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Assessment of labor potential of the regions of Ukraine

Potapowa A., Gołub G., Pogriebskij T., Głuszko S. **Ocena potencjału pracy w regionach Ukrainy.** Określono istotę pojęć „potencjał pracy", „potencjał pracy regionu". Scharakteryzowano jakościowe i ilościowe wskaźniki potencjału pracy regionu. Zbadano udział rodzimych i zagranicznych uczonych w określeniu tych pojęć. Uogólniono naukowe podejścia i podstawy naukowo-metodycznne badań potencjału pracy regionu. Omówiono cechy zapewnienia potencjału pracy w regionach Ukrainy. Określono problemy racjonalnego wykorzystania potencjału pracy obwodu i sposoby ich przezwyciężenia. Zaproponowano metody wzrostu potencjału pracy na Ukrainie i nakreślono drogi dalszych badań nad tym pojęciem.

Потапова А., Голуб Г., Погребский Т., Глушко С. **Оценка трудового потенциала регионов Украины.** Раскрыта сущность понятий „трудовой потенциал", „трудовой потенциал региона". Охарактеризованы качественные и количественные показатели трудового потенциала региона. Исследован вклад отечественных и зарубежных ученых в определение этих понятий. Обобщены научные подходы и научно-методические основы изучения трудового потенциала региона. Рассмотрены особенности обеспечения трудовыми ресурсами регионов Украины. Выявлены проблемы рационального использования трудового потенциала области и способы их преодоления. Предложены способы наращивания трудового потенциала Украины и очерчены пути дальнейшего исследования этого понятия.

Потапова А., Голуб Г., Погребський Т., Глушко С. **Оцінка трудового потенціалу регіонів України.** Розкрито сутність понять „трудовий потенціал", „трудовий потенціал регіону". Охарактеризовано якісні та кількісні показники трудового потенціалу регіону. Досліджено внесок вітчизняних і зарубіжних учених щодо визначення цих понять. Узагальнено наукові підходи та науково-методичні основи вивчення трудового потенціалу регіону. Розглянуто особливості забезпечення трудовими ресурсами регіонів України. Виявлено проблеми раціонального використання трудового потенціалу області та способи їх подолання. Запропоновано способи щодо нарощування трудового потенціалу України та окреслено шляхи подальшого дослідження цього поняття.

Key words: region, geography of human potential, labor potential, labor resources, population, able-bodied population

Słowa kluczowe: region, geografia potencjału ludzkiego, potencjał pracy, zasoby pracy, populacja,

Ключевые слова: регион, география человеческого потенциала, трудовой потенциал, трудовые ресурсы, популяция, трудоспособная популяция

Ключові слова: регіон, географія людського потенціалу, трудовий потенціал, трудові ресурси, населення, працездатне населення

Abstract

The essence of the concepts "labor potential", "labor potential of the region" is revealed. Qualitative and quantitative indicators of labor potential of the region are characterized. The contribution of domestic and foreign scientists to the definition of these concepts has been studied. Scientific approaches and scientific and methodological bases of studying the labor potential of the region are generalized. Peculiarities of providing labor resources to the regions of Ukraine are considered. Problems of rational use of labor potential and ways of overcoming them are revealed. Methods for increasing the labor potential of Ukraine are proposed and ways to further study this concept are outlined.

Introduction

Formulation of the problem

One of the conditions of socio-economic development of the country, the region is the effective use of labor potential, one of the most important economic indicators. Without man, his work can not create any social, economic and other benefits. High-quality use of labor potential ensures sustainable economic development of the region and contributes to increasing the social stability of society. The formation of labor potential occurs in a crisis of reproduction and use of labor resources: natural and migratory population decline; unfinished labor market; underemployment, labor skills, level and health. Various indicators of labor resources assessment, their diversity leads to the need to determine a comprehensive assessment of labor potential at the regional level. In modern conditions, methods of labor potential assessment are debatable, so the assessment of labor potential of the region is especially necessary to improve the efficiency of its human resources management.

Analysis of recent research and publications

The state and development of society is largely determined by the quantitative and qualitative composition of the population. Human resources are a part of the population and a factor in the economic development of society, but this definition is used mainly by foreign scientists. In Ukraine, the concept of "labor potential" is more common. The concept of "labor potential" appeared in economics and the media in the 70's, and entered scientific circulation in the 80's of XX century (РУБАН, ПУСТОВІТ, 2009). The methodological basis for the study of labor potential was laid in the works of representatives of classical political economy A. Smith, D. Ricardo. K. Marx carried out an in-depth study of the nature of labor in his works, which enabled him to develop the labor theory of value (ГРИЩЕНКО, КОВАЛЕНКО, 2011). Foreign scientists of the XX century dealt with this issue. The works of R. Becker, J. Minser, and T. Schultz received the greatest recognition in the direction of creating the concept of human capital. Interest in the problems of labor potential has increased significantly in the context of modern global economic transformations. Ukrainian scientists studied the theoretical foundations of the formation and functioning of labor potential and its regional aspects. V. Lych analyzed the relationship between labor potential and the labor market, A. Krykliy studied the problems of labor potential formation, S. Hrynkevych and Z. Varnaliy considered the issue of quantitative assessment of labor potential. Comparative analysis of the main qualitative characteristics of labor potential was conducted in the works of O. Mykhaylenko. Prerequisites for the formation and use of labor potential as part of the economic potential of Ukraine have been studied in the research of O. Semyan. Qualitative indicators of labor potential are investigated in the works of A. Mykhailyuk. Some aspects of labor potential were analyzed by such scientists as I. Bazhan,

V. Shcherbak, N. Slivinska, T. Perekhrest and others (КЛИНОВИЙ, ПЕПА, 2006).

The purpose of the article

The purpose of this article is to assess the labor potential of the region, the method of implementation of which is a resource-rating comprehensive assessment. The starting point should be the systematization of balanced local indicators of labor potential of regions, identifying the advantages and disadvantages of existing conceptual approaches to assessing the labor potential of the region, developing an algorithm for comprehensive assessment of labor potential of the region and ranking regions (БАЛАЦКИЙ, 2004; БУХОНОВА, ДОРОШЕН-КО, 2004).

Research methodology

The study used materials from the State Statistics Service of Ukraine, as well as information from the scientific works of M. Pustovit, V. Gryshchenko, L. Kovalenko, L. Cherchyk, G. Mironenko, M. Akhrimkin, G. Maslova and others (ПРИЙМАК, 2006; РУБАН, ПУСТОВІТ, 2009; ГРИЩЕНКО, КОВАЛЕНКО, 2011; ПЕРЕПЕЛЮ-КОВА, 2011; САЛТАН, 2011; АХРОМКІН, МА-СЛОВА, 2012; ЧЕРЧИК, 2012a, b; МІРОНОВА, МАКАРЕНКО, 2014; NIEMETS ET al., 2014; NIE-METS et al., 2019) used general scientific, statistical-mathematical, comparative-geographical and other methods.

Results of the research

Labor potential is characterized by a combination of quantitative and qualitative indicators. The general level of use of the labor potential of society is evidenced by the receipt of national income per capita, because the higher its indicators, the better society uses its labor potential. The efficiency of the use of labor potential is characterized by a set of indicators that reflect the dynamics of factors influencing the growth of national income. In the practice of public management to assess the effectiveness of the use of labor potential are primarily indicators of labor efficiency. In practice, the quantitative assessment of the formation of labor potential is usually measured only in terms of such components as gender, age, level of education, health status. Trends in these indicators make it possible to predict the prospects for the formation of labor potential in the region (САЛТАН, 2011). The level of use of labor potential reveals a system of indicators that reflect: the degree of employment of the working population in social production (share of employees in social production), the structure of employment (ratio of employees in various economic activities), productivity of social labor. In the process of reproduction of labor potential, the final phase is its use. The use of labor potential means the degree (share) of its involvement in socially useful activities and the effectiveness of its use in the economy, i.e. realized labor activity. Attracting labor potential to socially useful work largely depends on how rationally it is located and distributed (ЛИЧ, 2003). Currently, the theory of labor potential of the region identifies several approaches to its comprehensive assessment: quantitative (in kind), cost, comprehensive (in relative terms), resource-rating, the analysis of which revealed their features.

The method of quantitative assessment (in kind) of labor potential is based on determining the labor potential of society, taking into account the potential working time. The assessment is based on the following items:
- the population and the statutory amount of working time of the calendar period, the working age population minus the disabled of the I and II groups, working adolescents and retirees;
- the number of employed and unemployed persons of working age, pendulum migration.

The cost (economic) method of assessing labor potential is determined by the cost of forming individual labor potential of the relevant form of education. The cost approach is aimed at reproducing the population of the region by

determining the value of a unit of labor potential, taking into account education and environmental protection. The resource-rating method is based on the assessment of the labor potential of the organization when comparing quantitative and qualitative components, taking into account the totality of labor force of an individual employee, labor reserve, synergistic effect (КАЛИНИНА, КОЗЛОВ, 2009). Indicators of resource and reserve of each employee of the organization are evaluated by the rating method through the compilation of matrices for assessing the reserve and resource of the employee. The synergistic effect, given the complexity of its calculation, it is proposed to determine a certain percentage of the sum of all reserves and resources of the organization. The use of resource-rating method is appropriate in the region, but needs to be improved.

The quality of life index is calculated on the basis of 9 factors: GDP per capita, life expectancy of newborns, ratings of political stability and security, the number of divorces per thousand people per year, community activity (religious, trade and others), climate, unemployment, political and civil liberty, the ratio of income of men and women. Analysis of conceptual approaches to comprehensive assessment of labor potential allows us to identify the most acceptable of them for the conditions of the region: resource-rating with elements of a relative approach to determining indicators. According to this approach, a balanced system of significant resource factors is formed in the form of the working population of the region, its employment and reproduction, procedures for calculating integrated indices and ranking of regions are performed. The value of indices in the ratings is identified with the labor potential of the regions in the economic system of the country. Characterizing the working population, it should be noted that this is the main part of the labor force of working age, with the necessary psychophysical development, knowledge and practical experience, which is able to fully participate in physical and intellectual work. Working capacity directly depends on the state of

human health and other reproductive factors. Reproduction of labor resources can be intensive or extensive. Extensive type – a quantitative increase in the number of labor resources without changing their qualitative characteristics. Intensive type – increasing the quality of labor resources: education, training and qualifications, culture, health (ЯЛБАЧЕВА, 2004).

The reproduction of labor potential in a market economy forms certain labor supply, and the use of labor begins with the demand for it by economic entities. The labor market is seen as a system of social relations that ensure the reproduction, exchange and use of labor resources (ДЖАИН, 2002). In recent years, the importance of migration in the population of the country's regions has sharply increased, which promotes the exchange of work skills, experience and knowledge, staff renewal, achieving a balance between labor supply and demand in the country's regions. The study of the levels of local indicators and the integrated index of TP regions allowed to identify positive and negative factors, the impact of which affected the ranking of regions. Analysis of the positive factors of the first cluster of regions of Ukraine showed that: the first in the ranking Kyiv region from Kyiv has an advantage due to positive factors: the working population and its economically active share, employment, education; Lviv region ranks second in the ranking due to its superiority in terms of the level of migratory population growth, level of education, level of vocational training. Khmelnytsky region ranks third due to the level of education, the level of vocational training and the level of health of the population; Odessa region (4th place) – due to levels of employment and education, migration growth; Rivne region (5th place) – due to the level of vocational training and the level of health of the population; Dnipropetrovsk region (6th place) – the size of the working population and its economically active share, the highest level of education among the regions of Ukraine.

Analysis of the negative factors of the second cluster of regions of Ukraine showed that

the rating was influenced by the following negative factors: Transcarpathian region (24th place) – low level of coverage of vocational training and education; Chernivtsi region (23rd place) – natural population decline, employment of the working population; Donetsk region (22nd place) – migration and natural population decline; Zhytomyr region (21st place) – economically active share of the population. The number of the current population in Ukraine, according to estimates, on December 1, 2021 was 41,208.1 thousand people. During January–December 2021, the population decreased by 346.3 thousand people. Compared to 2020, the volume of natural decline increased by 56.8 thousand people. The number of live births in January-November 2021 was 250.9 thousand people, deaths – 650.0 thousand people. According to the results of the labor force survey, the number of labor force aged 15 and older in January–September 2021 amounted to 17.5 million people, of whom aged 15–70 years – 17.4 million people, which is 0.6% less than in January–September 2020 In the labor force, among people aged 15 and over, 54.9% were employed, and the remaining 9.6%, according to the methodology of the International Labor Organization (ILO), were classified as unemployed. More than half of the workforce were men (63.1%) and 46.5% were young people aged 15–34. The number of employed people aged 15 and over in January-September 2021 was 15.8 million, and among people aged 15–70 – 15.7 million. Compared to January–September 2020, the number of employed people aged 15–70 decreased by 286.3 thousand people, or 1.9%. In January–September 2021, the employment rate of the population aged 15 and older was 49.6% of the population of the corresponding age, for persons aged 15–70 – 56.0%. Among people aged 15–70, this rate was higher for men compared to women and urban residents than for rural residents. The number of unemployed people aged 15 and over and aged 15–70, according to the methodology of the International Labor Organization, was 1.7 million (POTAPOVA et al., 2021; POTAPOVA, POHREBSKYI, GOLUB, 2022).

In January–September 2021, the unemployment rate of the population aged 15 and over was 9.6% of the labor force of the corresponding age, and among persons aged 15–70 – 9.7%. Among people aged 15–70, this figure was higher for women compared to men (10.0% vs. 9.4%) and for rural residents than for urban residents (10.4% vs. 9.3%). The highest unemployment rate (according to the ILO methodology) was observed among young people aged 15–24 (18.8%), and the lowest – among persons aged 30–34 (8.5%) and persons older than 60 (0.3%). The number of persons not in the labor force aged 15 and over in January–September 2021 amounted to 14.4 million people, which is 0.7% more than in January–September 2020. Of the total number of persons. Almost two thirds (65.6%) of those who did not work or did not look for a job were retired, one in seven was a student (full-time student) or did homework. In December 2021, the average salary (nominal) of a full-time employee was UAH 17,453, which is 2.7 times higher than the level of the minimum wage (UAH 6,500). The types of economic activity with the highest level of wages in December 2021 included employees of air transport (UAH 37,580.00), financial and insurance institutions (UAH 31,273.58), information and telecommunications (UAH 29,963.23), public administration and defense; compulsory social insurance (UAH 26,924.07), as well as professional, scientific and technical activities (UAH 24,822.31); among the industrial activities – enterprises for the production of coke and refined products, for the supply of electricity, gas, steam and air conditioning, mining and quarrying, for the production of basic pharmaceuticals and pharmaceuticals, where wages exceeded the average for the economy in 1.4–1.9 times.

The lowest level of wages was observed in enterprises of temporary accommodation and catering, postal and courier activities, textile production, production of clothing, leather, leather goods and other materials, the functioning of libraries, archives, museums and other cultural

institutions, where wages are not exceeded 72.7% of the average level in the economy. The average nominal wage in all regions was higher than the minimum, however, only in two of them it exceeded the average level in Ukraine: Kyiv – UAH 26,759, Mykolaiv region – UAH 18,414. The lowest rates, which did not exceed 81.7% of the economic average, were observed in Kirovohrad, Chernihiv, Ivano-Frankivsk and Kherson regions. In 2021, the average salary (nominal) of a full-time employee increased compared to 2020 by 20.9% and amounted to UAH 14,014. The amount of wages in December 2021 compared to November 2021 increased by 22.2%, compared to December 2020 – by 23.1%. The index of real wages in December 2021 compared to November 2021 amounted to 121.5%, compared to December 2020 – 111.9%. Wage arrears in December 2021 decreased by 18.7%, or by UAH 735.7 million, and as of January 1, 2022 amounted to UAH 3207.1 million. If in the economy as a whole wage arrears amounted to 2.5% of the wage bill accrued in December 2021, then by type of economic activity this figure ranged from 0.04% in public administration and defense; compulsory social insurance, up to 45.2% in the manufacture of machinery and equipment, not included in other groups. In the regional context, this ratio ranged from 0.2% in Chernivtsi and Kirovohrad oblasts to 11.4% in Donetsk and Sumy oblasts.

As of January 1, 2022, more than three quarters (75.1%) of wage arrears fell on industry. A significant decrease in December 2021 was observed in the extraction of hard and brown coal (by UAH 452.6 million), health care and social assistance (by UAH 75.8 million), in the field of professional, scientific and technical activities (by UAH 34.2 million), production of motor vehicles, trailers and semi-trailers and other vehicles (by UAH 33.1 million). At the same time, more than half of arrears of wages were formed in four regions: Donetsk (20.8%), Kharkiv (15.3%), Dnipropetrovsk (14.8%) regions and Kyiv (13.5%). Debt reduction in December 2021 was observed in 23 regions, and the most significant – in Donetsk (by UAH 279.9 million), Lviv (by UAH 152.8 million), Luhansk (by UAH 93.4 million). oblasts and the city of Kyiv (by UAH 89.1 million) (*Державна служба статистики…*).

Conclusions and prospects of further research

The use of the method of resource-rating comprehensive assessment of the labor potential of the region allows to solve the problem of objective measurement of the labor potential of the region, to show the advantages and disadvantages of the regions of the country. It will help bring to the regional public administration bodies an accessible mechanism for self-assessment of TP in the region, which can be used in the development and justification of management decisions directly related to staffing programs of socio-economic development of the region. The development of an appropriate social policy in the field of labor in order to influence the processes of reproduction of the population and its employment is of great importance for the assessment of the labor market.

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