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Socio-demographic factors of population resettlement of Volyn Region

Potapowa A., Pogrebskij T., Golub G. **Czynniki społeczno-demograficzne przemieszczania się ludności w obwodzie wołyńskim.** Artykuł jest poświęcony analizie teoretyczno-praktycznej badań przemieszczania się ludności w obwodzie wołyńskim. Autorzy określają konceptualne podstawy migracji, ponieważ są one ważnym wskaźnikiem proporcjonalności rozwoju obszaru i efektywnego wykorzystania potencjału ekonomicznego. Wykazano, że wpływ na kształtowanie się przemieszczeń ludności wywiera kilka grup czynników. Jedną z tych grup stanowią czynniki produkcyjno-ekonomiczne, czyli poziom zatrudnienia ludności, struktura i specjalizacja kompleksu gospodarczego, gwarancje finansowe i poziom rozwoju społeczno-gospodarczego regionu administracyjnego. Szczegółowa analiza wskaźników w regionach administracyjnych obwodu pozwala na stwierdzenie i udokumentowanie prawidłowości w przemieszczaniu się ludności na obszarze obwodu wołyńskiego.

Потапова А., Погребський Т., Голуб Г. **Соціально-демографічні фактори розселення населення Волинської області.** Стаття присвячена теоретико-практичному аналізу дослідження розселення населення Волинської області. Автори визначають концептуальні основи міграцій, оскільки вони є важливим показником пропорційності розвитку території та ефективного використання економічного потенціалу. Показано, що на формування розселення населення впливає декілька груп факторів. Одну з груп складають виробничо-економічні, а саме рівень зайнятості населення, структура та спеціалізація господарського комплексу, фінансове забезпечення та рівень соціально-економічного розвитку адміністративного регіону. Детальний аналіз показників у адміністративних районах області дозволяє виявити і показати закономірності розподілу населення по території області.

Потапова А., Погребський Т., Голуб Г. **Соціально-демографічні чинники розселення населення Волинської області.** Стаття присвячена теоретико-практичному аналізу дослідження розселення населення Волинської області. Автори визначають концептуальні основи міграцій, оскільки вони є важливим показником пропорційності розвитку території та ефективного використання його економічного потенціалу. Показано, що на формування розселення населення впливає декілька груп факторів. Одну з груп складають виробничо-економічні, а саме рівень зайнятості населення, структура та спеціалізація господарського комплексу, фінансове забезпечення та рівень соціально-економічного розвитку адміністративного регіону. Детальний аналіз показників у адміністративних районах області дає змогу виявити і показати закономірності розподілу населення по території області.

Key words: population, migration, population resettlement, Volyn region

Słowa kluczowe: ludność, migracja, przemieszczanie się ludności, obwód wołyński

Ключевые слова: население, миграции, расселение населения, Волинская область

Ключові слова: населення, міграції, розселення населення, Волинська область

Abstract

The article is devoted to the theoretical and practical analysis of the resettlement of the population of the Volyn region. The authors define the conceptual basis of migration, as they are an important indicator of the proportionality of the development of the territory and the effective use of its economic potential. It is shown that the formation of population resettlement is influenced by several groups of factors. One of the groups consists of production and economic, namely the level of employment, the structure and specialization of the economic complex, financial security and the level of socio-economic development of the administrative region. A detailed analysis of indicators in the administrative districts of the region allows to identify and show the patterns of population distribution in the region.

Introduction

Formulation of the problem. One of the main tasks of human geography is the study of settlement of population resettlement and the process of distribution and redistribution of the population by territory and its result – a network of settlements. This concept includes the location of the population, interconnection of settlements and population migration.

Population resettlement is a complex socio-economic process, so along with the human geography, it is studied by demography, sociology, ethnography and other sciences. It is important for geography to consider settlement in interaction with the natural environment.

Analysis of recent research and publications. To ensure the efficiency of the economic complex, the study of the population and the peculiarities of its settlement are becoming increasingly important. At the present stage, there are few scientific works that would thoroughly investigate the peculiarities of formation, structure, the main characteristics of the settlement of the population of the region.

The research is based on the fundamental provisions of the theory of geographical sci-

ce, the approaches of Ukrainian and foreign scientists to the comprehensive study of the settlement system. The methodology of socio-geographical research was developed by Yu. Saushkin, O. Topchiev, O. Shablii, Ya. Zhupansky, Ya. Oliynyk, M. Pistun.

G. Anisimova, V. Dzhaman, A. Dotsenko, Ya. Zhupansky, B. Zastavetsky, M. Malsky, M. Palamarchuk, Yu. Pityurenko, O. Shablii and others studied regional settlement systems. Their works identified the features of the territorial settlement systems, their relationships with other territorial systems (economic, industrial, natural, etc.), studied the structure of such systems and the relationships between them, established the principles of territorial organization of settlement systems.

Socio-geographical research of the population of the Volyn region was conducted by S. Pugach, V. Poruchynskyi, I. Poruchynska, T. Pohrebskyi, G. Golub.

The purpose of the article. The purpose of the article is to reveal the influence of factors on the population resettlement in the administrative districts of Volyn region.

Research methodology

Methodological bases of population resettlement are based on general scientific and philosophical methods. Such methods include: historical, geographical, axiomatic-deductive, abstraction, analysis of analog objects, balance, cartographic, modeling, comparative, classification and typing, system methodology, relationships and interdependencies. All real-world objects "move", that is, change, go through certain phases and stages of their development. Moreover, the very principles and methods of cognition of reality are changing, theories and paradigms are changing. The historical approach is especially important, because humanity is extremely carefully studying the dynamics and trends of its socio-economic and spiritual development.

Results of the research

An important characteristic of the socio-economic development of the region is the demographic capacity of the territory. This information is especially important for further planning of economic development of the region. Demographic capacity means the maximum number of inhabitants that can be located on its territory, provided that the most important daily needs

of the population are provided with resources, taking into account the preservation of the natural environment.

Scientists (O. Topchiev, D. Malchikova, etc.) pay attention to the potential capacity of the territory and the real, related to the level of economic development of the territory. The capacity of the Volyn region changed during 1990–2021, as the population changed (fig. 1).

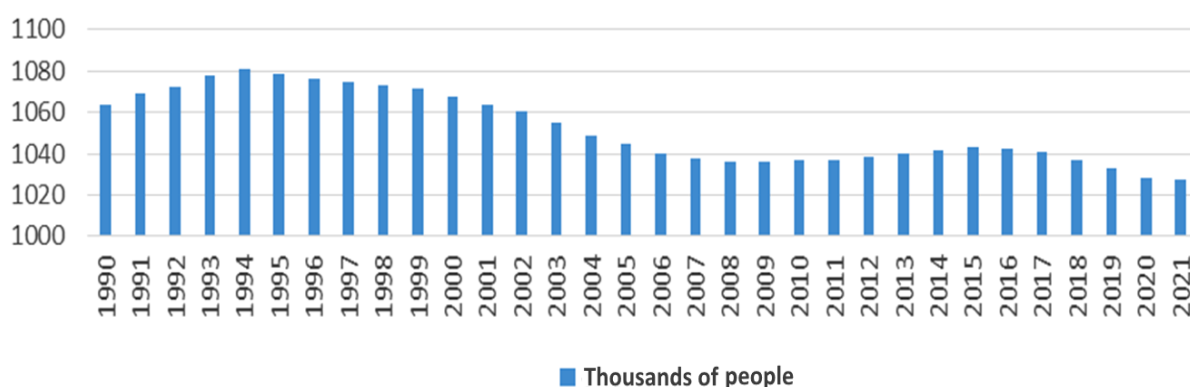


Fig. 1. Dynamics of the population in the Volyn region in 1990–2021
 Rys. 1. Zmiany liczby ludności w obwodzie wołyńskim w latach 1990–2021
 Рис. 1. Динамика численности населения в Волынской области в 1990–2021 г.

The largest number of population of the region was registered in 1994 (1 080.7 thousand people), and the smallest number – in 2021 (1 027.4 thousand people). The largest number of population lives in Lutsk (456.9 thousand people), and the smallest – in Kamin-Kashyrs-

kyi (131.8 thousand people) districts (fig. 2). The population in Polissya districts (Kamin-Kashyrskyi, Kovel), as of January 1, 2021, is 52.1% of the population, and the population of the Southern districts (Volodymyr-Volynskyi, Lutsk) is 49%.

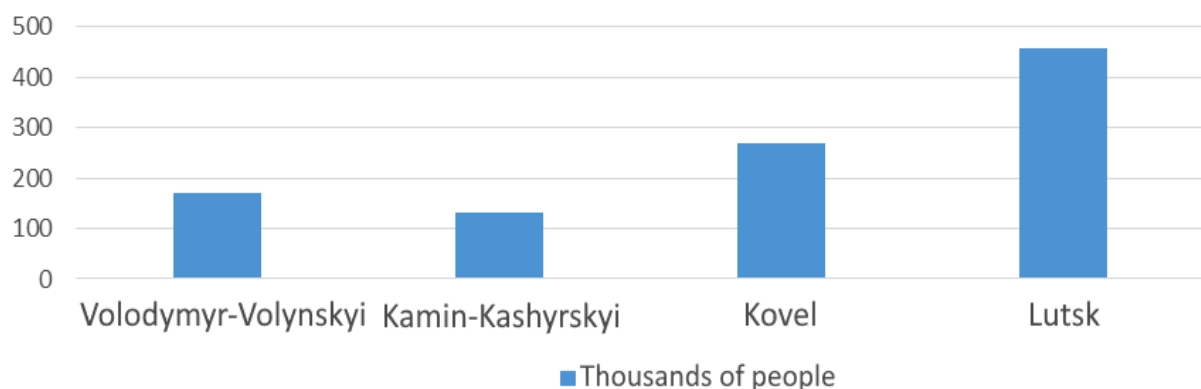


Fig. 2. The population of the administrative districts of Volyn region in 2021
 Rys. 2. Liczba ludności w rejonach administracyjnych obwodu wołyńskiego w roku 2021
 Рис. 2. Численность населения административных районов Волынской области в 2021 г.

From 15 to 30 thousand people live in Shatsk, Lokachi, Turiysk territorial community (19% of TC of the region); in Stara Vyzhivka, Lyubeshiv, Rozhysche Lyuboml territorial communities (25% of TC of the region) – from 30 to 50 thousand people; in Volodymyr-Volynskiy, Horokhiv, Ivanychi, Kamin-Kashyrskiy, Kiver-tsi, Manevychi, Ratne territorial communities (44% of TC regions) – from 50–100 thousand people; in Lutsk, Kovel territorial communities (12% of TG of the region) live from 100 to 300 thousand people (БЕГУН, 2016).

Accordingly, in Polissya districts live from 50 to 150 thousand people, and in forest-steppe – from 50 to 300 thousand people. The population of the districts depends on many factors: the history of development and settlement of the territory, economic and demographic indicators. In the Volyn region, natural population growth has been declining significantly since 1990. Thus, in 1990–2005 it changed from 4.1 people to 3.2 people. From 2005 to 2013 there was a trend of increasing natural population growth (1.0 people), and in 2016–2021 it decreased and in 2021 amounted to -4.8 people (fig. 3).

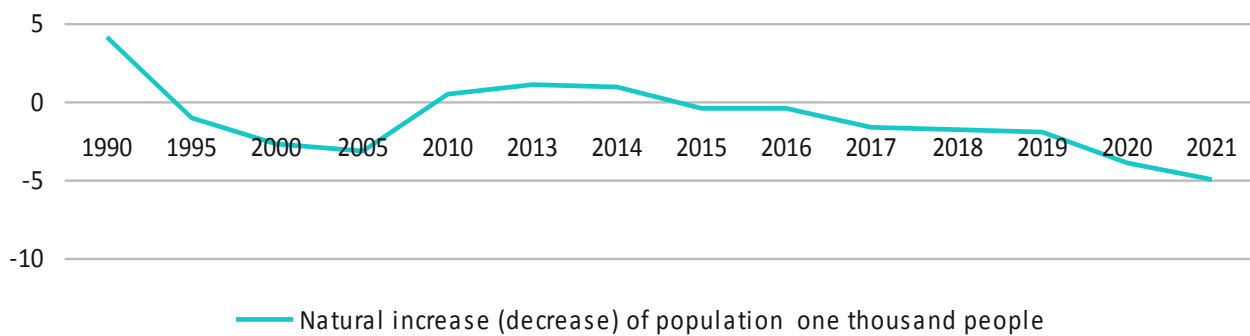


Fig. 3. Dynamics of natural increase (decrease) of population in Volyn region

Rys. 3. Dynamika przyrostu naturalnego (ubytku) ludności w obwodzie wołyńskim

Рис. 3. Динамика естественного прироста (сокращения) населения в Волинской области

According to the Department of Statistics in the Volyn region in 2021 the largest positive natural increase was registered in two administrative districts: Kamin-Kashirsky (3.7) and Lutsk (1.3) and in the cities of Lutsk (2.1) and Kovel (1.3). The largest negative natural population growth is observed in Kovel (-5.3), Volodymyr-Volynskiy (-3.9) districts and in the city of Novovolynsk (-3.0).

In Polissya districts the natural population growth was -0.8 people, and in the forest-steppe -3.3 people. Based on the combined statistical data, we have identified the territories of administrative districts according to the similar dynamics of demographic processes. Thus, demographic processes are divided into relatively favorable, not sufficiently favorable, deteriorating, significantly worsened and unfavorable groups (fig. 4).

Accordingly, it can be noted that in Polissya districts there is not enough favorable dynamics of demographic processes (-0.8 people), and in forest-steppe – significantly worsened dynamics of demographic processes (-3.3) (ПАВЛОВСЬКА, 2019; PAVLOVSKA et al., 2019). Estimation of the capacity of the territory is the population density of the region, which was formed in the process of settlement and economic development of the territory. The level of socio-economic development of the region has a decisive influence on the population of the territory. The average population density in the region is 51.6 people/km², which is almost 1.5 times less than the average in Ukraine. More than 70% of the total population of Volyn region is concentrated in the central and southern territories of the region (Lutsk district with Lutsk, Ivanychi TC with Novovolynsk, Kovel TC with Kovel, Volodymyr-Volynskiy

TC from Volodymyr-Volynskiy), so the density the population here reaches 75 people/km². Polissya territories of Volyn region (Kovel and Kamin-Kashyrskiy districts) is much less po-

pulated (population density – 22–36 people/km²) (*Соціально-демографічне дослідження...*, 2020).



Fig. 4. Dynamics of demographic processes in the districts of Volyn region in 2021
 Rys. 4. Dynamika procesów demograficznych w rejonach obwodu wołyńskiego w roku 2021
 Рис. 4. Динамика демографических процессов в районах Волынской области в 2021 г.

In domestic urban planning, the needs in the territory are estimated for 1 thousand inhabitants per 20–25 hectares, depending on the production base. We calculated the capacity of the territory of administrative districts according to domestic urban planning in the needs of the territory. The demographic capacity of the two districts (Lutsk and Volodymyr-Volynskiy), which is 25% of all districts, is 20–25 hectares per 1,000 inhabitants, other districts (69%) – from 25 hectares and more per 1,000 inhabitants. The demographic capacity of the forest-steppe districts is 15–25 ha per 1,000 inhabitants, and the Polissya ones – from 20 ha and more. An important and integral aspect of the

characterization of human potential is the social well-being of the population, especially the health of the population. The main determinants of health are lifestyle, environment, genetic (hereditary) factors, medical factors (fig. 5).

Factors affecting human health depend on age, physical characteristics, gender and character. The lifestyle factor has the greatest impact. Thus, smoking, alcohol consumption and drug addiction, poor quality food, stress, lack of prospects have a negative impact on human health. The second factor is the environment. Man and the natural environment are closely linked, namely polluted air, poor quality water has a negative impact on public health.

Hereditary factors also affect human health. As for the medical factor, it has the least impact on the state of health among the factors, but the

received medical care can save both a person's health and his life.

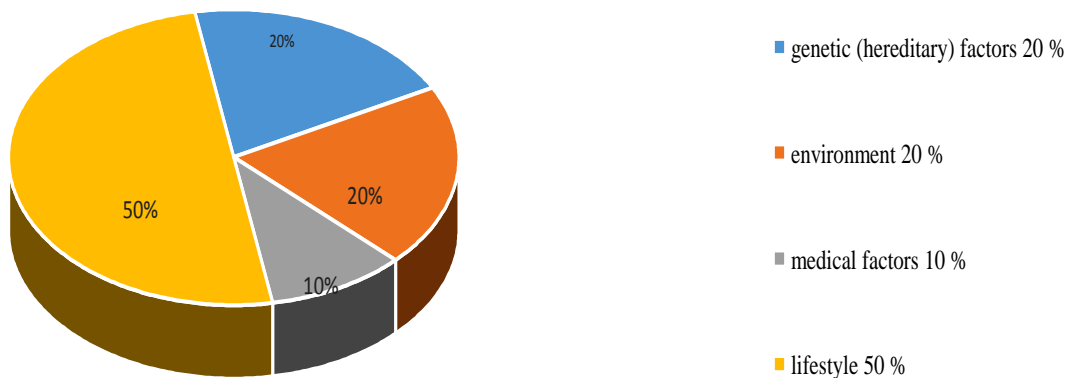


Fig. 5. Factors affecting human health
 Rys. 5. Czynniki wpływające na zdrowie człowieka
 Рис. 5. Факторы воздействия на здоровье человека

According to medical and statistical data from 2021, the most important problem in the field of public health in the Volyn region is COVID-19 and diseases of the circulatory system. Their prevalence is more than half per 100 thousand population over the age of 18, and the incidence rate is about 100%. In the structure of mortality of the population of the region the first place is also occupied by COVID-19 and circulatory system diseases – 68.1%. Thus, on December 29, 2020, there were 32,626 cases of COVID-19 in the Volyn region, and on May 20, 2021, 60,269 cases were registered. Accordingly, the number of patients with COVID-19 has doubled compared to last year. Mortality from these diseases is the highest among people of working age – 25.7%. In the structure of primary disability from diseases of the circulatory system, this figure is 20.6%. Among all diseases, malignant neoplasms occupy an important place, amounting to 282 per 100 thousand people, respiratory tuberculosis – 55 per 100 thousand people, HIV – 25 per 100 thousand people. If in 1990 the number of patients was 2.1% of the total population, in 2019 – 2.4%. Maintaining

mental health is incompatible with the use of any psychoactive substances (alcohol, nicotine, drugs). In 1990, the share of patients with alcoholic psychosis and psychoactive substances was 1.2% and 0.02%, then in 2021 – 1.4% and 0.1% of the total population, respectively (fig. 6).

Nicotine addiction is the most common mental disorder, which does not help to get rid of stress, but, on the contrary, increases its level, which contributes to the development of severe mental disorders. Psychological criteria of mental health, according to researchers, can include adaptability in microsocioal relationships; ability to self-regulation, which is manifested in behavioral manifestations; the ability to intelligently plan life goals and maintain activity in achieving them. The income of the population affects the quality of life and contributes to its well-being. This is the amount accrued in cash and in kind: wages, profits and mixed income, income from property, social assistance and other current transfers (fig. 7). In 2021, the average salary of the population of the region was 11,031 UAH, which is 8% (2,581 UAH) less than the average in Ukraine (13,612 UAH).

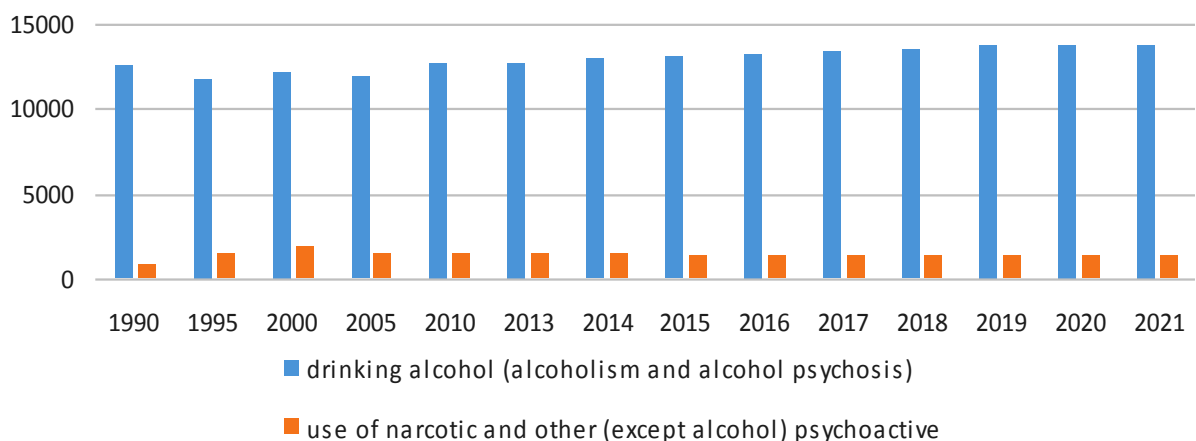


Fig. 6. Dynamics of the incidence of mental and behavioral disorders due to the use of psychoactive substances in the Volyn region

Rys. 6. Dynamika zachorowań na zaburzenia psychiczne i zachowań wskutek używania substancji psychoaktywnych w obwodzie wołyńskim

Рис. 6. Динамика заболеваемости расстройствами психики и поведения вследствие употребления психоактивных веществ в Волинской области

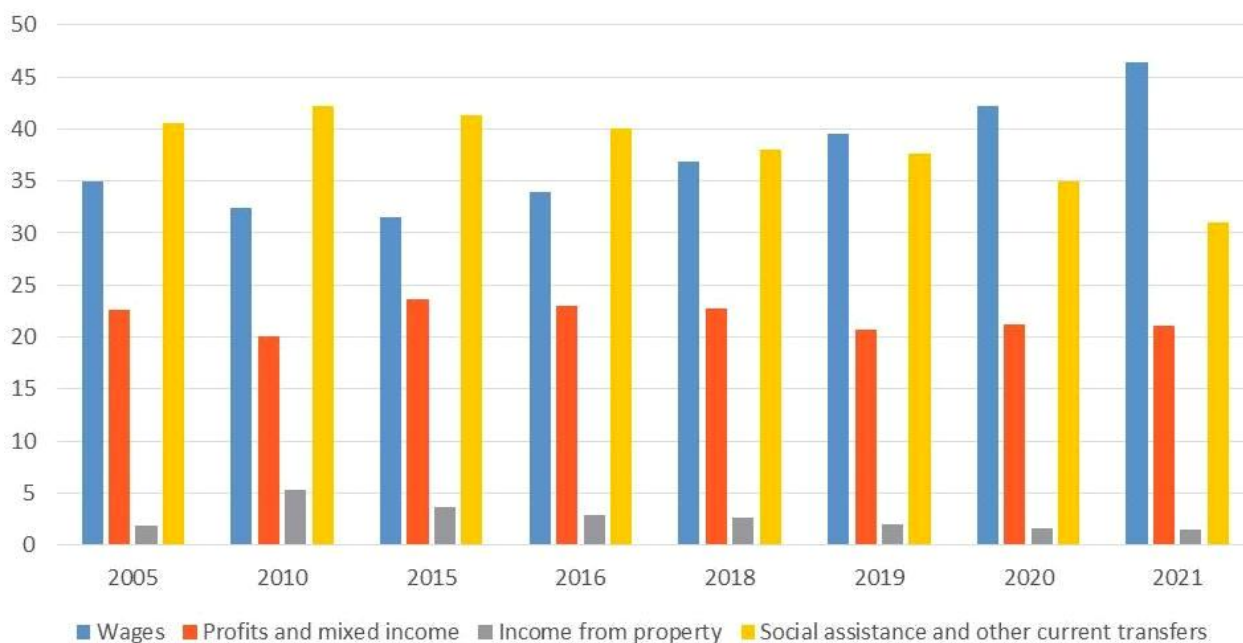


Fig. 7. Dynamics of income structure of the population of Volyn region, %

Rys. 7. Dynamika struktury dochodów ludności obwodu wołyńskiego, %

Рис. 7. Динамика структуры доходов населения Волинской области, %

Since 2000, there has been a positive trend in the growth of average monthly wages (fig. 8).

The most noticeable jumps in the increase in average wages were in the period from 2016 (4,047 UAH) to 2018 (5,849 UAH), from 2018 (5,849 UAH) to 2019 (8,089 UAH). The average monthly salary of full-time employees of the region for 21 years has increased almost 73 times,

from 150 hryvnias in 2000 to 11,031 hryvnias in 2021. The highest average monthly wages among the districts and cities of Volyn region are available in Lutsk (UAH 10,834) and Kamin-Kashytsky (UAH 9,591) districts and in the cities of Novovolynsk (UAH 10,960), Lutsk (UAH 10,714), and the lowest – in Volodymyr-Volynskyi district (UAH 8,318) (fig. 9) (ЧЕРЧИК, 2008).

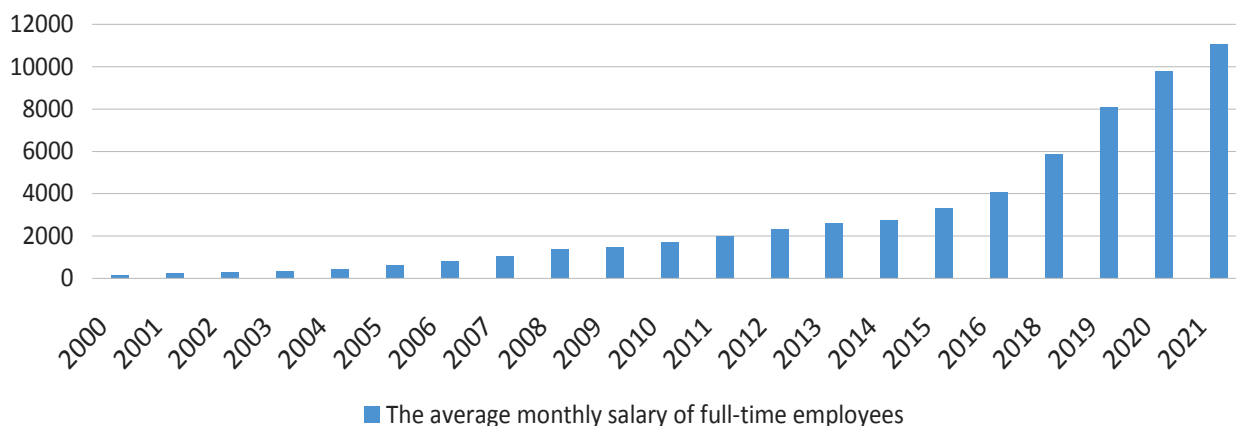


Fig. 8. Dynamics of the average monthly salary of full-time employees of Volyn region, UAH
 Rys. 8. Dynamika średnich miesięcznych zarobków pracowników etatowych obwodu wołyńskiego, UAH
 Рис. 8. Динамика среднемесячной заработной платы штатных работников Волинской области, грн.

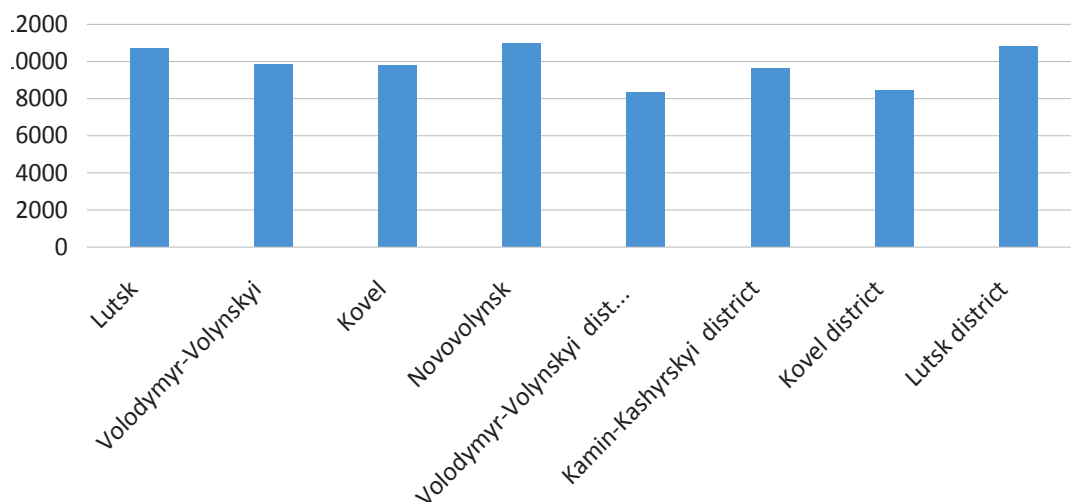


Fig. 9. Average monthly nominal salary of full-time employees by cities and districts of Volyn region in 2021
 Rys. 9. Średnia miesięczna nominalna płaca pracowników etatowych w miastach i rejonach obwodu wołyńskiego w roku 2021
 Рис. 9. Среднемесячная номинальная заработная плата штатных работников в разрезе городов и районов Волинской области в 2021 году

As of 2021 in the Volyn region for men the most paid were the following types of economic activity: financial and insurance activities (14,995 UAH/month), public administration and defense, compulsory social insurance (14,042 UAH/month), industry (13,647 UAH/month). Types of economic activity with the lowest rate of payment: wholesale and retail trade; repair of motor vehicles and motorcycles (8,105 UAH/month), transport, warehousing, postal

and courier activities (8,769 UAH/month), temporary accommodation and catering (7,704 UAH/month), real estate transactions (7,514 UAH/month), activities in the field of administrative and support services (7,811 UAH/month), arts, sports, entertainment and recreation (8,448 UAH/month), professional scientific and technical activities (8,843 UAH/month).

In forest-steppe districts, the average monthly nominal wage is higher than in Polissya

districts and amounts to UAH 9,576/month, and in Polissya districts – UAH 9,023/month. The income of the population includes pensions (labor and social). Social pensions are used by a small number of people (less than 5%), labor pensions are received by about 95% of retirees.

The average size of the monthly pension assigned to pensioners is characterized by positive dynamics (fig. 10).

An integral part of personal income is household income (fig. 11).

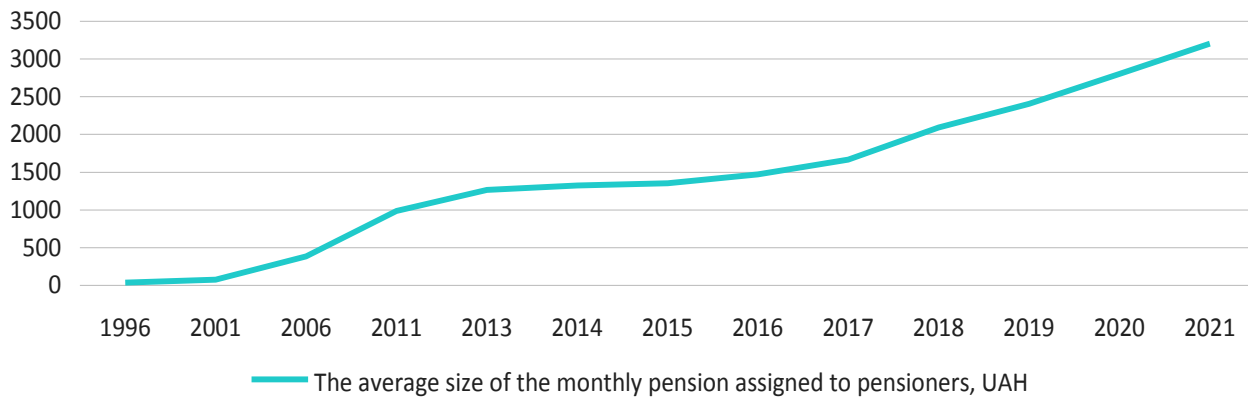


Fig. 10. Dynamics of the average size of the assigned monthly pension to pensioners who are registered in the bodies of the Pension Fund

Rys. 10. Dynamika średniej miesięcznej emerytury należnej emerytom zarejestrowanym w organach Funduszu Emerytalnego

Рис. 10. Динамика среднего размера назначенной месячной пенсии пенсионерам, состоящим на учете в органах Пенсионного фонда

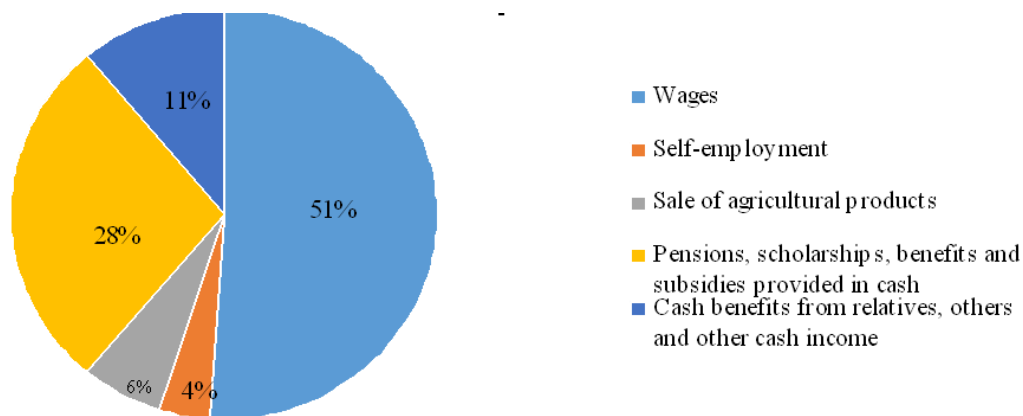


Fig. 11. The structure of cash income of households in 2021

Rys. 11. Struktura dochodów pieniężnych gospodarstw domowych w roku 2021

Рис. 11. Структура денежных доходов домохозяйств за 2021 г.

The largest share of household income is accounted for by wages, which is 51%, pensions, scholarships, benefits and subsidies provided in cash (28%), cash benefits from relatives, others and other cash income (11%), and the least accounted for income from the sale of agricultural products and income from entrepreneurial activity and self-employment 6% and 4% res-

pectively. An important characteristic of the well-being of the population is the level of its culture. This is a multilevel system that is divided into material and spiritual. Material culture depends on the level of education, mentality and level of computerization, and spiritual culture includes spirituality and mentality. Culture, in its essence, is the process of forma-

tion, functioning, development of human potential, the process of creation and reproduction of man as a social being, as a subject of social activity. Spiritual life and its subjects are engaged in the production, distribution and preserva-

tion of spiritual values (clubs, libraries, theaters, museums, religious and social organizations). During 1990–2021, the dynamics of libraries and club facilities in the region changed (fig. 12).

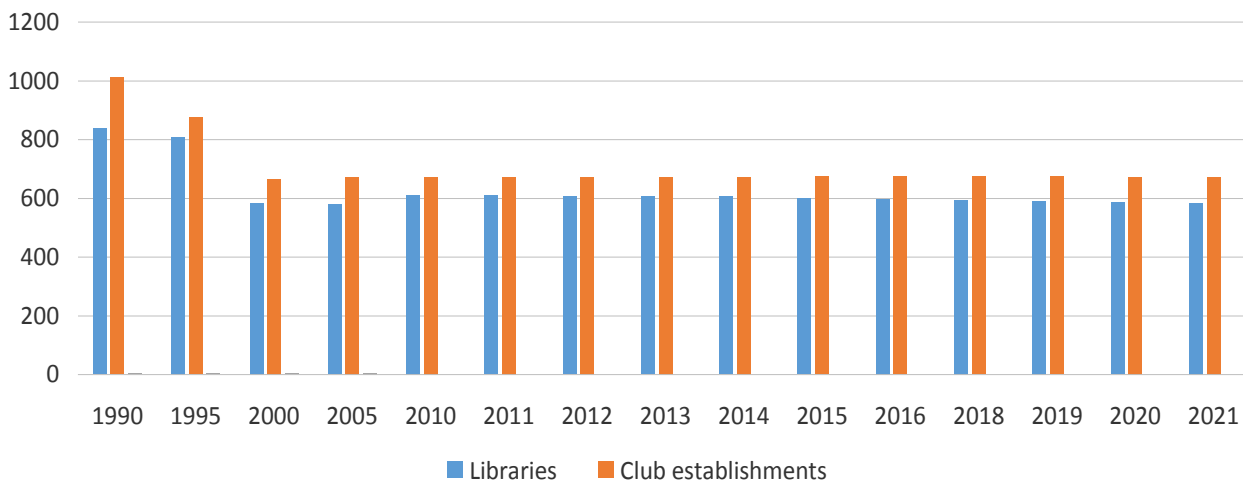


Fig. 12. Dynamics of libraries and clubs of Volyn region
 Rys. 12. Zmiany liczby bibliotek i klubów w obwodzie wołyńskim
 Рис. 12. Динамика библиотек и клубных заведений Воынской области

If in 1990 there were 0.8 libraries and 1.0 club establishments per 1,000 people, in 2021 there were 0.5 and 0.6, respectively. According to the number of cultural institutions, in Polissya districts there is a larger share of them: libraries (0.84), club establishments (1.0), and in forest-steppe districts – less (libraries – 0.7; club establishments – 0.72) (fig. 13). Kamin-Kashyr-

skyi (0.9) district is the best provided with libraries (per 1,000 population); club establishments – Kovel district (1,1). Volodymyr-Volynskyi (0,7) district has the least number of libraries per 1,000 population; club establishments Lutsk (0.8), Ivanychiv (0.4), Volodymyr-Volynskyi (0.8).

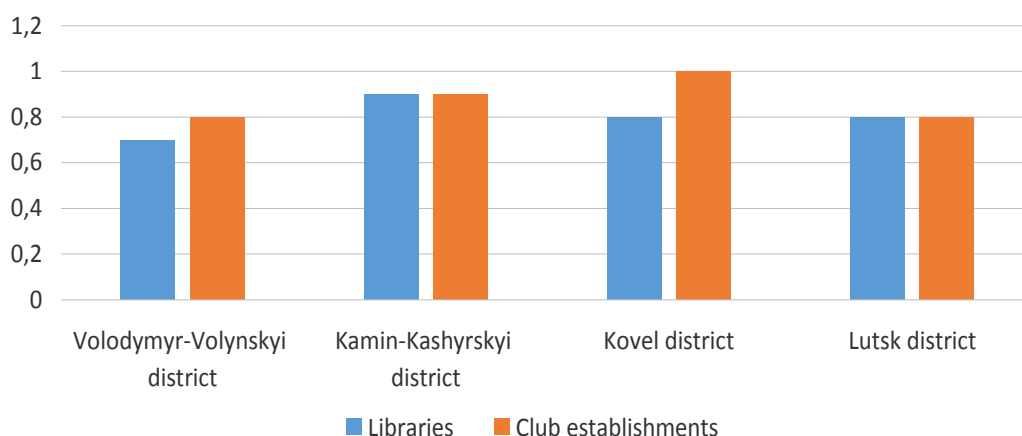


Fig. 13. Provision of administrative districts of Volyn region with libraries and clubs for 1,000 people
 Rys. 13. Liczba bibliotek i klubów przypadających na 1 000 mieszkańców w rejonach administracyjnych obwodu wołyńskiego

Рис. 13. Обеспеченность административных районов Воынской области библиотеками и клубными заведениями на 1 000 человек

Thus, culture implies the preservation of a single cultural space, must be accessible to all and interact with other sectors of public life. Intellectual development (intelligence from Latin – cognition, understanding, reason) depends on the level of education, science, computerization of the population, its mental health. Volyn region has a high level of educational infrastructure. The components of education are pre-school institutions, general secondary education institutions and higher education institutions. The main type of secondary education is a secondary school of three levels: the first – prima-

ry school, the second – primary school, which provides basic general secondary education, the third – high school, which provides complete general secondary education. There is a significant difference in the number of students between forest-steppe and Polissya districts. In Polissya districts the average population is 29,148 people, and in forest-steppe districts – 35,532 people. The largest number of students is in Lutsk (52,289 people), and the smallest is in Volodymyr-Volynskyi (19,647 people). This is 25% of the administrative districts of the region (fig. 14).

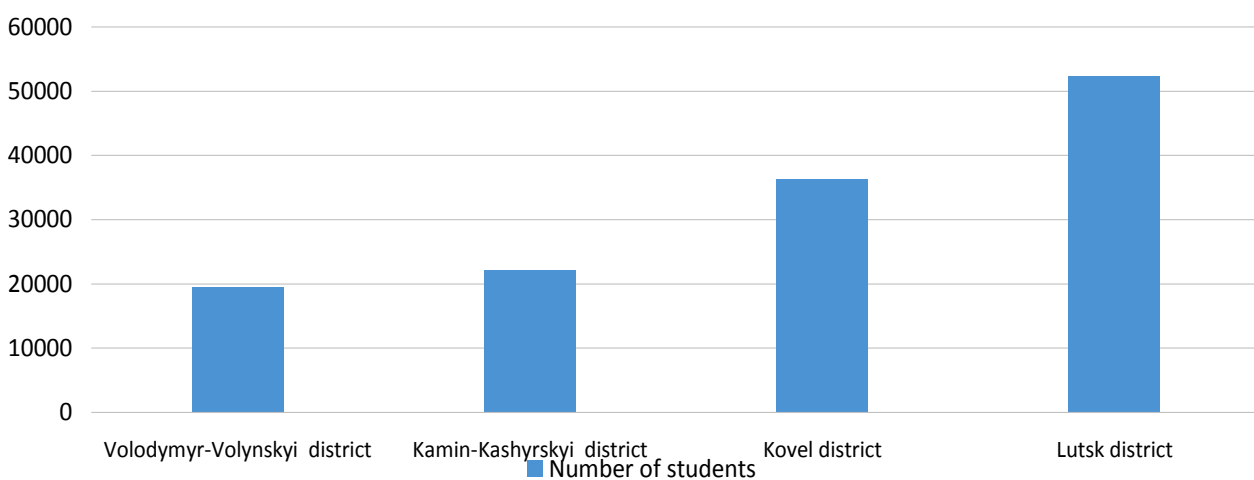


Fig. 14. The number of students in the administrative districts of Volyn region

Rys. 14. Liczba uczniów w rejonach administracyjnych obwodu wołyńskiego

Рис. 14. Численность учеников административных районов Волынской области

Registered unemployment rate on January 1, 2021 is 8.5% of the working age population. This figure was lower among women compared to men – 15.5% vs. 7.3%, as well as among residents of rural settlements compared to urban settlements – 12.9% vs. 10.2%. The share of the unemployed, the level of wages affect the plight of the population of the region. An important component of the unhappiness of the population is the level of crime. The main reasons for the increase in crime in the Volyn region are the war in the east, the socio-economic situation of the population, as well as the return of prisoners from prisons who were serving sentences for serious crimes for 10–15 years (БЕГУН, 2016). Approximately 70% of se-

rious and especially serious crimes, namely theft and robbery, in the Volyn region were committed by people who come most often from the East, people from Donetsk and Odessa regions, Kherson, Kharkiv, Vinnytsia, and Caucasians. The crime rate in the Volyn region is growing. It is estimated that in 2021 the number of crimes increased from 75.9 to 94.5 per ten thousand population. The share of particularly serious crimes in the Volyn region in 2021. is 1.7%, but in turn this figure is lower than the all-Ukrainian 3.1%. In 2015, 2,511 serious and especially serious crimes were registered in the region, and in 2021 the figure decreased to 1,848,000 serious crimes (fig. 15).

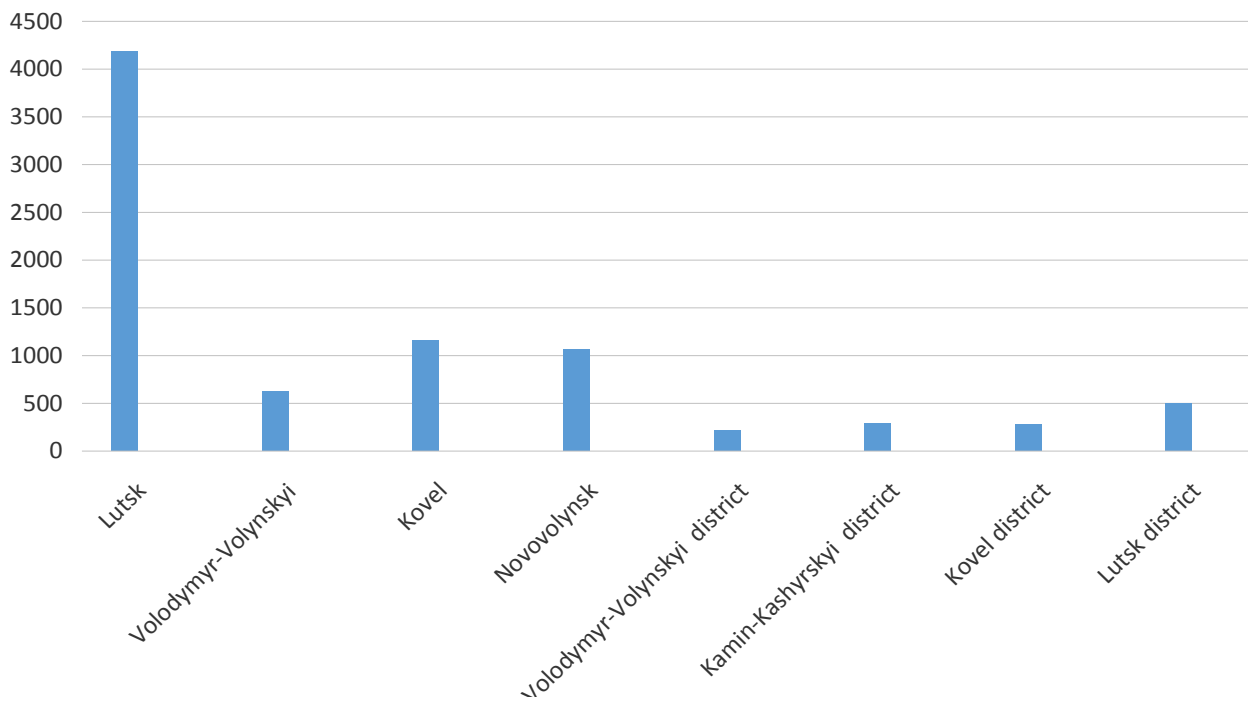


Fig. 15. Dynamics of crime in terms of cities and districts of Volyn region

Rys. 15. Przestępczość w miastach i rejonach obwołu wołyńskiego

Рис. 15. Динамика преступности в разрезе городов и районов Волинской области

In the total number of crimes, 67.5% were crimes against property, 10.1% – against life and health, 4.5% – against traffic safety and transport, 3.5% – against the authority of public authorities, bodies local self-government and associations of citizens, 2.2% – in the field of drugs, psychotropic substances, their analogues or precursors and other crimes against public health, 2.1% – in the field of official and professional activities, related to the provision of public services, 1.8% – against the environment and justice. The highest crime is observed in forest-steppe areas (within 500–1,000), in Polissya up to 500. As for some cities and districts of Volyn region, the city of Lutsk has the highest crime (up to 4,500).

Conclusions and prospects of further research

The majority of the population is concentrated in Polissya districts, but the population density predominates in forest-steppe districts. The capacity of Polissya districts is up to 20 hectares,

and forest-steppe 15–25 hectares. Production and economic factors and socio-demographic factors affect not only the capacity of the territory, but also the social well-being or well-being of the population. In terms of social welfare, the average salary in forest-steppe regions is higher (UAH 7,856) than in Polissya (UAH 6,495), but there is a difference in the development of culture and education. There are more students in forest-steppe districts than in Polissya districts, but there are more libraries and clubs in Polissya districts. In terms of social ills, forest-steppe areas are more prevalent. We see the prospect of further scientific and methodological research in the modification of educational programs, the use of appropriate equipment, additional resources, community involvement in the activities of educational institutions.

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