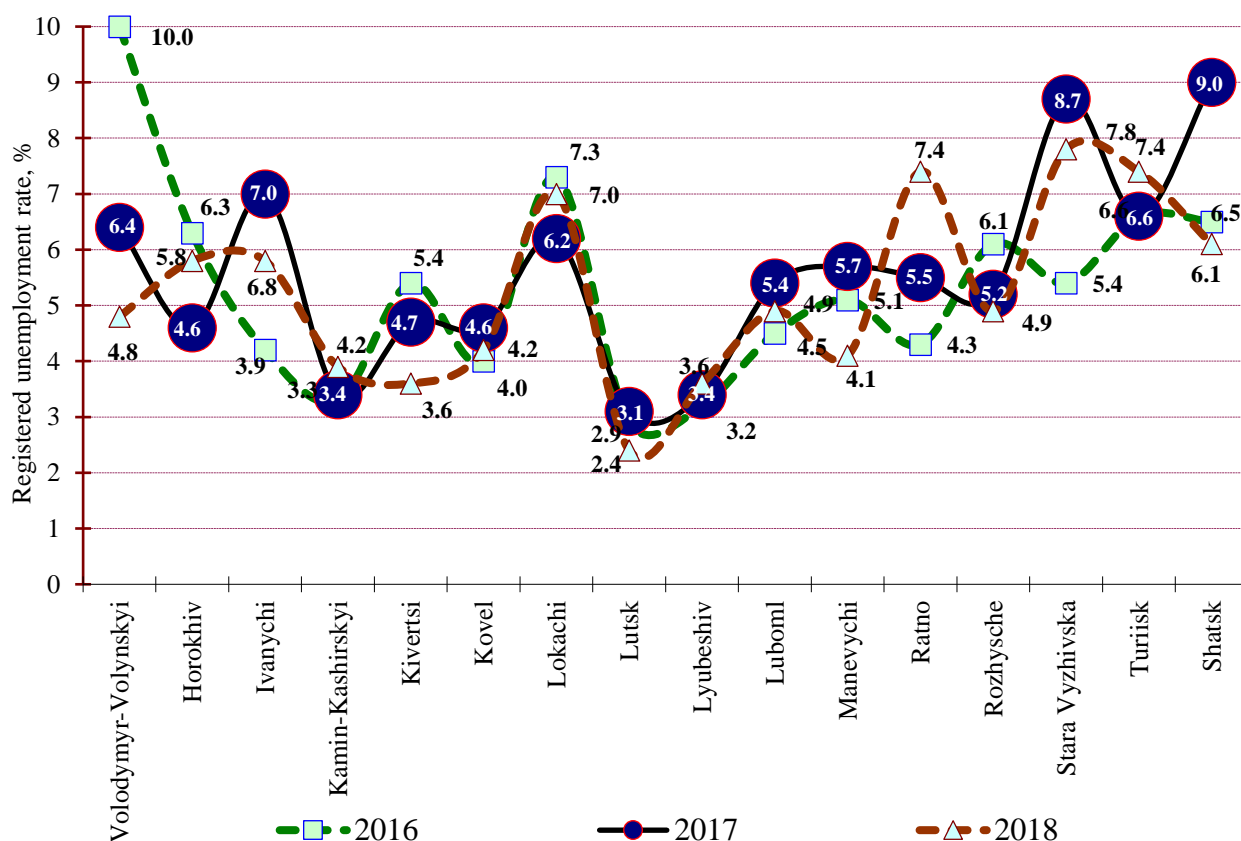


Fig. 1. Dynamics of the registered unemployment level of the rural population by districts of Volyn region of Ukraine, 2016 – 2018

Source: Own research and calculations based on the data from: [1, 2, 27].

Note that the number of rural populations employed with the assistance of the State

Employment Service in Volyn region is growing every year. However, the growth of

employment through the employment centre of the studied region has not become systematic and optimal for the Volyn region of Ukraine, which requires the development of a set of relevant proposals and recommendations to improve the situation. In order to highlight the features of the development of local rural labour markets and further development of individualized recommendations, we conducted a detailed assessment of them in terms of districts of the Volyn region of Ukraine. Thus, according to the results of the study of the registered rural

labour market of Volyn region to assess the level of employment, we identified conditional regional groups (Fig. 2), of which: 1st - covers areas of Volyn region, where employment (compared to the regional average) is stable high but does not increase significantly in dynamics. These are the Volodymyr-Volynskyi district of the Volyn region of Ukraine, where the level of employment in 2015 – 2019 increased by 2.3 percentage points (p.p.) and amounted to 28.4% and Kovel district - by 5.9 percentage points and amounted to 32.2%.

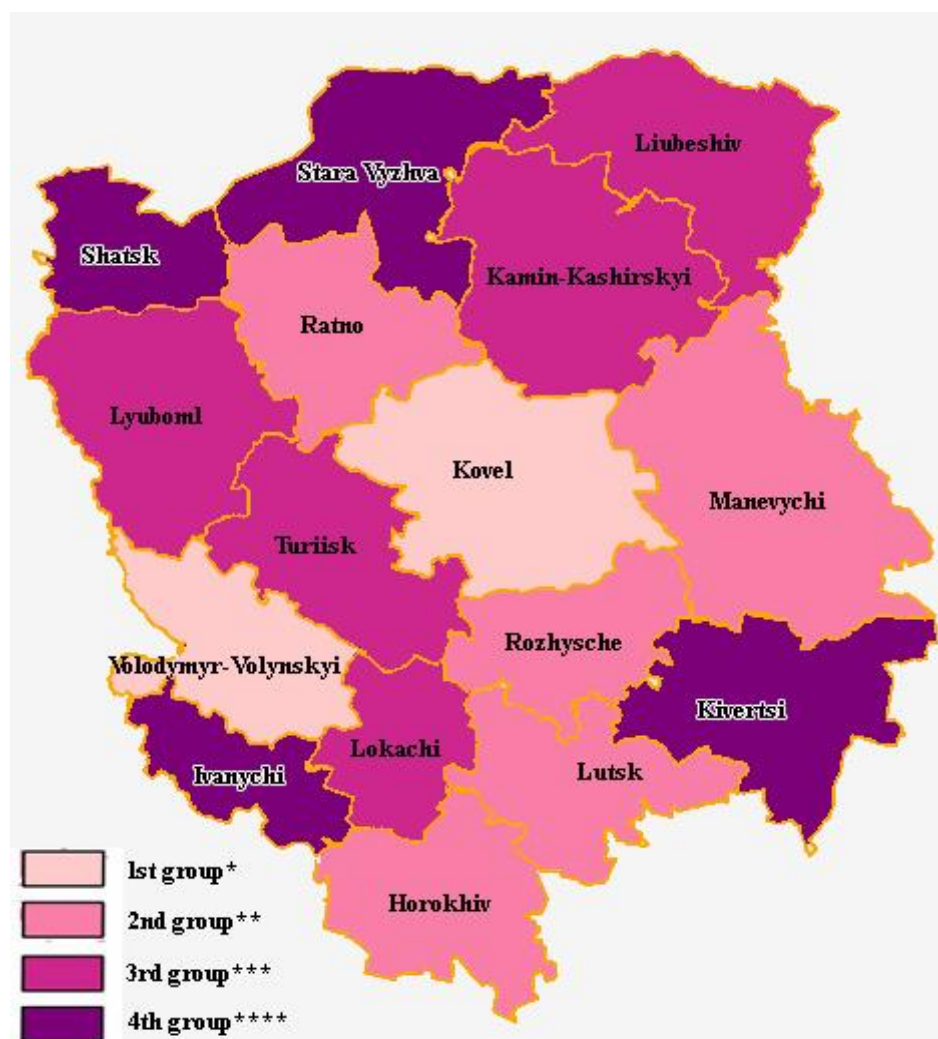


Fig. 2. Map of the districts of the Volyn region of Ukraine grouping to assess the employment trends of the rural population with the assistance of the State Employment Service for 2015 – 2019

Source: Own research.

*1st group – covers areas where the employment rate (compared to the regional average) is consistently high, but the dynamics do not increase significantly;

**2nd group – covers areas with a significant increase in the level of employment of the rural population in 2015-2019, as a result of which this indicator from medium or low is close to high (compared to the regional average);

***3rd group – includes areas in which during the study period there is also an increase in the level of employment of the rural population, but in an amount insufficient to exceed the regional average;

****4th group – covers the areas of the study area with a slight increase or decrease in the level of employment in the registered rural labour market during 2015-2019.

The 2nd group covers the districts of the Volyn region of Ukraine with a significant increase in the level of employment of the rural population in 2015 – 2019, as a result of which this indicator from medium or low is close to high (compared to its regional average). In particular, these are: Horokhiv district, where the level of employment increased by 15.2 percentage points or 2.2 times; Lutsk district – 1.5 times; Rozhysche district - by 33.4 percentage points or 14.4 times and reached the maximum in the Volyn region in 2019. value - 35.9%. This group also included the Manevychi district, where the level of employment in the study period increased 1.5 times and Stara Vyzhva district of the Volyn region of Ukraine, where the level of employment increased 1.7 times.

Note that the first two groups are characterized by a clear positive trend in establishing a relative balance of supply and demand in the rural labour market, in which the employment rate of the unemployed rural population with the assistance of the state employment service exceeds the regional average.

The third group includes areas in which during the study period there is also an increase in the level of employment of the rural population, but to an extent insufficient to exceed the regional average value of this indicator. This group includes Kamin-Kashyrsk district, where the level of employment increased 1.7 times and amounted to 2019. 20.4%; Lokachi district - 1.7 times and amounted to 18.7%; Liubeshiv district - 1.5 times; Lyuboml district - 1.8 times and Turiisk district - 1.6 times. Group IV covers areas with a slight increase or decrease in the level of employment in the registered rural labour market in 2015 – 2019. According to the results of the study, this includes Ratno district, where the employment rate decreased by 8.5 percentage points; Shatsk district, where the level of employment increased by only 2.5 percentage points and amounted to 2019. 21.3%, as well as Kivertsi and Ivanychi districts. It should be concluded that this group is characterized by the worst dynamics of employment of the rural population in the period under study, which, in our opinion, is due to a significant

imbalance of labour supply and demand in rural labour markets in selected areas of the Volyn region of Ukraine.

Since employment opportunities with the assistance of relevant government agencies are quite problematic (and in some areas - especially, Fig. 2), we believe that it is peasant farms in the form of family self-organization of agriculture, based on personal labour - take the place of compensation for rural employment people.

According to the results of assessing the dynamics of employment in the areas of employment in terms of the size of rural settlements in the Volyn region of Ukraine, we found clear trends and interdependencies, namely: in 2014 – 2018 the share of agricultural employment decreased rapidly in small villages to 199 people - by 32.1 percentage points and a population of 200-499 people - by 25.6 percentage points.

As a result of the outlined transformations in the Volyn region of Ukraine, we found that the largest number of employed rural residents in agricultural enterprises at the beginning of 2018 there were in the villages with a population of 200-499 people - 15.3%, and in the villages with a population of 500-999 people - 14.2% of the total employed rural population. In addition, the share of workers in peasant farms continued to grow significantly in all villages, regardless of their population and population, in particular in 2014-2018 - it increased by 12.9 percentage points. The most significant share of workers in farms is the population of up to 199 people (56.6%), as the scope of employment there is quite limited, in most of them (namely, 72.3% of the total) there are no what facilities.

In our opinion, the small number of people employed in agricultural production in large villages with a population of over 1,000 people and the internal motivation to work on the land causes a high share of those engaged in personal farms and in rural settlements with a relatively high rural population.

Thus, it can be argued that family-labour farms, functioning in the form of peasant farms, in today's realities provide the necessary conditions for the formation of the institutional foundations of private management in rural areas of Ukraine.

According to the analysis results of the dynamics of the registered unemployment level of the rural population in the districts of the Volyn region of Ukraine, it is quite difficult to identify a general trend that would be characteristic of the region as a whole. Therefore, we assessed the level of registered unemployment in terms of district labour markets of the studied region of Ukraine on the basis of a system of «traditional» statistical indicators, one of which is the average standard (Δx_i).

Analyzing the results of the study, it should be noted that in a quarter of districts of the Volyn region of Ukraine during 2016 – 2018 the values of the studied indicators are lower than the regional average by 1.0-2.8% (Table 1). Regarding the comparison with the all-Ukrainian indicators, in 2016-2018 only in the Lutsk district of the Volyn region and in 2016-2017 – in Liubeshiv and Kamin-

Kashyrsk districts the registered unemployment rate among the rural population is lower than in Ukraine as a whole. This indicates a better situation in the rural labour markets of these districts compared to the average in the region and nationwide.

The tendency towards deterioration in relation to the average and national values in the studied period was characteristic of Lokachi, Turiisk, and especially Stara Vyzhva, Shatsk districts, which can be attributed to the areas with a problematic situation in the rural labour market. In addition, using the indicator of the average linear deviation, we note that on average in 2016 – 2018. the level of registered unemployment deviates by 1.38, 1.31 and 1.34%, respectively, from the average level of this indicator for the rural population in the study period.

Table 1. Average standards of the registered unemployment level of the rural population by districts of the Volyn region of Ukraine in 2016 – 2018

Regions districts	According to the average value			According to the value of Ukraine as a whole		
	2016	2017	2018	2016	2017	2018
Volodymyr-Volynskiy	4.7	0.8	-0.4	6.5	2.9	1.7
Horokhiv	1.0	-1.0	0.6	2.8	1.1	2.7
Ivanychi	-1.1	1.4	0.6	0.7	3.5	2.7
Kamin-Kashirskiy	-2.0	-2.2	-1.3	-0.2	-0.1	0.8
Kivertsi	0.1	-0.9	-1.6	1.9	1.2	0.5
Kovel	-1.3	-1.0	-1.0	0.5	1.1	1.1
Lokachi	2.0	0.6	1.8	3.8	2.7	3.9
Lutsk	-2.4	-2.5	-2.8	-0.6	-0.4	-0.7
Liubeshiv	-2.1	-2.2	-1.6	-0.3	-0.1	0.5
Lyuboml	-0.8	-0.2	-0.3	1.0	1.9	1.8
Manevychi	-0.2	0.1	-1.1	1.6	2.2	1.0
Ratno	-1.0	-0.1	2.2	0.8	2.0	4.3
Rozhysche	0.8	-0.4	-0.3	2.6	1.7	1.8
Stara Vyzhva	0.1	3.1	2.6	1.9	5.2	4.7
Turiisk	1.3	1.0	2.2	3.1	3.1	4.3
Shatsk	1.2	3.4	0.9	3.0	5.5	3.0

Source: Own calculations based on the data from: [1, 2].

Determining the economic essence of unemployment of the rural population in the system of labour use allows to identify certain categories of unemployment by its duration, namely: from 1 to 3 months - short-term; from 3 to 6 months - medium-term; from 6 months to 1 year - long-term; more than 1 year - chronic (stagnant) unemployment [1, 2, 6, 8]. In the outlined classification, long-term

unemployment deserves special attention, which, in our opinion, covers the last two categories. After more than nine months of searching for a job, the activity of such a search decreases significantly, in particular, the desire to work for employment in the field of formal employment decreases. This phenomenon is associated not only with disbelief in the possibility of employment but

also with the habit of free disposal of their own time, formed during the period of unemployment. Therefore, the need to employ people who do not work or are looking for work for more than six months has become particularly acute and relevant.

Regarding the analysis of the share of the unemployed rural population in the Volyn region who have been looking for work for more than 6 months, it should be noted that in 2018. Compared to the previous year, it decreased by 28.9% or 11.6 thousand people and amounted to 32.6% (or 6.0 thousand people) of the total registered unemployed rural population looking for work. However, the average duration of a job search in 2018. Although it decreased by 3 months compared to 2017, it still remains quite high - 5 months, which, in our opinion, is an unacceptably long period.

We will take into account that the newly formed category of the rural population during the years of market transformations is desperate to find a job, although it is slowly but steadily replenishing its ranks; in 2017, among the rural population there were 195 thousand people. Their share in the number of the unemployed able-bodied rural population is 11% [25]. Desperate are people who did not have a job, and ready to start it, but during the last month stopped looking for a job because they could not find it for a long time and exhausted all opportunities to get it.

The growth of desperate people is quite large-scale, in particular in 2017 in the Volyn region of Ukraine the share of such persons in the economically inactive population in rural areas was 3.0% (3.4 thousand people), and in the city - 0.8% (1.3 thousand people). Thus, of the total number of the desperate rural population, persons who previously had a job amounted to 1.5 thousand people or 44.1%, of which the duration of unemployment 67.5% - did not work for more than three years, 26.3% - from one to three years, and only 6.2% - up to one year, which causes the loss of accumulated professional skills, knowledge and skills, and as a result - a significant «moral devaluation» of previously accumulated human capital of the rural population. Moreover, compared to the previous year in 2018, the number of unemployed people who stopped looking for

work because they lost hope of finding it, in rural areas decreased by 0.3 thousand and amounted to 2.8% of the economically inactive population, and in the city - increased by 1.2 thousand people and was respectively 1.5% of the economically inactive. We believe that the decrease in the rural population of this category is due to a much greater increase in labour migration abroad, as an alternative to employment in the face of inability to find work at home, than the introduction of effective employment measures by government agencies at the appropriate level and direction. In particular, it is necessary to increase the efficiency of the State Employment Service, the main functional purpose of which is to implement a set of measures aimed at optimizing employment, including those living in rural settlements.

In addition, one of the reasons for this situation can be considered a significant problem of young professionals' employment after graduation from institutions with different accreditation levels due to lack of practical experience. For example, as noted by O. A. Grishnova, «today almost half of young people under the age of 28 do not work in the acquired specialty, and about a third of those who have full and basic higher education work on positions that do not require such a level of education» [9]. In particular, in the Volyn region of Ukraine, 23.8 % of the rural economically inactive population, which has despaired of work search, are dissatisfied after graduation.

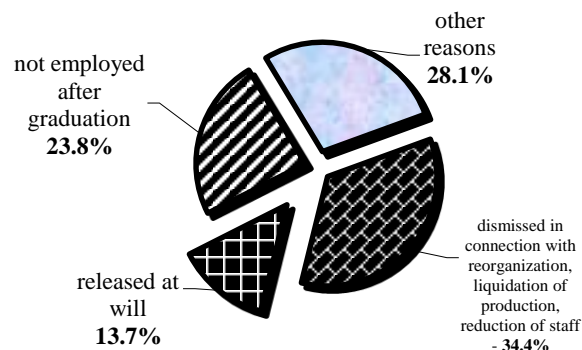


Fig. 3. The structure of the desperate in work search by the rural population of the Volyn region of Ukraine for reasons of unemployment, 2018.

Source: Own resource based on the data from: [2, 27].

Among other causes of unemployment, the share of which in the total is the largest, are dismissal due to reorganization, liquidation of production and reduction of staff – 34.4% of desperate or 1.1 thousand people; voluntary dismissal – 13.7% of desperate people (Fig. 3).

Based on the research results and identified trends, we consider it appropriate to develop measures to intensify the advisory services activities and specialized staffing agencies to take into account the rural labour market rationalization specifics and rural employment features in the economic realities of Ukraine (Fig. 4).

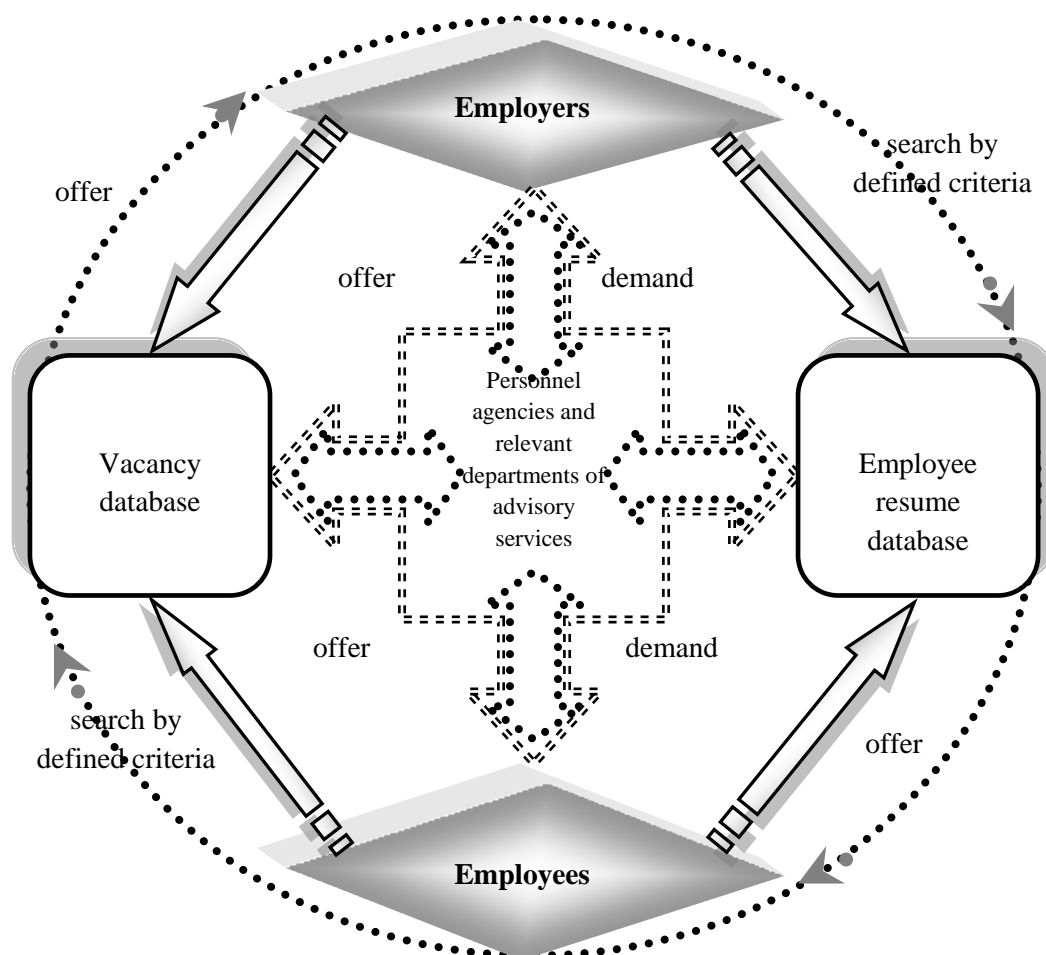


Fig. 4. Visualization scheme for rural labour force balancing in the rural labour market of Ukraine with the assistance of staffing agencies and advisory services
 Source: Own research.

CONCLUSIONS

Thus, the identified trends and changes should be the basis for improving the efficiency and validity of employment programs priority areas at the regional and national levels, improving mechanisms for regulating supply and demand in rural labour markets to minimize socio-economic tensions of the rural population.

We believe that the increase in employment and, accordingly, the growth of the income level of the rural population will be facilitated

by the development and implementation of an effective mechanism for motivating work; restoration and development of social infrastructure facilities in rural settlements as one of the alternative ways of employment; legalization of informal employment in order to prevent the possible participation of certain categories of unemployed in this illegal segment; establishing in-depth, active and multi-vector cooperation with staffing agencies and relevant sub-components of advisory services, as with effective

participants in the rural labour market in rural settlements of Ukraine.

REFERENCES

- [1]Bida, L.S., 2018, Economic activity of Volyn population in 2017: Statistical Collection. Lutsk: Main Department of Statistics in Volyn Region. 105 p.
- [2]Bida, L.S., 2019, Economic activity of Volyn population in 2018: Statistical Collection. Lutsk: Main Department of Statistics in Volyn Region. 107 p.
- [3]Bohynia, D.P., 2003, Labor Market Competitiveness in the System of Social and Labor Relations. Kyiv: NAS of Ukraine, Institute of Economics. 214 p.
- [4]Boiar, A., O., Shmatkovska, T. O., Stashchuk, O. V., 2018, Towards the theory of supranational finance. *Cogent Business & Management*. 5(1). <http://doi.org/10.1080/23311975.2018.1482594>, Accessed on July. 20, 2020.
- [5]Dolishniy, M. I., Zlupko, S. M., 1997, Labor potential and employment: theoretical foundations and regional features. Uzhhorod: Karpaty. 422 p.
- [6]Dziamulych, M., Sadovska I., Shmatkovska T., Nahirska K., Nuzhna O., Gavryliuk O., 2020, The study of the relationship between rural population spending on peasant households with the main socio-economic indicators: a case study of Volyn region, Ukraine. *Scientific Papers: Series «Management, Economic Engineering in Agriculture and rural development»*, Vol. 20(2): 217-222. http://managementjournal.usamv.ro/pdf/vol.20_2/volume_20_2_2020.pdf. Accessed on July. 20, 2020.
- [7]Dziamulych, M., Shmatkovska, T., Gordiichuk, A., Korobchuk, T., 2020, Estimating peasant farms income and the standard of living of a rural population based on multi-factorial econometric modeling: a case study of Ukraine. *Scientific Papers: Series «Management, Economic Engineering in Agriculture and rural development»*, Vol. 20. Issue 1: 199-206. http://managementjournal.usamv.ro/pdf/vol.20_1/Art27.pdf. Accessed on July. 20, 2020.
- [8]Goroshko, L., 2006, Psychological aspects of the problem of active job search by unemployed persons. Ukraine: aspects of labor, 6: 16-20.
- [9]Grishnova, O.A., 2006, The human mind. Kyiv: KNEU. 218 p.
- [10]Kupalova, G.I., Chetveryk, V.M., 2013, Statistical-economic analysis, estimation and prospects of development of personnel of agricultural enterprises. Kyiv. 211 p.
- [11]Libanova, E.M., 2006, Human development in Ukraine: opportunities and directions of social investment. Kyiv: Institute of Demography and Social Research of NAS of Ukraine. 355 p.
- [12]Lyshylenko, V. I., 1998, Problems of reproduction of agricultural labor resources enterprises. *Economy of Ukraine*, 4: 68-69.
- [13]Onykienko, V. V., 2013, Labor market and social protection of the population of Ukraine: retroanalysis, problems, ways of decision. Kyiv: Institute of Demography and Social Research of the National Academy of Sciences of Ukraine. 456 p.
- [14]Petrova, T., Paziuk, O., Ponomariova, O., 2005, Methodical approaches to determining the state of regional labor markets of Ukraine. Ukraine: aspects of labor, 1: 9-16.
- [15]Popescu, A., Condei, R., 2015, Research on Romania's employment in agriculture and its position in the European Union, *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, Vol. 15(2), 281-289.
- [16]Popescu, A., 2013a, Considerations on the Rural Population as a Resource of Labor Force in Romania, *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, Vol. 13(3), 229-236.
- [17]Popescu, A., 2013b, Considerations on the main features of the agricultural population in the European Union, *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, Vol. 13(4), 213-220.
- [18]Popescu, A., Dinu, T. A., Stoian Elena, 2018, Demographic and economic changes characterizing the rural population in Romania, *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, Vol. 18(2), 333-346.
- [19]Popescu, A., Istudor, N., 2017, Gospodaria taraneasca in economia rurala (Peasant household in the rural economy), <https://www.rndr.ro/documente/brosuri/Gospodariataraneasca-in-economia-rurala.pdf>. Accessed on July. 20, 2020.
- [20]Popescu, M., 2009, Labour employment in Romania's agriculture and labour productivity increase. Gaps between Romania and European Union, *Agricultural Economics and Rural Development*, New Series, Year VI(2): 181-197 ftp://www.ipe.ro/RePEc/iag/iag_pdf/AERD0902_181-198.pdf. Accessed on July. 20, 2020.
- [21]Popescu, A., Matei, A., Sladescu, V., 2008, Research concerning production diversification and integration in order to increase productivity and competitiveness of family sericultural farms, *Scientific Papers Animal Science and Biotechnologies*, Vol. 41(1):702-707.
- [22]Popescu, A., Matei, A., 2008, Researches concerning the feasibility of Production Integration Management in a family sericultural farm, *Bulletin USAMV Cluj-Napoca, Horticulture*, Vol.65 (2): 302-307.
- [23]Popescu, A., 2015, Research on labour productivity in Romania's agriculture, *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, Vol. 15, Issue 2: 271-280.
- [24]Popescu, A., 2016, The position of tourist and agrotourist guesthouses in Romania's accommodation structures, *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, Vol. 16(1), 417-424.

[25]Popova, O. L., Skurska, N. M., 2006, Employment in the countryside: the consequences of agrarian reform. *Economics of agro-industrial complex*, 7: 132-138.

[26]Shmatkovska, T., Dziamulych, M., Gordiichuk, A., Mostovenko, N., Chyzh, N., Korobchuk, T. 2020, Trends in human capital formation and evaluation of the interconnection of socio-demographic processes in rural area: a case study of Volyn region, Ukraine. *Scientific Papers: Series «Management, Economic Engineering in Agriculture and rural development»*, Vol. 20. Issue 2: 437–444. http://managementjournal.usamv.ro/pdf/vol.20_2/volume_20_2_2020.pdf. Accessed on July. 20, 2020.

[27]State Statistics Service of Ukraine. Retrieved from: <http://www.ukrstat.gov.ua>. Accessed on July. 20, 2020.

[28]Tymbaliuk, I. O., Shmatkovska, T. O., Shulyk, Y.V., 2017, Tax alternatives to implement the tax capacity of internet activity in Ukraine. *Financial and credit activity: problems of theory and practice*. Kharkiv, 22: 336-344. <http://fkd.org.ua/article/view/110049>. Accessed on July. 20, 2020.

[29]Yakubiv, V., Boryshkevych, I. Yakubiv, R., 2019, Balanced system of economic performances as a strategy forming tool of development of agricultural enterprises in Ukraine. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development* Vol. 19(3), 669-680.

[30]Yakubiv, V., Polujk, M., 2019, Innovative methodologies for estimating the personnel of agricultural enterprises in Ukraine. *Scientific Papers. Series Management, Economic Engineering in Agriculture and Rural Development*, Vol. 19(1), 617-624.

http://managementjournal.usamv.ro/pdf/vol.19_1/volume_19_1_2019.pdf. Accessed on July. 20, 2020.

[31]Yakubiv, V., Sodoma R., Hrytsyna, O., Pavlikha, N., Shmatkovska, T., Tymbaliuk, I., Marcus, O., Brodska, I., 2019, Development of electronic banking: a case study of Ukraine. *Entrepreneurship and Sustainability Issues*, 7(1): 219-232. Retrieved from [http://doi.org/10.9770/jesi.2019.7.1\(17\)](http://doi.org/10.9770/jesi.2019.7.1(17)). Accessed on July. 20, 2020.

[32]Yanyshyn, Ya., Sodoma, R., Markiv, G., Lypych, L., Shmatkovska, T., Shidnytza, G., 2020, Economic efficiency of the nuts complex business in the agriculture of Ukraine. *Scientific Papers Series «Management, Economic Engineering in Agriculture and Rural Development»* Volume 20(2),531-536. http://managementjournal.usamv.ro/pdf/vol.20_2/volume_20_2_2020.pdf. Accessed on July. 20, 2020.

[33]Zakharchenko, V. I., 2004, Regionally asymmetric development of the national industrial complex in terms of market transformations. *Formation of market relations in Ukraine*, 7(38): 83-85.

[34]Zhurakovska, I. V., Sydorenko, R. V., Shmatkovska, T. O., Brodska, I. I., 2020, Factors of influence on employment in small and medium-sized business in Ukraine. *Financial and credit activity: problems of theory and practice*. Vol 1, 32: 109–119.

Retrieved from <http://fkd.org.ua/article/view/200379/200860>. Accessed on July. 20, 2020.