SOCIAL INFRASTRUCTURE OF CHERNIVTSI OBLAST: SOCIO-GEOGRAPHICAL ASSESSMENT

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Abstract
The article considers the main approaches to defining the essence of the concept of "social infrastructure", offers its own interpretation of the term, highlights the components of social infrastructure. The main indicators and trends of its industries for the period 2008-2020 are analyzed and a general description of the state of these industries in 2020 is given. Territorial differences in the development and functioning of social infrastructure in the context of cities of regional significance and raions of Chernivtsi oblast.
Key words: social infrastructure; social sphere; branches of social infrastructure; social and household complex; health care; tourism and recreation; education, culture.

INTRODUCTION. Today, the proper development of social infrastructure is a necessary condition for optimizing social development and effective human activity in various spheres of life. Social infrastructure promotes comprehensive personal development, creates optimal housing and communal and living conditions, meets human needs in goods and services, guarantees social protection of all groups, creates conditions for recreational activities, reproduction of labor, promotes the rational use of people’s free time, improving the way life, longevity and maintaining the health of the population. Among the important tasks of social infrastructure is the education of the younger generation and raising the cultural level of the population, which is a necessary condition for the formation of intellectual and spiritual potential of society.

FORMULATION OF THE PROBLEM. Social infrastructure is studied by many scientists from different fields. In this regard, there are different approaches to the interpretation of this concept and the allocation of its components. In scientific works you can find the terms "social sphere", "sphere of services" and others, which are essentially similar or even identical to the concept of "social infrastructure". Scholars' views on social infrastructure may differ significantly, but almost all emphasize its importance for people in particular and society in general. Research of the current state, peculiarities of functioning and dynamics of social infrastructure of Chernivtsi oblast is necessary to ensure its comprehensive and proportional
development and optimization of territorial organization, which increases the relevance and practical significance of research.

**Analysis of previous research.** The following scientists made a significant contribution to the study of issues related to various aspects of social infrastructure: Vitrenko N.M., Danylyshyn B.M., Kinash I.P., Kobylin P.O., Kutsenko V.I., Lukyanova N.G., Osadcha G.I., Pigul N.G., Randalov Y.B., Saenko Y.I., Toshchenko J.T., Yagodka A.G. and others. Their works consider the specifics of the functioning of social infrastructure, ways and means of improving it, provide various methods for determining the level of development of social infrastructure in the region, explore the field of services and more. The works of Barkova G.A., Bordun O.Y., Didenko K.D., Zayachuk O.G., Martusenko I.V., Matsyakha M.M., Moshtakova N.V., Podvirna Kh.Y., Rudakevich I.R., Flint N.I. and others are devoted to separate branches of social infrastructure. However, the issues of functioning and development of social infrastructure of Chernivtsi oblast are poorly developed. A characteristic feature of most works is that they deal mostly with one element of social infrastructure, and its dynamics are often overlooked. Under such conditions, there is a need for a comprehensive study.

**The aim of the study** is to determine the essence of the concept of "social infrastructure" and highlight its components, analysis of key indicators and trends in social infrastructure of Chernivtsi oblast, identify territorial differences in the development and functioning of the studied industries in terms of towns of oblast significance and raions.

**Presenting main material.** At the beginning of our study, it is important to define the essence of the concept of "social infrastructure". Today, positions on the interpretation of this term often differ and depend mainly on the specifics of scientific research and the field of activity of the scientist. Not the least role is played by the prevailing system of ideas, views, beliefs and values in society. For example, in the 1970s, Soviet scholars viewed social infrastructure largely as a material base whose function was to create conditions for the employed population in production. In this interpretation, the social infrastructure was purely economic in nature and focused on production. With the transition from an industrial to a spiritual-information society, views have shifted towards a person, and the main function of social infrastructure was already seen in providing proper living conditions for the population and meeting its needs. Recently, in connection with the trends of humanization of public life, the importance of social infrastructure in the development of a person as a fully developed individual, which in turn is a necessary condition for the realization of social potential.
The essence of this concept can be reduced to two main positions. From the point of view of the first of them, social infrastructure is considered as a set of industries, identifying it with the service sector. This opinion is shared, for example, by Krush P.V. and Kozhemyachenko O.O., noting that "social infrastructure is a set, or complex, of industries, the purpose of which in the social division of labor is to meet the needs of the population in social and household and social spiritual services" [1, p. 198]. The second position is that social infrastructure is understood as a set of material objects that create conditions to meet human needs, as well as its effective activities. The definition of social infrastructure from this position is given in the "Economic Encyclopedia" edited by Gavrylyshyn B.D., which states that "social infrastructure – a set of objects (enterprises, institutions, organizations and facilities) that provide conditions for social production and life of population, the formation of physically and intellectually developed, socially active individual" [2, p. 704]. It should be noted that there are other positions on the interpretation of this concept. For example, Kobylin P.O. in terms of the function of social infrastructure identifies four approaches to understanding its essence [3, p. 140]. In our opinion, industries that meet the needs of the population in services and create favorable conditions for human life and social potential, as well as material objects (institutions, establishments, organizations, enterprises, etc.) that ensure the functioning of these industries should be considered as interdependent and mutually contingent components of a holistic system – social infrastructure.

Just as there is no single common definition of social infrastructure, there is no single universal point of view on the allocation of its components. The most popular is the sectoral approach, but the views of scientists on the allocation of certain elements of social infrastructure often differ. It is worth noting the classifications made by such authors as: Pigul N.G., who divides the components of social infrastructure into two blocks according to their significance and role, which in turn are divided into smaller subsystems [4, p. 121] and Kinash I.P., who identifies six components of social infrastructure: social and household, social and recreational, educational and spiritual, socio-political, communication, socio-economic [5, p.175].

In general, the following complexes of social infrastructure can be distinguished: social and household, cultural and educational, health care and social protection, tourism and recreation. The social and household complex includes the following areas: housing and communal services, consumer services, trade and catering, passenger transport and communications. Education and culture form a cultural and educational complex of social infrastructure (Fig. 1). The social and household complex and the complex of health care and
social protection are aimed at creating appropriate conditions for human life, restoring its physical properties and meeting the needs of a person as a biological being. Tourist-recreational and cultural-educational complexes contribute to the reproduction of spiritual, intellectual and to some extent physical properties of the individual, forming him as a fully developed and socially active person who meets the general requirements of society. In addition to sectoral complexes, it is also necessary to identify another component of social infrastructure – the material base, without which it is impossible to perform its functions.

![Diagram of Social Infrastructure](composed by the author)

Important indicators that characterize the development of housing and communal services are the total area of housing and housing provision. During 2008–2020 in Chernivtsi oblast there was a tendency to increase the total area of housing and increase the provision level of housing. The total area of housing stock in 2008–2020 increased 1.12 times and as of
2020 amounted to about 22.4 million m². The provision of housing for the population during this period also increased by 1.12 times and on average per capita in 2020 accounted for about 24.8 m² of total housing.

The population of Kitsman, Kelmentsi and Zastavna raions is the most provided with housing, with an average of more than 28 m² of total housing area per person. The lowest rates of housing are in Chernivtsi, Novodnistrovsk and Putyla raion. Kitsman, Khotyn and Zastavna raions were the most provided with housing for the urban population. In rural areas, the residents of Kelmentsi, Kitsman and Zastavna raions are the most provided with housing, with an average of 29.2 to 30.4 m² of total area per person.

Wholesale turnover of wholesale trade enterprises of Chernivtsi oblast in 2020 amounted to UAH 5,106.7 million; retail trade turnover amounted to UAH 13,553.5 million, including retail trade turnover of UAH 7,194.0 million. During the period 2008–2020, the wholesale turnover of wholesale trade enterprises increased 1.5 times. Starting from January 2020, the retail trade turnover is calculated in accordance with the Methodology for calculating the retail trade turnover taking into account the activities of physical persons-entrepreneurs, approved by the order of the State Statistics Committee of 04.04.2016 № 53 [6]. Therefore, a direct comparison of data for 2020 with similar data from previous years is incorrect. In 2020, the highest retail turnover was characteristic for the city of Chernivtsi, where this figure amounted to UAH 5,552.5 million – 77.2% of the total retail turnover of retail trade enterprises in Chernivtsi oblast. High indicators of retail trade turnover are in Hlyboka and Novoselytsia raions – UAH 313.8 and 312.9 million, respectively. In Khotyn, Sokyryany, Vyzhnytsia, Kitsman and Storozhynets raions the values of this indicator range from UAH 140.9-192.5 million. For Hertsa, Zastavna, Kelmentsi raions and the city of Novodnistrovsk these values range from UAH 31.8 to 53.0 million. The lowest retail trade turnover in Putyla raion is UAH 9.7 million.

At the end of 2020, the retail network was represented by 504 stores (101,417 m² of retail space), of which 121 were in rural areas, and 117 semi-stationary retail outlets (kiosks, gas stations), of which 52 were in rural areas. There were 1,119 m² of retail space per 10,000 population. At the end of 2020 in Chernivtsi oblast there were 205 grocery stores with a total retail area of 34,682 m², of which 136 – with a universal range of goods (32,235 m²), 69 – specialty grocery stores (2,447 m²), and 299 non-food stores with a total retail area of 66,735 m², 7 of them – with a universal range of goods (1124 m²), 292 – specialized non-food stores (65611 m²). Of the 117 semi-stationary outlets – 6 kiosks and 111 petrol stations, including automotive gas-filling compressor stations. The largest number of retail outlets is in
Chernivtsi – 309 units, of which 278 – shops with a total retail area of 89.8 thousand m². Among the raions, the largest retail network of retail trade enterprises is in Storozhynets – 47 retail outlets (38 stores with a total retail area of 2.1 thousand m²), Hlyboka – 42 facilities (29 stores, 1.9 thousand m²), Novoselytsia – 42 objects (26 shops, 1.3 thousand m²) and Kitsman – 40 objects (30 shops, 1.2 thousand m²). In Sokyryany, Khotyn and Vyzhnytsia raions, the number of retail outlets ranges from 29 to 34 units. There are significantly fewer of them in the raions: Kelmenetsi – 12 (6 shops, 0.3 thousand m²) and Zastavna – 11 (7 shops, 0.2 thousand m²), in Novodnistrovsk such objects 10 (8 shops, 0.4 thousand m²), and in Hertsa and Putyla raions in general less than 10 – 6 (3 stores, 0.1 thousand m²) and 7 (7 stores, 0.3 thousand m²), respectively.

In 2020, 60.7 million passengers were transported by public transport, and the passenger turnover amounted to 878.9 million pas. km. 0.9 million passengers were transported by rail (0.2 million – direct, 0.2 million – local, 0.5 million – suburban), road (bus) – 34.0 million passengers (22.7 million – intercity, 8.7 million – suburban, 2.6 – long-distance, and to a lesser extent – international traffic), data on the number of passengers transported by trolleybus and air transport were not published to ensure compliance with the Law of Ukraine "On State Statistics" on confidentiality of statistical information. Passenger turnover of road (bus) transport amounted to 733.3 million pas. km. The density of the operational length of railways in 2020 was 51 km per 1 thousand km² of territory, the density of paved roads – 356 km per 1 thousand km². The intensity of passenger traffic on paved roads is 0.3 million. km per 1 km of road length, the average distance of one passenger by road (bus) – 22 km.

The volume of services provided to the population in the field of telecommunications and postal services in 2020 in actual prices including VAT amounted to UAH 616,608.2 thousand, including postal and courier activities – UAH 28,970.2 thousand, fixed telephone connection – UAH 69676.9 thousand (of which urban – UAH 29634.4 thousand), mobile (mobile) – UAH 413144.1 thousand, broadcasting, retransmission of TV and radio programs, maintenance and operation of equipment in broadcasting networks, radio communication – 6651.3 thousand UAH (of which cable television – 6082.4 thousand UAH), Internet services – 84935.1 thousand UAH (of which with the provision of fixed (wired) broadband access – 82284, 5 thousand UAH). As of January 1, 2018, the number of fixed telephone subscribers (fixed telephone line) was 65,451 units – in urban settlements (including 46,224 household) and 47,981 units – in rural areas (including 44,891 domestic); main telephone lines – 64239 in urban settlements (including 46224 home) and 47917 in rural areas (including 44827 home).
At the beginning of 2018, there were 1,135.7 thousand mobile subscribers in Chernivtsi oblast. During 2008–2020, the number of newspapers and magazines sent by mail decreased slightly (9301.4 thousand in 2008 against 9156.7 thousand in 2020); the number of letters decreased 1.63 times (3505.5 thousand in 2008 against 2150.1 thousand in 2020); the number of sent telegrams decreased by 79.5 times (15.9 thousand in 2008 against 0.2 thousand in 2020); the number of parcels increased (from 153.9 thousand in 2008 to 176.5 thousand in 2020); money transfers and pension payments decreased 1.59 times (3249.3 thousand in 2008 against 2041.2 thousand in 2020). In 2020, 4263.8 thousand fixed telephone services were provided in Chernivtsi oblast.

Health care covers the entire system of treatment, treatment and prevention, sanatorium, recreational and other medical institutions [7, p. 174]. During 2008–2020, the network of hospitals in Chernivtsi oblast decreased from 72 in 2008 to 41 in 2020. During this period, the number of hospital beds also decreased. If in 2008 there were 93.6 hospital beds per 10,000 population, in 2020 this figure was 73.2 hospital beds per 10,000 people. Instead, the number of outpatient clinics increased from 196 in 2008 to 269 in 2020. During 2008–2020, the planned capacity of outpatient clinics increased from 187.1 to 195.9 visits per shift per 10,000 people. In 2020, medical care for the population of Chernivtsi oblast was provided by 41 hospitals with 6,616 beds and 269 outpatient clinics.

During 2008–2020, the number of medical staff decreased. If in 2008 there were 5.6 thousand doctors of all specialties (on average 61.8 doctors per 10,000 population) and 9.2 thousand paramedics (102.1 paramedics per 10,000 population), then in 2020, their number was 5.4 thousand (60.1 doctors per 10,000 population) and 8.9 thousand (98.7 paramedics per 10,000 population), respectively. The tendency to reduce the number of medical staff has been observed since 2011. However, it should be noted that in 2015-2020 the number of doctors of all specialties increased slightly per 10,000 population.

In 2020, Chernivtsi oblast had 81 units of collective accommodation, including: hotels – 47 units, tourist bases, mountain shelters, student summer camps and other places for temporary accommodation – 23 units, motels – 5 units, recreation centers and others recreation facilities (except camps) – 3 units, sanatoriums – 2 units and children's sanatoriums – 1 unit.

Out of 75 hotels and similar accommodation in 2020, more than a third were in Chernivtsi. Kitsman and Vyzhnytsia raions have a relatively large number of hotels and similar accommodation facilities – 13 and 9 units, respectively. The number of hotels and similar accommodation in Novodnistrovsk, Hlyboka, Kelmentsi, Novoselytsia, Putyla,
Sokyryany, Storozhynets and Khotyn raions ranges from 2 to 5 units, and in the areas of Hertsa and Zastavna raions hotels and accommodation are not available at all.

The highest use factor is in Sokyryany raion – 0.63, it is high in Chernivtsi and Novodnistrovsk – 0.22 and 0.21, respectively, the lowest use factor – in Storozhynets, Hlyboka, Putyla and Khotyn raions. The use factor is calculated as the ratio of the number of nights to the number of places in the accommodation, multiplied by the number of working days of the collective accommodation.

During 2008-2020, the number of tourists served by tour operators and travel agents decreased from 80,987 in 2008 to 20,341 in 2020. The largest reduction in the study period occurred in 2010-2012. Only since 2015, the total number of tourists began to increase mainly at the expense of tourists-citizens of Ukraine who went abroad.

In the summer of 2020 in Chernivtsi oblast there were 107 children’s health and recreation facilities with 2985 places in them. Slightly less than half of the total number of such institutions were located in Chernivtsi. Zastavna and Khotyn raions also had a large number – 15 institutions each. The lowest number of children’s health and recreation facilities is in Novodnistrovsk, Kitsman and Putyla raions – 1 each, and in Hertsa raion there are no such institutions at all. The largest number of places is in institutions of Storozhynets raion – 765. The highest indicators of the proportion of children who improved health in the total number of children aged 7-16 years were Chernivtsi – 29.7%, high rates are also in Sokyryansky (16.2%), Khotyn (15.7%) ), Novoselytsia (14.3%), and Zastavna (13.4%) raions.

During 2008–2020, there was a tendency to increase the number of preschool educational institutions and the number of places in them. In 2020, there were 381 preschool educational institutions in Chernivtsi oblast, the number of places was 25741, while in 2008 these figures were 337 and 21441. A large number of preschool educational institutions is concentrated in Chernivtsi – 58. A significant number of institutions is in Novoselytsia (38), Storozhynets (38), Zastavna (35), Hlyboka (34), Kitsman (32) and Khotyn (32) raions. Most children are in preschool educational institutions of Chernivtsi – 10955. High number of children in preschool educational institutions is in Storozhynets (3355), Novoselytsia (2555), Kitsman (2495) and Vyzhnytsia (2331) raions.

Significant territorial differences in Chernivtsi oblast can be observed in the coverage of children with preschool educational institutions. While in Chernivtsi and Novodnistrovsk the coverage of children by preschool educational institutions is the highest and is more than 80% of the number of children of the corresponding age, in such raions as Hlyboka, Storozhynets, Putyla this figure is less than 50%, and in Hertsa raion in general – 34 % and is
the lowest in the oblast. In addition, the coverage of children with preschools in rural areas is much lower than in urban areas. It should also be noted that this figure is generally lower in the south-western regions than in the north-eastern regions.

During 2008-2020, the network of secondary schools decreased from 451 in 2008 to 422 in 2020. The number of students from the 2014/15 school year gradually increased and at the beginning of the 2020/18 school year amounted to more than 100 thousand. The most establishments are located in Chernivtsi – 59, as well as in Storozhynets (47), Hlyboka (40), Khotyn (39) and Kitsman (38) raions. The largest number of students is in secondary schools in Chernivtsi (26323), Storozhynets (12796), Hlyboka (9186) and Vyzhnytsia (7687) raions. The largest number of students per teacher is in Chernivtsi and Novodnistrovsk – more than 10 students per 1 teacher, this figure is high in Storozhynets, Kitsman and Hlyboka raions, where there are 8-9 students per 1 teacher.

Today, along with the renewal of the traditional education system, there are new types of institutions that are alternative to traditional ones. In Chernivtsi oblast, as of the beginning of the 2020/18 school year, there were 21 gymnasiums with 8,893 students and 968 teachers. In Chernivtsi there were 7 gymnasiums with 3246 students and 380 teachers, these figures are the highest in the oblast. There are 3 gymnasiums with 1719 students and 157 teachers in Storozhynets raion, two gymnasiums each in Sokryany and Khotyn raions. There are no gymnasiums in Hertsa and Kelmentsi raions. The largest number of lyceums is in Chernivtsi (6) and Hlyboka raion (3) with the number of students 2100 and 1241 respectively. There are no lyceums in Vyzhnytsia, Zastavna, Kitsman, Putyla, Sokryany and Khotyn raions. Zastavna (21), Khotyn (19), Novoselytsia (16) and Kelmentsi (16) raions have the largest number of educational complexes. Most students per teacher in full-time secondary schools are in Novodnistrovsk, Chernivtsi and Storozhynets raion – more than 9. High rate is in Kitsman and Hlyboka raions – 8-9 students per 1 teacher. In Khotyn, Vyzhnytsia and Sokryany raions there are about 7 students per teacher, and in Kelmentsi, Zastavna, Novoselytsia, Hertsa and Putyla raions – about 6 students per 1 teacher and less.

During 2008–2020, the number of visits to museums, concerts and theaters per 100 population did not change significantly. In general, the population’s attendance at museums increased slightly and the number of concerts decreased. The number of film demonstrators in 2008-2020 decreased from 138 in 2008 to 50 in 2020, and the number of viewers at movie sessions decreased from 368.3 thousand in 2008 to 317.5 thousand in 2020. However, it should be noted that in recent years, since 2013, the number of spectators at movie sessions has gradually begun to grow.
During 2008-2020, there was a tendency to reduce the library network and reduce the provision of the library fund with the population. If in 2008 the network had 410 libraries, and the provision of the population with the library fund was 685 copies per 100 people, in 2020 they were 396 and 605, respectively. In 2020, the library network of Chernivtsi region had 396 libraries, of which 338 libraries operated in rural areas. The largest number of libraries is in Storozhynets (45), Kitsman (39), Hlyboka (37), Novoselytsia (37), Khotyn (37) and Vyzhnytsia (35) raions. Provision of the population with a book fund per 100 people on average in the oblast is 604 copies. The highest provision rates are in Zastavna, Khotyn and Putyla raions – 907, 879 and 859 copies, respectively.

Cultural and artistic activities in Chernivtsi oblast in 2020 were carried out by 387 club-type institutions with a total capacity of 98 thousand seats, including 350 institutions in rural areas (86 thousand seats). The largest number of club-type institutions is in Storozhynets (44), Kitsman (43) and Zastavna (36) raions.

To characterize the territorial dispersion of cultural institutions in cities of oblast importance and raions of Chernivtsi oblast in 2020, the localization coefficient and the coefficient of territorial concentration, as well as their integrated indicators were calculated [8, p. 103-104]. According to calculations, in the city of Novodnistrovsk, Zastavna, Vyzhnytsia and Sokyryany raions – a high level of localization of cultural institutions; in the city of Chernivtsi, Hlyboka, Kelmentsi and Putyla raions – middle level; in Hertsa, Kitsman, Novoselytsia, Storozhynets and Khotyn raions – low level. At the same time in the cities of Novodnistrovsk and Chernivtsi – a high level of territorial concentration of cultural institutions; in Hlyboka, Zastavna and Vyzhnytsia raions – the optimal level; other raions have a low level.

**Conclusions.** In our opinion, social infrastructure should be considered as a holistic system, the components of which are industries that meet the needs of the population in services and create favorable conditions for human life and social potential, and material objects (institutions, establishments, organizations, enterprises, etc.) ensuring the functioning of these industries. The interdependence and interconditionality of these components should be emphasized. Analyzing the main indicators of social infrastructure, we can trace significant differences in their development in terms of cities of oblast importance and raions of Chernivtsi oblast. It is natural that most of the objects of social infrastructure tend to urban settlements and most of them in the oblast center – Chernivtsi, because within the city is concentrated a large part of the population. In general, urban settlements have better
developed areas of social infrastructure, especially: education, culture, housing and communal services, trade, passenger transport, health care.

**References:**


