



Journal of Geology, Geography and Geoecology

Journal home page: geology-dnu.dp.ua

ISSN 2617-2909 (print)
ISSN 2617-2119 (online)

Journ. Geol. Geograph.
Geology,
30(4), 613–420.

doi: [10.15421/112156](https://doi.org/10.15421/112156)

Ataman L. V., Voyna I. M., Kirilyuk L. M., Chyzh O. P., Yatsentiuk Y. V.

Journ. Geol. Geograph. Geoecology, 30(4), 613–621

Socio-geographic analysis of the demographic situation in Vinnytsia Oblast: current condition and peculiarities of development

Lyudmila V. Ataman, Inna M. Voyna, Leonid M. Kirilyuk, Olga P. Chyzh, Yuriy V. Yatsentiuk

Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University, Vinnytsia, Ukraine, ataman2412@gmail.com

Received: 01.03.2021

Received in revised form: 18.04.2021

Accepted: 08.05.2021

Abstract. The article contains analysis of the current demographic situation in Vinnytsia Oblast. We determined causes and factors influencing the development of the demographic situation in Vinnytsia Oblast. The paper reveals the specifics of development of the demographic processes in Vinnytsia Oblast according to the data of the Main Statistic

Service in Vinnytsia Oblast for the period from 1959 to January 1, 2020. We determined how the totals of the urban and rural populations have changed. Based on the analysis of statistical and literature sources, we researched the specifics of natural movement of population, its sex and age structure, migration, distribution of the employed population and unemployment rate. We provide characteristics of specifics of the territorial differentiation of parameters of birth, death rates, natural increment (decline), migration, sex and age structure in Vinnytsia Oblast. We analyzed the specifics of employment of population in Vinnytsia Oblast, levels of economic activity and unemployment. We determined modern tendencies of natural movement of the population, its impact on the prospects of further changes. We found out the problems of current demographic development in Vinnytsia Oblast based on determining modern specifics of the demographic parameters of the population in the researched area. The paper suggests ways to improve the demographic situation in Vinnytsia Oblast in the immediate future. As a result of the research, the demographic situation in Vinnytsia oblast was found to be negative. We observed a number of negative tendencies and patterns, including decrease in the rural population; decrease in the birth rate in the period from 1995 to 2020; high death rates due to diseases of blood circulation and malignant tumors; high parameters of aging of the population, especially in rural areas; decrease in the number of the employable population in the Oblast, etc.

Keywords: demographic situation, Vinnytsia oblast, natural increment, migration, sex and age structure.

Суспільно-географічний аналіз демографічної ситуації у Вінницькій області: сучасний стан та особливості розвитку

Л.В. Атаман, І.М. Война, Л.М. Кирилюк, О.П. Чиж, Ю.В. Яцентюк

*Вінницький державний педагогічний університет імені Михайла Коцюбинського, м. Вінниця, Україна
ataman2412@gmail.com*

Анотація. У статті проаналізовано сучасну демографічну ситуацію у Вінницькій області. Визначено причини та чинники, що впливають на розвиток демографічної ситуації у Вінницькій області. Розкрито особливості розвитку демографічних процесів у Вінницькій області за даними Головного управління статистики у Вінницькій області, статистичних збірників України та результатів власних досліджень. Вивчено динаміку чисельності населення у Вінницькій області за період з 1959 року до 1 січня 2020 року. З'ясовано, як змінилась чисельність міського і сільського населення. На основі аналізу статистичних та літературних джерел досліджено особливості природного руху населення, його статеву-вікову структуру, міграції, розподіл зайнятого населення та рівень безробіття. Охарактеризовано особливості територіальної диференціації показників народжуваності, смертності, природного приросту (зменшення), міграцій, статеву-вікової структури у Вінницькій області. Розглянуто особливості зайнятості населення у Вінницькій області, рівня економічної активності та безробіття. Визначено сучасні тенденції природного руху населення, їх вплив на перспективи його подальших змін. З'ясовано проблеми сучасного демографічного розвитку Вінницької області на основі виявлення сучасних особливостей у демографічній ситуації, що склалися в області, для подальшого проведення дослідження за основними демографічними показниками населення досліджуваної території. Запропоновано шляхи покращення демографічної ситуації у Вінницькій області впродовж найближчого періоду. В результаті дослідження з'ясовано, що демографічна ситуація у Вінницькій області є негативною. Виявлено ряд негативних тенденцій та закономірностей, серед яких зменшення чисельності сільського населення; зниження показників народжуваності у період з 1995 по 2020 роки; високі показники смертності у зв'язку з хворобами системи кровообігу та злоякісними новоутвореннями; високі показники старіння населення, особливо у сільській місцевості; зменшення кількості осіб працездатного віку в області тощо.

Ключові слова: демографічна ситуація, Вінницька область, природний приріст, міграція, статевो-вікова структура.

Introduction.

Over the past decades, one of the most acute problems in Ukraine has been the demographic crisis, accompanied by decrease in birth rate and life expectancy of the population, increase in the death rate (first of all, among employable men), outflow migration of highly-qualified workers, mostly young, deterioration of the health of citizens, etc. The main parameters of the natural movement of the population, its sex and age structure, migration flows significantly influence the economic and political environments in Ukraine in general, and in regions. Therefore, research on the demographic specifics of some oblasts, particularly Vinnytsia Oblast, with the purpose of developing a strategy and effective implementation of regional demographic policies has become a priority.

Study of the demographic situation in Vinnytsia Oblast is especially important for rational use and recreation of the labour potential in the Oblast, regulation of migratory processes, stimulation of the birth rate and decreasing the death rate, increasing natural growth of the population and preventing depopulation, providing employment, reducing unemployment and improving the social security of the population.

Objective of the study was the analysis of demographic situation in Vinnytsia Oblast, characteristics of modern condition and assessment of the peculiarities of its development.

Materials and methods.

It is expedient to study the current condition and specifics of the development of demographic situation in Vinnytsia Oblast based on an algorithm comprising 4 stages: theoretic-methodological, analytical, stating and summarizing. At the first (theoretical-methodological) stage, one should analyze theoretical material, determine the object, subject and key notions of the research, substantiate the relevance and methods of the research, and also analyze sources (literature, statistical, normative-legal bases, etc). At this stage, it is useful to use such general scientific methods as comparisons and analogues, analysis and synthesis, deduction and induction, abstract-logical method, historical method, systematization, generalization, etc. At the second (analytical) stage, the main parameters (population, number of newborn, death rate, natural growth of population, net migration rate, division of the population by sex and age, etc) are determined and the primary data analysis is conducted and the main factors influencing them are identified. The main methods of the research at this stage are systemic analysis, statistical, comparative-geographic, grouping, ordering by type, dialectics, monitoring. The third (stating) stage involves analysis

of data of research, identification of socio-geographic specifics of demographic situation of the studied region, substantiation of results of the research. At this stage, it is best to use methods of the systematization and classification, graphic, comparative-geographic and comparative-historic methods. The fourth (summarizing) stage involves developing recommendations on management of demographic situation of the Oblast, identification of ways to improve it and formulation of the main conclusions of the research. It implies systematization, generalization methods, etc.

Results and discussion.

The demographic situation in Vinnytsia Oblast is determined by internal and external factors, including economic, social, psychological, ecological (low birth rate and high mortality; work migration; deterioration in age structure; marriage and divorce; revenue per family member; level of education among women and change in the social status of women; life conditions of the population and living conditions; aggravation of the problem of functioning of the family as a center of reproduction of the population, decrease in its demographic potential; employment-to-population, especially women's employment, i.e. increase in education and employment levels; ecological problems).

Birth rate and mortality are determined by a complex of social, economic, natural and other conditions, including level of income of the population, living conditions, ecological situation, working conditions, development of services, employment, etc (Zastaveccka, Zastavecckyj & Tkach, 2003).

Birth rates across Vinnytsia Oblast depend first of all on socio-economic factors. The main one is income per family member, level of women's education and living conditions. The unfavourable demographic situation in Vinnytsia Oblast and the drastic drop in the birth rate are related to exacerbation in the problems of family functioning, decrease in demographic potential. Employment of population significantly affects birth rate, especially women's employment. An important socio-economic factor is also the level of medical service.

One of the factors determining the number of the population and birth rate is nature-biological, which manifests in the ability of women and men to reproduce. In this context, in Vinnytsia Oblast, there is a high level of infertility, which is directly associated with low birth rates.

The demographic situation in Vinnytsia Oblast is characterized by a tendency toward a gradual steady decrease of population in most administrative districts. The decrease in the overall number of population in the

Oblast over the recent 10 years (2010–2020) is 6.37% (Fig. 1). Since 1959, the population in the Oblast is observed to have shown a continuous tendency toward decrease, especially in rural areas. Over the period from 1959 to 2019 (as of January 1 2020), Vinnytsia Oblast lost 587.2 thou people of its population. The declines in

urban and rural populations were not even. An especially significant decrease over the last 60 years occurred in the number of rural citizens (by 1,023.3 thou people). Thus, between 1970 and 1990, the population was decreasing by 10.0 thou people per year on average, and between 1990 and 2020 – by 13.0 thou people annually.

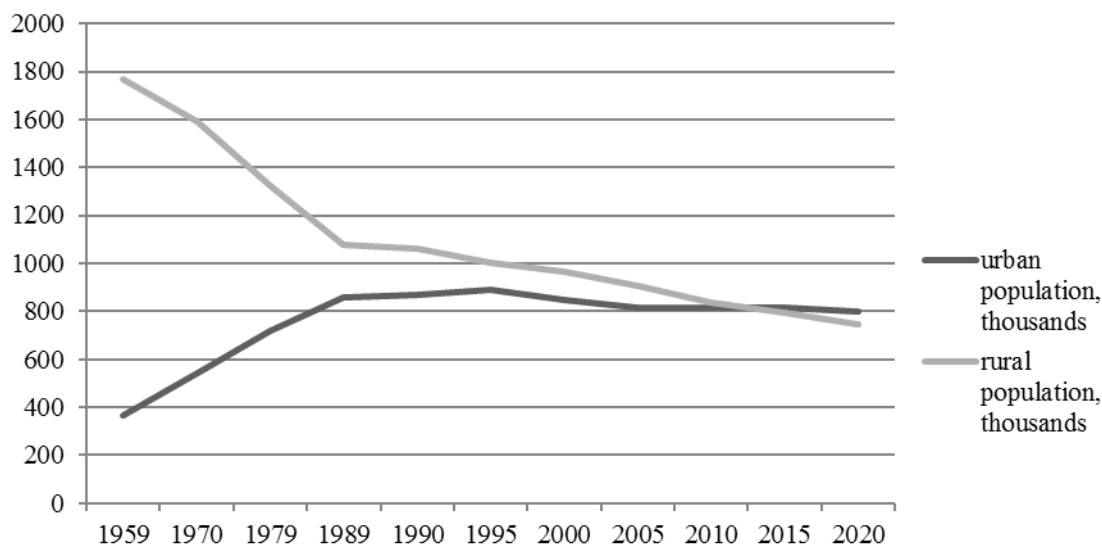


Fig. 1. Population Dynamics in Vinnytsia Oblast (1959–1 January, 2020.)

The population has decreased in the towns Zhmerinka, Koziatyni, Mohyliv-Podilsky, Khmilnyk, and also all the districts of the Oblast, except Vinnytsia district. The greatest decrease was in Zhmerynka, Bar, Nemyriv, Tulchyn, Bershad, Kalynivka, Sharhorod districts. Some of the main reasons are aging of the population and high death rate coefficient, and also the outflow of active employable population to cities (Statistical Yearbook, 2019).

The population across the Oblast has also declined as a result of migration processes, which exhibit a negative net migration rate. Particularly, during the period of 2014–2018, the population in the Oblast decreased by 42.5 thou people, including a 9.0 thou decrease in the urban population and 33.5 thou decline in the rural population.

According to the general parameters, the population in Vinnytsia Oblast is decreasing by 0.68% every year on average. The urban population is decreasing by 0.07% every year on average (data for the last 10 years), and rural – by 1.15% annually (data of the last 10 years), indicating significant loss of population in the Oblast's villages.

The population of Vinnytsia Oblast as of January 1, 2020 accounted for 1,545.4 thou people (ninth in Ukraine). In 2019, the population of the Oblast was 1,547.5 thou people, indicating a significant decrease over the year.

Negative demographic processes occurring over the recent years also manifest in unfavourable parameters

of demographic load on the employable population. Especially negative variables are seen among rural citizens (Zastavnyj, 1993). In the proportion of urban and rural populations in Vinnytsia Oblast as of 2015, the urban population prevailed. In 2020, 51.7% (799.4 thou people) of the population of Vinnytsia Oblast lived in cities and 48.3% in rural areas (746 thou people).

It should be noted that up to 1995, while the population in the Oblast in general was decreasing, the urban population was increasing. Overall, from 1970 to 1995, the urban population increased by 1.5 times. Nonetheless, since 1995 the urban population has also started to decrease.

In almost all districts of Vinnytsia Oblast, throughout this period, the urban population was decreasing, while its parameters somewhat grew in most administrative districts, except Vinnytsia, Sharhorod and Pishchanka districts.

The rural population dominates in the following districts: Vinnytsia (63.0 thou people), Sharhorod (48.4 thou people), Bershad (44.1 thou people), Kalynivka (37.7 thou people), Khmilnyk, Bar and Koziatyn districts. The only district in the Oblast where the urban population prevails over the rural population is Tyvriv, respectively 22.1 thou urban population and 18.8 thou rural population.

The districts with largest populations are as follows: Vinnytsia (81.3 thou people), Bershad (56.8 thou), Kalynivka (56.3 thou), Sharhorod (55.4 thou), Haisyn (55.3 thou), Tulchyn (53.4 thou), Bar (50.0 thou).

The least populated districts are Orativ (19.8 thou), Pishchanka (20.0 thou), Chechelnyk (21.1 thou) and Chernivtsi (20.2 thou) districts (Statistical Yearbook, 2019).

The Oblast is characterized by low density of population – around 60 thou/km² of the territory. The highest density of population is in Vinnytsky district – 90 thou/km², which is related to closeness to the Oblast administrative center. Parameters of density are also high in Bar, Haisyn, Kalynivka, Tyvriv, Tulchyn, Sharhorod and Yampil districts (50 thou/km²). The lowest densities of population are in the peripheral districts – Orativ and Pohrebyshche (20 thou/km²).

One of the main parameters of the demographic situation in the region is the birth rate, which in the demographic context is the process of giving birth among people that comprise a generation, or among the totality of the generations – population (Prybytkova, 2002). The simplest parameter of birth rate is the total fertility rate which indicates the average number of newborns per 1,000 people of the entire population of a certain territory (Gudzelyak, 2008). Total fertility rate indicates how many children may be born on average from one woman in the conditions of a certain intensity of fertility over life and the condition that her childbearing period would be lived through in comfort (Stecenko, 2005).

Vinnytsia Oblast has low birth rates, high mortality rates (especially among employable men) and negative natural growth (natural decline). In general, natural movement of the population within the Oblast has internal differences. The birth rate varies 9.4 ‰ (Pohrebyshche and Chernivtsi districts) to 13.0 ‰ (Tyvriv and Vinnytsia districts). Among cities of Vinnytsia Oblast, the highest birth rates are in Zhmerynka and Koziatyn. It has to be noted that

reflection of differentiation of the parameters of birth rate is significantly affected by historical-political events that took place in the country and their socio-economic consequences (Nyemecz L., Segida & Nyemecz K., 2012).

Another important variable of demographic situation is mortality. It is measured by ratio of the number of deaths to the number of the entire population or its certain groups differentiated by sex, age, social status, territory (Prybytkova, 2002). Death rates are observed to have sharp fluctuations, particularly the lowest values are in Vinnytsia district (around 9 ‰), and the highest in Pohrebyshche district (almost 21 ‰). High mortality among the population is also observed in Orativ, Zhmerynka, Chechelnyk districts. In general, mortality in the Oblast is 80 % higher in rural areas than in cities.

All districts of the Oblast, including Zhmerynka, Koziatyn, Ladyzhyn and Khmilnyk, have negative increment of population. Lowest natural increments (decline) of population are in Vinnytsia and Kalynivka districts, the highest being in Pohrebyshche, Orativ, Murovani Kurylivtsi and Chernivtsi districts (Statistical Yearbook, 2019). In terms of natural decline in rural population, the Oblast is the first among the oblasts of Ukraine. Such a situation is not favourable for job offers, especially in rural areas.

Natural movement of the population of Vinnytsia Oblast is the main factor of the decline in the Oblast population. For the studied period, decrease has been recorded in the number of newborns in the region – from 19,987 people in 1995 to 11,878 people in 2019. In total, indicators of births and deaths have decreased all across the Oblast.

Furthermore, the Oblast is observed to have a negative tendency in differences in depopulation

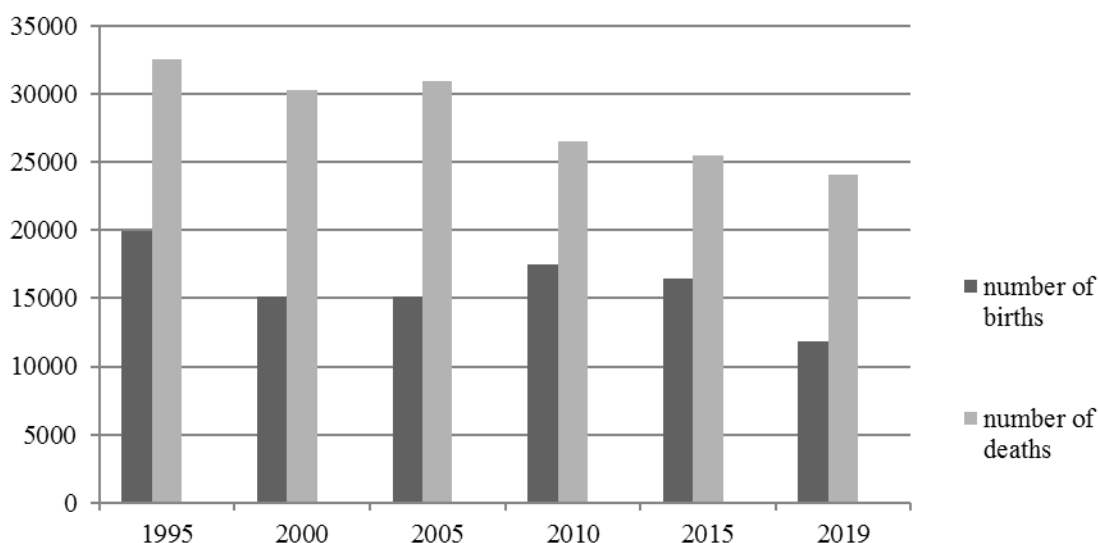


Fig. 2. Numbers of newborns and deaths (1995–2019)

processes among populations of urban and rural areas. Mortality in villages remains significantly higher than in urban settlements.

The main factor of population loss in 2019 (as of January 1, 2020), as in the previous years, was natural decline resulting from a death rate that exceeds the number of newborns (–11,572 people). Compared with 2010, the natural decline of population increased by 1.9%.

The greatest natural decrease was observed in Khmilnyk district, and the lowest in Mohyliv-Podilskyi. In Vinnytsia, the natural increment was the highest – 0.4 people per 1,000 existing population.

Among the causes of death among the population, the number one cause comprises diseases of blood circulation (72.9% of the total number of diseased), the second one – tumors (12.7%), third – external causes of death (about 5%). In the previous 10 years, the rate of death from disorders of blood circulating systems among the Oblast population has somewhat decreased.

The population of Vinnytsia Oblast is influenced to a large degree by migration processes occurring in

its territory. Since 1995, the net migration rate in the Oblast has been negative. The statistics section contains the data for 10 months (January–October) of 2019, migration-caused decrease accounted for 2,623 people. For the previous year – 2018, there are more detailed data, particularly changing residence registration, indicating that 22,387 people came to the Oblast that year, while 26,229 people left. As of 2018, migration also decreased, equaling 3,842 people.

Therefore, since 1995, Vinnytsia Oblast has been characterized by a negative net migration rate. Nonetheless, over the period of 2009–2015, the number of migrating population significantly decreased. For several consecutive years (2014, 2015), the net migration rate was positive. Most of relocations were made within the Oblast and between regions of Ukraine. However, since 2018, the rates of migrating population were quite high, leading to negative net migration rate in Vinnytsia Oblast (from –2,505 to –3,842 people every year).

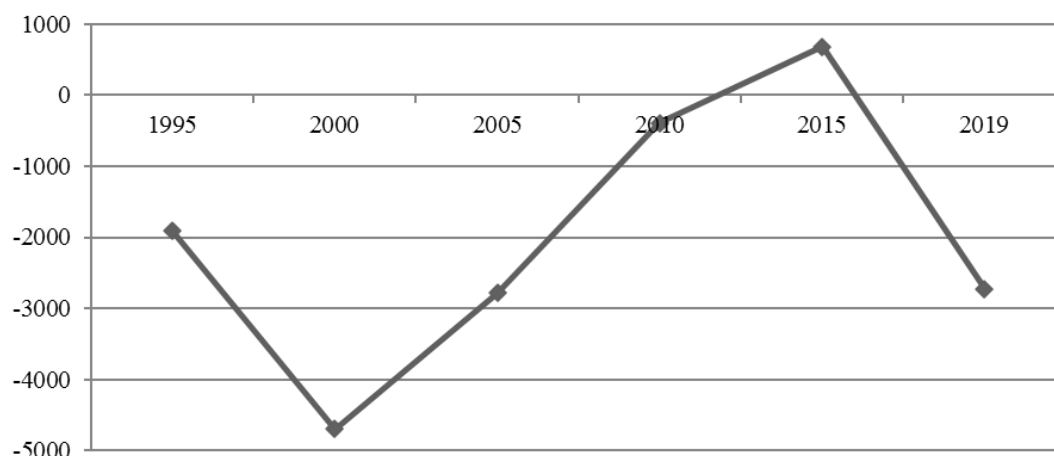


Fig. 3. Migration increment (decline) in Vinnytsia Oblast (1995–2019)

In general, the Oblast is experiencing a migration-caused decrease in population, though some districts and cities are observed to have a positive net migration rate – Vinnytsia (1,397 people), Zhmerynka (85 people), Vinnytsia district (747 people), Haisyn district (38 people).

The number of incoming people was the highest in city of Vinnytsia (7,206 people), Vinnytsia district (1,836), Haisyn (1,061 people), Kalynivka (700 people), Bershad (598 people) districts. The lowest number of people arrived in Orativ (134 people), Chernivtsi (137 people), Chechelnyk (170 people) districts. The numbers of incoming people are highest in the city of Vinnytsia, and Vinnytsia, Haisyn, Kalynivka, Bar, Tulchyn districts.

As for the net international migration, it was positive in the cities of Vinnytsia and Khmilnyk, and in districts

of the Oblast with a sufficiently high level of economic development – Vinnytsia, Kalynivka, Koziatyn, Nemyriv and Tulchyn districts. The remaining towns and districts of the Oblast had a negative net migration rate for the last five years, especially in poorly developed periphery districts – Murovani Kurylivtsi, Bershad, Orativ and Teplyk. The most powerful migration flows between the neighboring oblasts are in Kyiv, Odesa, Khmelnytsk, Zhytomyr, Cherkasy Oblasts. This has negative effects on the development of the labour market in the Oblast.

Sex composition of the population of Vinnytsia Oblast is characterized by continuous excess of women over the number of men. The same tendency persists in Ukraine in general. Since 1995, there has been observed a tendency toward decrease in the number of both men and women (Fig. 4).

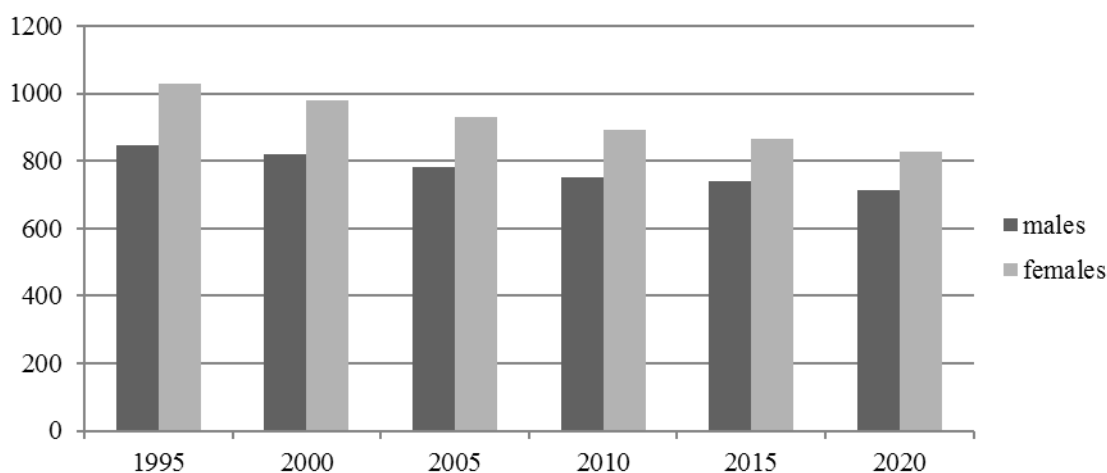


Fig. 4. Population Dynamics by Gender, thou people (1995–1 January, 2020)

In general, over the period between 1995 and 2020, the number of women decreased by 202.4 thou, and men by 134.9. This indicates a significant decrease in female population, which may be associated with high disproportion in 1995. As of now, this situation has significantly decreased and the difference between women and men is 112.9 thou people, suggesting an increase in the male population in the Oblast.

As of January 1, 2020, women account for 53.7% of the Oblast population, and men make up 46.3% (by the way, the same proportion was in 2018). In the Oblast, the population aged over 60 equals 23.6%, including 35.6% men and 64.4% women. Women do not prevail in all age groups, specifically, in the age group of 0–34 the number of males exceeds the number of females, but begins to decrease in the 35–39 age group. In the

65–69 age group, the share of men is 39.4%, while women significantly prevailed, accounting for 60.6%. The number of men decreases with age, as indicated in the data that women comprise 70% in the group of 70 and older.

There is also another tendency in settlements of Vinnytsia Oblast which is that the number of men is becoming lower than that of women starting from the age of 25 and 35 in rural areas. In the group of 70 years and older, women make up 67.3% in urban settlements, 71.3% in rural settlements, which indicates significant decrease in the number of men in the age group of 60 and older in rural areas.

Vinnytsia Oblast is characterized by the unfavourable age structure of the population. It belongs to oblasts with high share of 60+ age population. A negative tendency is also the decrease in the share of children in the overall population along with significant increase in share of people above the employable age.

Therefore, we may state that the age structure of the population in the Oblast has developed having a high specific share of older people and low number of young people, and which is leading to further aging of the population. In Vinnytsia Oblast, the regressive type of reproduction of population remains, as well as high rate of demographic aging (share of people older than 60 years is 23.9%). Furthermore, population older than 60 is observed to have progressive chronic illnesses, malignant tumors, endocrine diseases, etc, which promotes the decline of the population of the Oblast.

Demographic load is a generalized quantitative characteristic of age structure of the population which indicates the load of unproductive population on the society and is determined by various ratios of number of generalized age groups: children, senior citizens

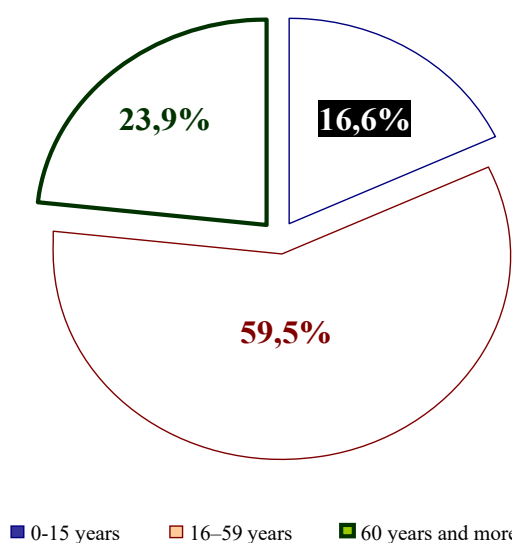


Fig. 5. Age composition of the population of Vinnytsia Oblast in 2019

and those of employable age (Prybytkova, 2002). Demographic load on people of socially active age in Vinnytsia Oblast is characterized by a high level. In 2019, there were 234 people aged 0–15 years and 262 people aged 65 years and older per 1,000 people aged 16–64 years. In rural areas, these parameters were higher (235 and 321 people) than in urban settlements (233 and 208 people). Compared to 2014, the total coefficient of demographic load per 1,000 people aged 16–64 years increased from 470 to 496 people (Distribution of permanent population, 2020).

Significant change occurred in the sex and age structure of the population in the period from 1989 to 2020. At the same time, it should be noted that the share of employable population is increasing (1989–52.5%, in 1999–54.4%, and in 2020–59.5). This indicates positive tendency of development of job vacancies in the Oblast.

As for the number of pre-employable, employable and retired citizens, the following tendencies take place: the share of population of pre-employable age in the Oblast on average equals 16.6%, though it significantly fluctuates territorially, particularly Mohyliv-Podilskyi district – 12.8%, and Sharhorod district – 17.4%.

The largest share of employable population is in the cities of Vinnytsia and Mohyliv-Podilskyi, and Vinnytsia district. The rate of employable population in the rest of the districts is below the average, especially in Chernivtsi, Orativ, Pohrebyshche, which negatively affects the functioning of the labour market. The share of retirement-age population is higher than the average in the rural areas in villages of Chernivtsi, Pohrebyshche, Orativ, Murovani Kurylivtsi districts, which is determined by peripheral location and low socio-economic development of the districts.

As of January 1, 2020, the mean age of women and men has undergone no significant changes over the previous years and relative to type of settlement. However, mean life expectancy according to sex has increased. The difference in the average life expectancy is classic for Ukraine, equaling around 10 years (in cities and villages) and as of January 1, 2020 was 67.75 years for men and 77.47 years for women. In previous year of 2019, it was 67.58 years for men and 77.69 years for women. Overall, over the period between 1995 to 2020, the average life expectancy in the Oblast has increased by 5 years. In cities, women and men live longer: men by 3 and women by almost 2 years.

The level of economic activity is higher among men, equaling 67.5%, while being 56.8% among women. The economically active 15–70 year-old population of Vinnytsia Oblast in 2018 was 724.3 thou people, including 652.7 thou people – or 90.1% – who were engaged in economic activity. The level of economic activity of the population aged 15–70 years during the years 2014–2018 increased from 62.9% in 2014 to

63.0% in 2018, which is higher than the average level in Ukraine (62.6%) (Regions of Ukraine, 2019).

Distribution of employed population aged 15–70 according to types of economic activity has the following structure: agriculture, forestry and fisheries at the first place, wholesale and retail trade, vehicle repair at the second place, and industry at the third (Regions of Ukraine, 2019).

The number of unemployed people aged 15 and over is 68.7 thou (9.4%) and people aged 15–70 years – 68.7 thou people (9.4%). In 2018, unemployment was 9.9%; in 2017–10.7%, indicating a positive tendency toward decrease in unemployment in Vinnytsia Oblast. The percentages of unemployed women and men are almost the same, equaling about 10%. However, in 2014, unemployment was 4% higher among men (8.6% among women; 12.2% among men). The highest unemployment rate among women is in the age group of 15–24 years (around 17%) and the age group of 25–29 years (around 16%). Unemployment rates in the age group of 30–34 years are almost the same for both men and women (around 12%). In general, unemployment (according to methodology of ILO) in percentage of economically active population aged 15–70 years tends to decrease (by almost 1%).

The current demographic situation affects the development of the labour potential of the Oblast and territorial concentration of employable population in cities and districts of the Oblast. Territorial concentration of employable population is the greatest in cities of Vinnytsia and Ladyzhyn, and also in districts of Vinnytsia, Mohyliv-Podilskyi, Trostianets and Zhmerynka. These are the districts where the level of economic development is high.

Taking into account the aforesaid, we should note that the labour force should be involved more actively through commuting, development of productive and market infrastructures and social sphere, stimulation of the development of professional and technical education, etc.

The population of Vinnytsia Oblast is characterized by the same negative processes and problems which are relevant for most of other Oblasts of Ukraine, though in some aspects there is a certain regional specific. One of the distinctive tendencies of development of the demographic situation in Vinnytsia Oblast is the prevalence of women over men in all age groups and especially the elderly group where the number of women is significantly higher than men. One of such negative tendencies of contemporary demographic processes is aging of the population caused by decline in the birth rate and decrease in the number of children, which is especially noticeable in rural areas.

The main measures that need to be taken in Vinnytsia Oblast to improve demographic situation and development of positive demographic processes are:

- Improvement of the medical service and social protection of the population, especially in rural areas. This would be achieved due to the fact that, apart from unique natural-recreation resources (sources of mineral water and clay), the Oblast has an advanced network of sanatoriums and resorts, recreation facilities, tertiary care institutions and an advanced scientific-medical education institution – National Pirogov Memorial Medical University, Vinnytsya. An important element of the system of high-quality and available medical service in Vinnytsia Oblast is the development of the emergency system that must be available to both urban and rural populations, including those living in the remotest communities (Strategiya zbalansovanogo regionalnogo rozvytku, 2020);

- Decrease in the unemployment rate and regulation of migration outflow of the population from the Oblast by organizing effective employment of the population and increase in salaries. Over the recent years, large-scale projects of developing modern infrastructure have been implemented in the Oblast – elevators, fruit and vegetable storage facilities, staging posts, etc. In Vinnytsia Oblast, there has already been developed a powerful sector of enterprises in the spheres of producing and processing agricultural goods which have a sufficient level of financial and institutional capacities for implementing investment projects and training specialists (Strategiya zbalansovanogo regionalnogo rozvytku, 2020);

- Increase in the birth rate due to active governmental and regional demographic policies;

- development of social infrastructure. Therefore, in Vinnytsia Oblast, the infrastructure of providing various social services to the population continues to develop, for example: in the system of social protection of the population, there are operating 36 territorial centers of social services (provision of social services), 26 district centers of social services for families, children, youth, etc.

Conclusions.

The results of the analysis of demographic situation in Vinnytsia Oblast indicate the need to develop a program of development and management of reproduction of the population as a result of an active demographic policy. The overall parameters indicate that demographics in Vinnytsia Oblast are negative. The research revealed a number of tendencies and patterns of change in the numbers of both urban and rural populations. Birth rates have significantly decreased compared with 1995. In the region, a high death rate has been observed, though over the recent 25 years the annual number of deaths has been much lower. The main causes of death among the population of Vinnytsia Oblast are diseases of system of blood circulation, malignant tumors and external impact.

The demographic situation in the Oblast is characterized by high parameters of aging of the population, especially in rural areas and also decrease in the number of employable people in the Oblast (share of people older than 60 is 23.9%). Mechanical movement of the population in Vinnytsia Oblast is first of all determined by economic factors, and the net migration rate in the Oblast for the analyzed period from 1995 to 2019 was negative.

The analysis of the sex and age structure of the population in Vinnytsia Oblast indicates a regressive type of reproduction of population, high degree of aging, which negatively affect the processes of reproduction of the Oblast's population in general. Therefore, the demographic situation that has developed in Vinnytsia Oblast is unfavourable for development of the labour market. Nonetheless, over the recent years, there has been seen a tendency toward decrease in unemployment in the region. Districts of Vinnytsia Oblast which have low population increment need measures that would improve socio-economic conditions, promote development of entrepreneurship and create new jobs. The Oblast needs active demographic policy, development of social infrastructure and improvement of healthcare.

References

- Dzhaman, V. O., Krul, V. P., Chernyux, G. Ya., 2002. Demogeografiya: Navchalnyj posibnyk [Demogeography: Textbook]. Chernivtsi: Ruta. 159 (In Ukrainian).
- Gudzelyak, I. I., 2008. Geografiya naselennya: Navchalnyj posibnyk [Geography of the population: Textbook]. Lviv: Publishing Center of Ivan Franko Lviv National University. 232 (In Ukrainian).
- Nyemecz, L. M., Segida, K. Yu., Nyemecz, K. A., 2012. Demografichnyj rozvytok Xarkivskogo regionu: monografiya [Demographic development of Kharkiv region]. Kharkiv: KhNU. 200 (In Ukrainian).
- Prybytkova, I., 2002. Demografichna sytuaciya v Ukrayini u dzerkali Vseukrayinskogo perepysu naselennya 2001 roku [Demographic situation in Ukraine in the mirror of the All-Ukrainian census of 2001]. Sociology: theory, methods, marketing, 3, 133–142 (In Ukrainian).
- Shabliij, O. I., 2003. Osnovy zagalnoyi suspilnoyi geografiyi: Pidruchnyk [Fundamentals of general social geography]. Lviv: LNU. 444 (In Ukrainian).

- Statystychnyj shhorichnyk Vinnytskoyi oblasti za 2019 rik., 2019. [Statistical Yearbook of Vinnytsia region for 2019]. Vinnytsia: Main Department of Statistics in Vinnytsia Region. Retrieved from: <https://www.vn.ukrstat.gov.ua/index.php/statistical-information.html> (In Ukrainian).
- Statystychnyj zbirnyk «Chyselnist nayavnogo naselennya Ukrayiny na 1 sichnya 2020 roku», 2020. [Statistical collection «The number of the current population of Ukraine on January 1, 2020»]. Kyiv (In Ukrainian).
- Statystychnyj zbirnyk «Regiony Ukrayiny 2019», 2019. [Statistical collection «Regions of Ukraine 2019»]. Kyiv (In Ukrainian).
- Statystychnyj zbirnyk «Rozpodil postijnogo naselennya za statyu ta vikom na 1 sichnya 2020 roku», 2020. [Statistical collection «Distribution of permanent population by sex and age on January 1, 2020»]. Kyiv (In Ukrainian).
- Stecenko, S. G., 2005. Demografichna statystyka: Pidruchnyk [Demographic statistics]. Kyiv: High school. 415 (In Ukrainian).
- Strategiya zbalansovanogo regionalnogo rozvytku Vinnytskoyi oblasti na period do 2027 roku. Vinnytsya., 2020. [Strategy of balanced regional development of Vinnytsia region for the period up to 2027] Retrieved from: <https://vinrada.gov.ua/proekt-strategii-2027.htm> (In Ukrainian).
- Yavorska, V. V., 2013. Regionalni geodemografichni procesy v Ukrayini: monografiya [Regional geodemographic processes in Ukraine]. Kamyanets-Podilsky: Axiom. 384 (In Ukrainian).
- Zastaveccka, O. V., Zastavecckyj, B. I., Tkach, D. V., 2003. Geografiya naselennya Ukrayiny. [Geography of the population of Ukraine]. Ternopil. 149 (In Ukrainian).
- Zastavnyj, F. D., 1993. Naselennya Ukrayiny. [The population of Ukraine]. Lviv: Krai, Prosvita. 348 (In Ukrainian).