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Socio-Labor Potential of Youth in the Russian Arctic: Reproduction Problems *

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Abstract. Active efforts to develop the elements of territorial socio-economic systems of the Russian Arctic are the key to the efficient development of its resources. One such element is the labor potential, which, on the one hand, is a social factor of territorial self-development in the Russian Arctic, and, on the other hand, is capable of effectively implementing national interests in the Arctic. In this regard, the quality of labor potential of the regions of the Arctic zone of Russia is of particular relevance, which is the focus of the author's research. The first two stages of the study identified labor potential as a social factor in the self-development of the regions and local communities of the Russian Arctic, and also analyzed child poverty as a systemic factor limiting the possibilities of quality reproduction of labor potential of the regions of the Arctic zone of Russia. The purpose of the next stage of the study, the results of which are presented in this article, was to analyze the socio-economic situation of young people in the regions of the Russian Arctic as part of the formation of qualitative characteristics of labor potential of the Arctic zone of Russia. The research methods include statistical analysis of socio-economic situation of youth in the regions of the Russian Arctic and analysis of normative legal documents regulating certain issues of socio-labor relations. In the course of the study the main problems of socio-economic situation of the youth in the Russian Arctic, limiting the promising opportunities of their life activity in the regions of the Arctic zone of the Russian Federation, were identified. The results of the study are focused on their practical use in the management of the development of labor potential of the regions of the Russian Arctic.

Keywords: Youth, Russian Arctic, labor market, education, labor potential, wages, material well-being, unemployment, quality of life

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Introduction

The Arctic zone is an area of strategic interest for the Russian Federation, one of which is the rational use of the resource base in order to accelerate the country's economic growth ¹. The

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¹ Ukaz Prezidenta RF ot 5 marta 2020 g. № 164 «Ob Osnovakh gosudarstvennoy politiki Rossiyskoy Federatsii v Arktike na period do 2035 goda» [Decree of the President of the Russian Federation of March 5, 2020 No. 164 "On the Fundamentals of the State Policy of the Russian Federation in the Arctic for the period up to 2035"]. URL: <https://base.garant.ru/73706526/> (accessed 14 November 2021).

threat that forms the risks to this interest is the reduction of population (Table 1), the basis of the labor potential of the Russian Arctic.

Table 1

Working-age population and natural growth rate by regions of the Russian Arctic, 2000, 2005, 2010, 2015, 2020, thousand people

Region	Working-age population ² , thousand people					Natural increase rate ³ , ‰				
	2000	2005	2010	2015	2020	2000	2005	2010	2015	2020
Nenets AO	28.5	27.6	26.4	25.8	24.8	0.3	2.3	4.7	8.4	3.4
Murmansk Oblast	669.9	600.5	518.5	461.8	434.6	-2.9	-3.6	-0.2	0.3	-4.7
Yamalo-Nenets AO	354.5	375.3	368.0	353.5	347.9	6.2	7.7	10.3	11.3	6.9
Chukotka AO	52.4	37.2	34.2	32.0	30.7	1.6	3.9	0.9	4.1	0.4

In 2000–2020, the number of people of working age in the regions, the territories of which are fully attributed to the Arctic zone of the Russian Federation, decreased by 267.3 thousand people, including by 41.4% in the Chukotka Autonomous Okrug, by 35% in the Murmansk Oblast, by 13% in the Nenets Autonomous Okrug, by 1.9% in the Yamalo-Nenets Autonomous Okrug. Since 2005, there has been a decrease in the values of total fertility rates: on average, for the regions under consideration, the birth rate in 2005–2020 decreased by 23.6% (from 14‰ to 10.7‰). In 2015–2020, the level of natural population growth has significantly decreased (in the Nenets Autonomous Okrug — by 2.5 times, in the Chukotka Autonomous Okrug — by 10 times); the Murmansk Oblast has entered a natural population decline. In the Nenets Autonomous Okrug, the mortality rate of the population of working age increased from 590 to 629.2 deaths per 100.000 people of the corresponding age, in the Murmansk Oblast — from 635.4 to 664.1 ⁴. The COVID-19 pandemic made adjustments to the qualitative characteristics of the labor potential of the Russian Arctic (Fig. 1): in 2020, the life expectancy of the population of the Nenets Autonomous Okrug was 70.4 (in 2019 — 73.19), the Murmansk Oblast — 69.81 (71.75), Yamalo-Nenets Autonomous Okrug — 71.91 (74.18), Chukotka Autonomous Okrug — 65.82 years (68.09 years).

² Author's estimates. Source: Regions of Russia. Socio-economic indicators. URL: <https://rosstat.gov.ru/folder/210/document/13204> (accessed 12 February 2022).

³ Regions of Russia. Socio-economic indicators. URL: <https://rosstat.gov.ru/folder/210/document/13204> (accessed 12 February 2022).

⁴ Ibid.

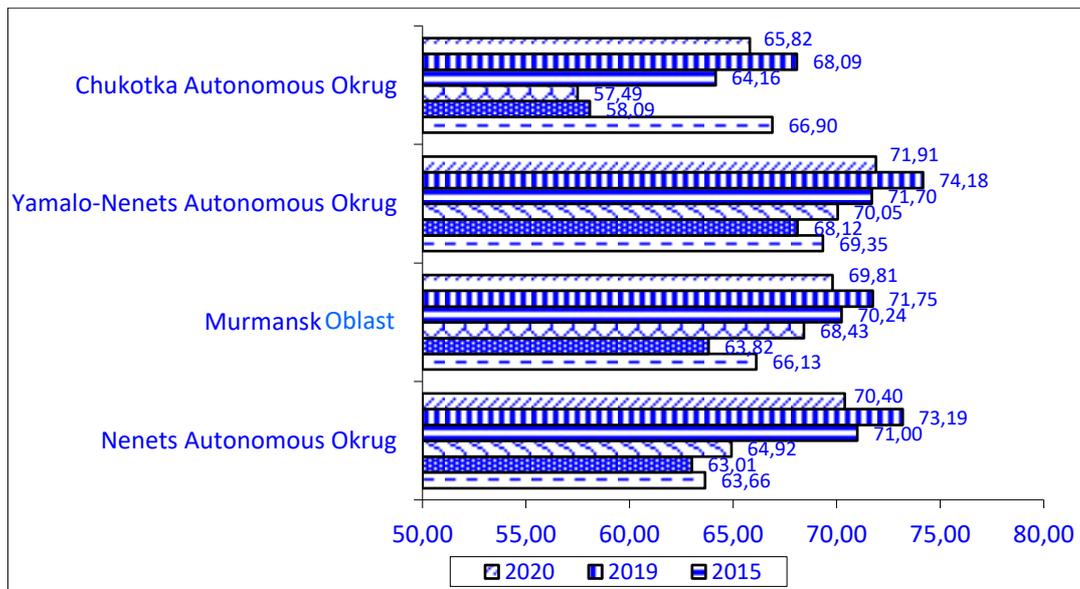


Fig. 1. Life expectancy at birth in the regions of the Russian Arctic, years, 2000, 2019, 2020⁵.

The labor potential of the Russian Arctic is a social factor of territorial development that has the ability for economic activity, the quantitative and qualitative characteristics of which are formed under the influence of the Arctic specifics and determine the level of sustainability of the development of the Arctic regions of the Russian Federation [1, Korchak E.A., p. 7]. Of particular importance in terms of formation of the labor potential of the Russian Arctic is the socio-economic situation of young people, since the youth (citizens aged 14–35 years) makes up the modern and promising part of the labor potential of the AZRF regions. In this aspect, the issues of professional and social self-realization⁶ and life strategies of young people, formed under the influence of existing living conditions in the harsh natural and climatic conditions of the Arctic, are especially relevant.

The degree of the problem development

Few Russian studies have examined the youth of the Russian Arctic, mostly from a sociological perspective. Sociological research deals with important issues of identity and migration attitudes among young people and indicates that their migratory moods are formed under the influence of socio-cultural and economic factors — “*a prosperous past, a problematic present and an unpromising future*” [2, Tsilev V.R., p. 123]” of the Arctic regions and local communities. The “*prosperous past*” was associated, first of all, with an effective system for attracting young qualified personnel [3, Galimulin E.Z., p. 100]. As sociological studies show, young people are not satisfied with modern social conditions of life, which leads to an unfavorable prognosis [4, Osipova O.V., Maklashova E.G., p. 24] in relation to the socio-economic development of the Arctic territo-

⁵ Regions of Russia. Socio-economic indicators. URL: <https://rosstat.gov.ru/folder/210/document/13204> (accessed 12 February 2022).

⁶ Arktika ob"edinyayet molodezh': vozmozhnosti dlya samorealizatsii i kar'ernogo rosta [The Arctic unites young people: opportunities for self-realization and career growth]. URL: <https://forumarctica.ru/news/arktika-obedinjaet-molodezh-vozmozhnosti-dlja-samorealizatsii-i-karernogo-rosta/> (accessed 07 March 2022).

ries — “*unpromising future*” — the lack of development prospects and the leveling of the historical significance of the Arctic cities and towns [5, Sharova E.N., p. 97]. Today, the vectors of youth self-realization “contradict the objectively existing opportunities” [6, Nedoseka E.V., p. 153] of regions and local communities of the Russian Arctic. Thus, the low attractiveness of life in single-industry Arctic settlements and the uncertainty in potential employment at local enterprises produce the predominance of young people in the age structure of the migration outflow of the population [7, Nedoseka E.V., Zhigunova G.V., p. 122, 130]. Single sociological studies of educational strategies and the situation of young people in the Arctic labor markets indicate that the migration outflow of young people is associated with a desire to get an education outside the region of residence [8, Zhuravlev N.Yu., p. 188]: graduates, due to limited opportunities to obtain the desired professional education in their place of residence, leave to study in other regions [9, Volgin N.A., Shirokova L.N., Mosina L.L., p. 126]. At the same time, a significant part of such youth is “irreturnable”, including due to the discrepancy between the education received and the possibilities of professional implementation in the “native” region/city [10, Ivanova M.V., Klyukina E.S., p. 187].

The quality of the labor potential of the Russian Arctic is largely determined by the starting conditions for young people to enter the labor force ⁷, and, as shown by sociological research in the youth environment, in particular in the Murmansk Oblast ⁸, the interest of young people in employment “in their hometown/region” is directly related with the creation of jobs and the expansion of production, as well as with the provision of wages corresponding to the harsh Arctic climate. Undoubtedly, the role of youth in the processes of formation of the labor potential of the Russian Arctic in the framework of the implementation of the national Arctic interests of the Russian Federation is important due to the qualitative characteristics of youth, socio-psychological characteristics ⁹ and life strategies in the Arctic space. Therefore, the purpose of this study is to analyze the socio-economic situation of young people (population aged 14–35 years) in the Russian Arctic (regions whose territories are fully assigned to the Arctic zone of the Russian Federation — the Murmansk Oblast, the Nenets, Chukotka and Yamalo-Nenets Autonomous okrugs) based on official data of Rosstat and territorial employment centers. The designated goal is the next stage in the study of labor potential as a social factor in the territorial self-development of the Russian Arctic [1, Korchak E.A., p. 7; 11, Korchak E.A., p. 47].

⁷ Ustoychivyy Sever: obshchestvo, ekonomika, ekologiya, politika: sbornik trudov IV vserossiyskoy nauchno-prakticheskoy konferentsii (13–14 marta 2018 g., g. Yakutsk) [Sustainable North: society, economy, ecology, politics: collection of proceedings of the IV All-Russian Scientific and Practical Conference (March 13–14, 2018, Yakutsk)]. Ufa, AETERNA Publ., 2018, 494 p.

⁸ Chto dumaet molodezh' o perspektivakh Kol'skogo Severa [What do young people think about the prospects of the Kola North]. URL: <https://goarctic.ru/society/chto-dumaet-molodyezh-o-perspektivakh-kolskogo-severa/> (accessed 04 February 2022).

⁹ Ustoychivyy Sever: obshchestvo, ekonomika, ekologiya, politika: sbornik trudov IV vserossiyskoy nauchno-prakticheskoy konferentsii (13–14 marta 2018 g., g. Yakutsk) [Sustainable North: society, economy, ecology, politics: collection of proceedings of the IV All-Russian Scientific and Practical Conference (March 13–14, 2018, Yakutsk)]. Ufa, AETERNA Publ., 2018, 494 p.

Demographic characteristics of the youth of the Russian Arctic

In 2015–2020, the share of young people in the total population of the regions of the Arctic zone of the Russian Federation (Table 2) decreased by 9.4% (the share of urban youth decreased by 10.4%, rural — by 4.4%; men aged 14–35 years — by 8.7%, women aged 14–35 — by 10.3%).

Table 2
 The share of citizens aged 14–35 in the total population of the AZRF regions, 2015–2020, %¹⁰

Region	2015	2016	2017	2018	2019	2020
Nenets AO	30.9	29.9	29.3	28.4	27.7	27.3
Murmansk Oblast	30.2	29.6	29.2	28.8	28.2	27.8
Yamalo-Nenets AO	32.6	29.7	31.0	30.3	29.6	28.9
Chukotka AO	30.7	30.1	29.6	29.5	29.2	28.7

In the Nenets Autonomous Okrug, the share of young people in the total population of the region in 2020 amounted to 27.3% (in 2015 — 30.9%), including men — 29.3% (33.4%), women — 25.3% (28.5%); in the Murmansk Oblast — 27.8% (30.2%), 32.3% (34.7%), 23.6% (26%); in the Yamalo-Nenets Autonomous Okrug — 28.9% (32.6%), 29.6% (33.4%), 28.1% (31.9%); in Chukotka Autonomous Okrug — 28.7% (30.7%), 29.7% (31.5%), 27.8% (29.8%). Positive dynamics in the number of young people in the period under review was recorded in the age groups of 15–19 years.

The largest share of marriages (Table 3) falls on young people aged 25–34 years. Thus¹¹, in the Yamalo-Nenets Autonomous Okrug, 1560 marriages are for grooms aged 25–34, 1280 for brides aged 25–34 (since 2017, there has been a downward trend in the number of marriages across all age groups in the okrug).

Table 3
 Marriages of young people by age group by regions of the Russian Arctic, 2020¹²

Region	under 18	18–24 years old	25–34 years old
Nenets AO	1	62	159
Murmansk Oblast	16	1691	3719
Yamalo-Nenets AO	16	1448	2840
Chukotka AO	5	103	231

¹⁰ Author's calculations. Sources: Chislennost' naseleniya Rossiyskoy Federatsii po polu i vozrastu na 1 yanvarya 2016 goda [Population of the Russian Federation by sex and age as of January 1, 2016]. URL: https://gks.ru/bgd/regl/B16_111/Main.htm (accessed 12 February 2022); Chislennost' naseleniya Rossiyskoy Federatsii po polu i vozrastu na 1 yanvarya 2017 g [Population of the Russian Federation by sex and age as of January 1, 2017]. URL: https://gks.ru/bgd/regl/B17_111/Main.htm; Chislennost' naseleniya Rossiyskoy Federatsii po polu i vozrastu na 1 yanvarya 2018 goda [Population of the Russian Federation by sex and age as of January 1, 2018]. URL: https://gks.ru/bgd/regl/B18_111/Main.htm (accessed 12 February 2022); Chislennost' naseleniya Rossiyskoy Federatsii po polu i vozrastu na 1 yanvarya 2019 goda [The population of the Russian Federation by sex and age as of January 1, 2019]. URL: https://gks.ru/bgd/regl/b19_111/Main.htm; Chislennost' naseleniya Rossiyskoy Federatsii po polu i vozrastu na 1 yanvarya 2020 goda [Population of the Russian Federation by sex and age as of January 1, 2020]. URL: https://gks.ru/bgd/regl/b20_111/Main.htm (accessed 12 February 2022); Chislennost' naseleniya Rossiyskoy Federatsii po polu i vozrastu na 1 yanvarya 2021 goda [Population of the Russian Federation by sex and age as of January 1, 2021]. URL: https://rosstat.gov.ru/storage/mediabank/Bul_chislen_nasel-pv_01-01-2021.pdf. (accessed 12 February 2022).

¹¹ Statistical Yearbook. Yamalo-Nenets Autonomous Okrug (1990–2020) / in II parts in 3 volumes, part I (1990–2016), part II (2017–2020). URL: <https://tumstat.gks.ru/ofpublic/document/72222> (accessed 18 January 2022).

¹² Regions of Russia. Socio-economic indicators. URL: <https://rosstat.gov.ru/folder/210/document/13204> (accessed 12 February 2022).

The highest value of the birth rate (Table 4) is in the age group of 25–29 years (with the exception of the Chukotka Autonomous Okrug). In the Yamalo-Nenets Autonomous Okrug, there are 133.9 live births per 1000 women aged 25–29 (versus 139.1 in 2017), and 91.1 per 1000 women aged 30–34 (there is a steady upward trend in the number of births in this age category in 2017–2020). In the Chukotka Autonomous Okrug¹³, the largest number of live births per 1000 women falls on the age groups of 20–24 years (there was a significant decrease in the birth rate in this group in 2016–2020) and 25–29 years¹⁴.

Table 4

*Age-specific fertility rates (live births per 1000 women, years) in the Russian Arctic regions, 2020*¹⁵

Region	15–19 years old	20–24 years old	25–29 years old	30–34 years old
Nenets AO	23.8	91.1	152.5	115.1
Murmansk Oblast	8.8	64.5	95.1	73.1
Yamalo-Nenets AO	13.7	82.6	133.9	91.1
Chukotka AO	31.1	98.2	93.4	74.0

In relation to the qualitative characteristics of young people, health issues play a special role. Climatic and geophysical territorial features determine the syndrome of polar stress in the regions of the Russian Arctic, caused by changes in metabolism and endocrine regulation, and expressed in polar dyspnea, decreased performance and depression [12, Belisheva N.K., Petrov V.N., p. 155]. In addition, 60% of all gross emissions in the AZRF regions come from ferrous and non-ferrous metallurgy enterprises; long-term activity of the city-forming enterprises of the mining industry and non-ferrous metallurgy has led to significant consequences for the flora and fauna; during periods of anticyclonic nature in the resource-producing cities of the Russian Arctic, increased concentrations of pollutants are recorded [12, Belisheva N.K., Petrov V.N., p. 157]. For example, the territories of the Murmansk Oblast that are unfavorable in terms of the incidence of adolescents aged 15–17 years are resource-producing settlements — the city of Kirovsk, Kovdorskiy and Lovozerskiy districts [13, Kovshov A.A., Tikhonova N.A., Fedorov V.N., Novikova Yu.A., p. 916]; in the Yamalo-Nenets Autonomous Okrug — Tazovski district (the highest level of primary incidence of adolescents with diseases of the digestive system has developed here), Muravlenko and Gubinskiy cities¹⁶. The Chukotka Autonomous Okrug accounts for the highest morbidity rate for adolescents with neoplasms in Russia [14, Karpova O.B., Shchepin V.O., Zagoruchenko A.A., p. 93] (it should be noted that the region has a positive trend in terms of reducing mortality among young people in 2016–2020).

Youth in the labor market of the Russian Arctic

¹³ Movement of the population. URL: <https://habstat.gks.ru/folder/27977> (accessed 12 February 2022).

¹⁴ There is no information for the Nenets Autonomous Okrug and the Murmansk Region.

¹⁵ There is no information for the Nenets Autonomous Okrug and the Murmansk Region.

¹⁶ Non-infectious morbidity of the population of the Yamalo-Nenets Autonomous Okrug in 2016. URL: <http://89.rospotrebnadzor.ru/s/89/files/directions/monitoring/146492.pdf> (accessed 21 February 2022).

An analysis of the structure of the employed population by age groups (Table 5) shows that in 2015–2020, the level of employment on average decreased in the age group of 20–29 years (from 20.9% to 14.6%) against the background of an increase in employment in the age groups of 30–39 years (from 29.1% to 31.6%), 40–49 years (from 25.5% to 28.5%) and 60–72 years old (from 3.9% to 5.2%). In the structure of the employed population of the Nenets Autonomous Okrug, the share of the population aged 20–29 years has decreased by 31%, in the Murmansk Oblast — by 30%.

Table 5

*The structure of the employed population in the regions of the Russian Arctic, %, 2015, 2020*¹⁷

Region	15–19 years old	20–29 years old	30–39 years old	40–49 years old	50–59 years old	60–72 years old
Structure of the employed population aged 15–72 (by age group), 2015						
Nenets AO	0.5	21.7	30.7	23.4	20.0	3.6
Murmansk Oblast	0.6	22.7	27.6	24.2	19.5	5.3
Yamalo-Nenets AO	0.2	18.6	31.2	27.5	20.9	1.7
Chukotka AO	0.8	19.2	27.5	25.0	21.6	6.0
Structure of the employed population aged 15–72 (by age group), 2020						
Nenets AO	0.4	14.9	31.9	27.7	19.5	5.6
Murmansk Oblast	0.5	15.8	30.8	27.4	18.3	7.3
Yamalo-Nenets AO	0.1	13.4	32.9	30.0	21.3	2.2
Chukotka AO	0.1	12.5	27.7	27.5	23.4	8.8

In the structure of unemployed citizens in the regions under consideration (Table 6), the share of the unemployed in the age groups of 15–19 years and 20–29 years has decreased against the background of its significant increase (2.2 times) in the age group of 60–72 years. In the Nenets Autonomous Okrug, in 2015–2020, the share of the population aged 20–29 years in the structure of unemployed citizens has decreased by 36%, 15–19 years old — by 43%. On the contrary, in the Chukotka Autonomous Okrug, the share of the population aged 20–29 in the structure of unemployed citizens increased 1.5 times against the backdrop of a 10.2-fold increase in the share of unemployed aged 50–59.

Table 6

*The structure of unemployed population in the regions of the Russian Arctic, %, 2015, 2019, 2020*¹⁸

Region	15–19 years old	20–29 years old	30–39 years old	40–49 years old	50–59 years old	60–69 years old
Structure of unemployed population aged 15–72 (by age group), 2015						
Nenets AO	7.2	42.0	23.7	17.4	8.7	1.0
Murmansk Oblast	9.9	30.6	19.0	17.1	18.7	4.8
Yamalo-Nenets AO	2.4	46.5	22.6	15.9	11.8	0.9
Chukotka AO	2.8	32.9	21.9	19.1	21.5	1.7
Structure of unemployed population aged 15–72 (by age group), 2019						
Nenets AO	2.2	28.3	29.1	21.7	14.3	3.9
Murmansk Oblast	3.5	32.8	23.4	18.3	15.0	0.7

¹⁷ Labor force, employment and unemployment in Russia. URL: <https://rosstat.gov.ru/folder/210/document/13211> <https://rosstat.gov.ru/folder/210/document/13211> (accessed 21 February 2022).

¹⁸ Regions of Russia. Socio-economic indicators. URL: <https://rosstat.gov.ru/folder/210/document/13204> (accessed 21 February 2022).

Yamalo-Nenets AO	2.3	52.2	24.6	5.9	15.0	0.0
Chukotka AO	1.3	49.0	32.2	12.7	4.8	0.0
Structure of unemployed population aged 15–72 (by age group), 2020						
Nenets AO	4.1	26.8	31.9	16.9	17.4	2.8
Murmansk Oblast	4.4	30.6	19.8	16.5	17.6	10.2
Yamalo-Nenets AO	4.2	41.4	34.7	8.4	10.1	1.2
Chukotka AO	1.2	52.0	42.3	2.4	2.1	0.0

Average age of the unemployed in the regions of the Russian Arctic in 2015–2020 increased from 35 years to 37 years. In the Nenets Autonomous Okrug, the average age of unemployed citizens in 2020 was 37.1 years (in 2015 — 32.5 years), in the Murmansk Oblast — 38.7 (36.3); in the Yamalo-Nenets Autonomous Okrug, the average age of unemployed citizens decreased from 33.4 to 31.7 years; in the Chukotka Autonomous Okrug — from 37.2 to 28.9.

The COVID-19 pandemic had a negative impact on the labor markets of the regions of the Russian Arctic: in 2020, the level of general unemployment in the Murmansk Oblast increased by 42.6% compared to 2019 (registered — by 68.7%), in the Nenets AO — by 11.4% (2 times), in Chukotka AO — by 15.8% (5%), in Yamalo-Nenets AO — by 26.3% (3 times). The problem of youth unemployment has worsened. For example, in the Yamalo-Nenets Autonomous Okrug, the number of officially registered unemployed in the age group of 16–29¹⁹ increased by 4 times, of which 25% had a higher professional education, 29% had a secondary vocational education, 19% had a general secondary education, and 16% had a basic general education. Today, in the region²⁰, 26.2% in the total number of unemployed citizens are young people aged 16–29: the lowest percentage (14.5%) of unemployed youth is in the city of Gubkinskiy, the highest percentage (55%) is in the Tazovski district. In the structure of registered unemployed, 0.7% is citizens aged 16–17, 2.3% — 18–19 years, 11.4% — 20–24 years, 11.8% — 25–29 years old. According to Tyumenstat²¹ data, the share of graduates of educational organizations in the total number of unemployed in 2020 was 4.6% (in Muravlenko — 8%, in the Tazovski district — 7.5%, in the Priuralskiy district — 0.9%), 29.3% of them are graduates of higher education, 56.1% — of professional education, 14.6% — of general education organizations.

Analysis of a sample survey of the employment of graduates with secondary vocational and higher education²² conducted by the Federal State Statistics Service shows that the highest unemployment rate is among skilled workers and employees, while the overall employment rate

¹⁹ Monitoring of the youth labor market in the Yamalo-Nenets Autonomous Okrug. URL: https://rabota.yanao.ru/content/мониторинг_рынка_труда_молодежи_в_ямало_ненецком_автономном_округе (accessed 21 February 2022).

²⁰ The main indicators of the labor market of the Yamalo-Nenets Autonomous Okrug for 2019. URL: [https://rabota.yanao.ru/cms_data/usercontent/regionaleditor/издания/лето%202020%20год/статбюллетень%20рынок%20труда%20янао%20за%202019%20год\(иап\).pdf](https://rabota.yanao.ru/cms_data/usercontent/regionaleditor/издания/лето%202020%20год/статбюллетень%20рынок%20труда%20янао%20за%202019%20год(иап).pdf) (accessed 21 February 2022).

²¹ Ibid.

²² The results of sample observation of employment of graduates who have received secondary vocational and higher education. URL: https://gks.ru/free_doc/new_site/population/trud/itog_trudoustr/index.html (accessed 21 February 2022).

does not reach 50%. Thus, in the Chukotka Autonomous Okrug²³, the employment rate among graduates of 2016–2018 amounted to 69.2%, with the Russian average of 83.7%; unemployment rate — 13.5% (7.1%). With a generally very high level of employment (94.2%) in the Chukotka Autonomous Okrug, the level of employment of young people with higher education is lower than the average for the regions of the Russian Federation [15, Razumova T.O., Zolotina O.A., p. 148]. For enterprises in the fields of coal mining, metal ores and diamonds, transport and logistics, construction and production of building materials in the region, vocational training is provided by the Chukotka branch of the M.K. Ammosov North-Eastern Federal University, Chukotka North-West Technical College of Bilibino, Chukotka Multidisciplinary College, Chukotka Polar College in Egveki-not, Chukotka North-Eastern College in Providence. The level of employment of graduates of educational institutions who completed their studies in educational programs of secondary vocational education is the highest in the Russian Federation — 81.2%. Nevertheless²⁴, employers in the region experience a significant need for highly qualified specialists (in science and technology, education, healthcare), skilled workers in industry, construction, transport, and specialists of an average level of qualification.

On average for the regions of the Russian Arctic, as sociological studies show [16, Simakova A.V., Gurtov V.A., p. 156], almost a third of employers experience a shortage of personnel, 10% — an acute shortage; among professions demanded by employers, 27% require higher education [16, Simakova A.V., Gurtov V.A., p. 160]. Almost 80% of the list of the most popular professions and specialties in the Russian Arctic belong to the system of secondary vocational education; however, not all of them are trained [17, Simakova A.V., Stepus I.S., Pitukhin E.A., p. 160]. An analysis of Rosstat data (Table 7) shows that employers in the Chukotka Autonomous Okrug experience the greatest need for “operators of production plants and machines, assemblers and drivers”, in the Murmansk Oblast — for “skilled workers in industry, construction, transport and related occupations”, in Yamalo-Nenets Autonomous Okrug — in “specialists of the highest qualification level”.

Table 7

Distribution of organizations' demand for workers to fill vacancies by professional groups in the Russian Arctic regions as of October 31, 2020, %²⁵

Professional group	Nenets AO	Murmansk Oblast	Yamal-Nenets AO	Chukotka AO
Highly qualified specialists	9.6	20.2	22.9	20.5
Specialists of intermediate level	14.8	12.8	10.3	11.1
Workers in the service sector and trade, pro-	8.5	7.5	7.2	4.7

²³ Regional differences in employability of university graduates. URL: https://www.hse.ru/data/2021/01/18/1348766917/release_2_2021.pdf (accessed 18 February 2022).

²⁴ On the situation in the labor market of the Chukotka Autonomous Okrug. URL: https://trud87.ru/content/экспресс_информация_о_положении_на_рынке_труда (accessed 21 February 2022).

²⁵ On the number and needs of organizations in workers by professional groups. URL: <https://rosstat.gov.ru/compendium/document/13266> (accessed 21 February 2022).

tection of citizens and property				
Skilled workers in industry, construction, transport and related occupations	13.4	46.9	3.9	19.5
Plant and machine operators, assemblers and drivers	44.4	4.1	18.2	13.3
Unskilled workers	3.9	4.9	9.0	10.5

The most acute problem in the field of employment of graduates of educational organizations is the low level of employment in the first job related to the profession or specialty received. Thus, in the Nenets Autonomous Okrug, the share of 2010–2015 graduates who got jobs in their specialty graduates with secondary vocational education in training programs for mid-level specialists amounted to 58%, in training programs for skilled workers and employees — 55.2% (the level of employment of graduates of educational organizations who completed their studies in educational programs of secondary vocational education is 61.4%). In the Murmansk Oblast — 48.4% and 30%²⁶ (61.7%), respectively (for example, the level of actual employment of graduates of the Murmansk Civil Engineering College graduating in 2019/2020 in the specialty “applied geodesy” was 30%, “automatic control systems” — 20%, “driver of urban electric transport” — 76.9%, “technology of catering products” — 78.9%, “construction and operation of buildings and structures” — 100%²⁷).

Another aspect is the choice of future profession. According to the study of professional intentions of students in the 9th and 11th grades of general educational organizations²⁸, conducted by the employment service of the Murmansk Oblast, most graduates after finishing school plan to continue their studies in educational organizations of higher (in 2019 — 57%) and secondary (28%) professional education. At the same time, since 2017, the share of students oriented towards higher education has been decreasing, while the share of secondary vocational education has been increasing; every year, almost 50% of high school students finally decide on the choice of an educational organization for receiving education (according to preferences, this is the Murmansk Oblast, the cities of St. Petersburg, Petrozavodsk, Moscow). Among students in 11th grades, the share of those who have decided on a particular profession is 44%, in 9th grades — 35%; the share of those who haven’t decided is 28%. The share of graduates who plan to work in the Murmansk Oblast after receiving education is 23%, in other regions — 35% (of which 42% in St. Petersburg

²⁶ The results of sample observation of employment of graduates who have received secondary vocational and higher education. URL: https://gks.ru/free_doc/new_site/population/trud/itog_trudoustr/index.html (accessed 14 September 2021).

²⁷ Information about the employment of graduates. URL: <http://msk-murman.ru/main/studentam/praktika> (accessed 21 February 2022).

²⁸ Analytical review of the results of a study of professional intentions of students in the 9th and 11th grades of educational institutions of the Murmansk Oblast in 2019. URL: https://murmanzan.ru/cms_data/usercontent/regionaleditor/комитет%202016/психологи/анализ%20результатов%20исследования%202019.pdf (accessed 18 January 2022).

and the Leningrad Oblast, 15% in Moscow and the Moscow Oblast; 7% plan to leave outside the country). In this regard, it should also be noted that one of the main obstacles to the implementation of life plans in the region of residence is the unwillingness of employers to “employ young citizens without work experience” (more than 70% of young people in the Murmansk Oblast need help in finding employment)²⁹, as well as the impossibility of obtaining education in specialties of interest that are not available in educational institutions in the region of residence.

The successful implementation of the largest investment projects in the regions of the Russian Arctic depends on the promising quality of labor potential. In this aspect, such an important stage in determining the life trajectories and intentions of young people as the choice of profession is of particular importance. Mistakes in such a choice and work not in the received specialty lead not only to a decrease in the efficiency of budget investments in the educational sphere (economic losses) [18, Kekkonen A.L., Simakova A.V., Stepus I.S., pp. 89–90], but also to an increase in unemployment (due to the lack of demand for specialists and a decrease in the professional level of those who were not employed in their specialty immediately after graduating from an educational institution), the migration outflow of young people and, ultimately, to a prospective decrease in the qualitative characteristics of the labor potential of the regions of the Russian Arctic.

Quality of life in the Russian Arctic

Along with difficulties in employment, the top reasons for emigration of young people from the regions of the Russian Arctic are the low quality of life associated with limited opportunities to meet the basic human needs for nutrition, safety, reproduction, as well as the needs for socio-cultural life, self-actualization [19, Eremeeva L.I., p. 82].

Material well-being has a significant influence on the formation of the qualitative characteristics of young people. As sample studies of household budgets by Rosstat show³⁰, in the Chukotka Autonomous Okrug, 56% of households classify themselves as poor, in the Nenets Autonomous Okrug — 53.2%, in the Murmansk Oblast — 43.1%, in the Yamalo-Nenets Autonomous Okrug — 17.1%. In the structure of poor households in the Nenets Autonomous Okrug, 96% have children under the age of 18, in Chukotka Autonomous Okrug — 94.2%, in Yamalo-Nenets Autonomous Okrug — 92.3%, in Murmansk Oblast — 60.4%. Figure 2 graphically shows the poverty level of the population of the regions under consideration in comparison with the regions and cities that young people prefer for their future life.

²⁹ PORA vyyasnit', chego ne khvataet molodezhi v Arktike [IT'S TIME to find out what young people are missing in the Arctic]. URL: <https://24rus.ru/news/economy/177787.html> (accessed 18 February 2022).

³⁰ Household income, expenditure and consumption in 2020 (based on the Household Budget Survey). URL: https://gks.ru/bgd/regl/b20_102/Main.htm (accessed 21 February 2022).

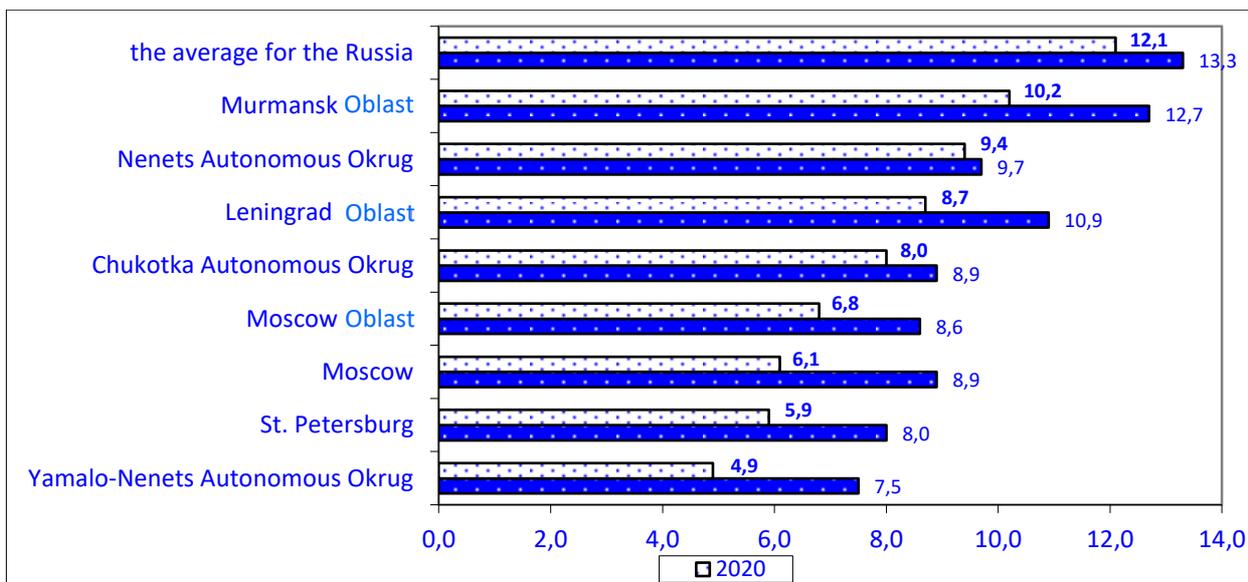


Fig. 2. The level of poverty in the regions of the Russian Arctic in comparison with the average for the Russian Federation, Moscow and Leningrad oblasts, 2015, 2020³¹.

The highest proportion of the population with average per capita cash incomes below the subsistence minimum in 2020 was registered in the Murmansk Oblast: the poverty level is almost 2 times higher than the average in St. Petersburg and Moscow. In the Nenets Autonomous Okrug, the poverty rate is 9.4%, in the Chukotka Autonomous District — 8%. If we compare the absolute and relative levels of poverty [20, Baranov S. V., Gasnikova A. A., Biev A. A., pp. 160–163], it should be noted that in the Yamalo-Nenets Autonomous Okrug, the share of the population with average per capita cash income below the median level was 4 times higher than the share of the population with average per capita cash income below the subsistence level of the able-bodied population (4.9 % against 19.9%), in the Chukotka Autonomous Okrug — 2.2 times (8% and 17.9%), in the Nenets Autonomous Okrug — 2 times (9.4% and 19%), in the Murmansk Oblast — 1.2 times (10.2% and 2.8% respectively).

Poverty in the regions of the Russian Arctic is more severe than in regions with comfortable natural and climatic conditions: limited cash income produces financial constraint on paying for housing and communal services (in the regions of the Arctic zone of the Russian Federation, there are high costs in the sphere of housing and utilities, due to the duration of the heating season and the lighting period in the polar night), the purchase of medicines. Thus³², in 2020, 9.5% of households experienced financial difficulties in reimbursement of payments for housing and communal services, 4.6% — in purchasing medicines prescribed by a doctor for emergency treatment. In general, the purchasing power of the income of the population in most of the Arctic settlements does not reach the average Russian level and does not provide a socially acceptable standard of living for the population living in harsh climatic conditions [21, Bobkov V.N., Gulyugina A.A., Zlenko

³¹ Regions of Russia. Socio-economic indicators. URL: <https://rosstat.gov.ru/folder/210/document/13204> (accessed 12 January 2022).

³² Household income, expenditure and consumption in 2020 (based on the Household Budget Survey). URL: https://gks.ru/bgd/regl/b20_102/Main.htm (accessed 21 February 2022).

E.G., Odintsova E.V., p. 62]. In this aspect, it is necessary to note the decrease in the efficiency of the district wage system — it has actually lost the function of compensating for the rise in the cost of living and stimulating the retention of qualified personnel, including due to the selectivity of the norm for the payment of district coefficients and polar bonuses to salary of youth [22, Zlenko E.G., p. 39]. According to Rosstat (Fig. 3), in 2020, the group of regions with a level of labor income (in comparison with the subsistence level of the able-bodied population) below the average for the Russian Federation, in addition to the Murmansk Oblast, included the Nenets Autonomous Okrug.

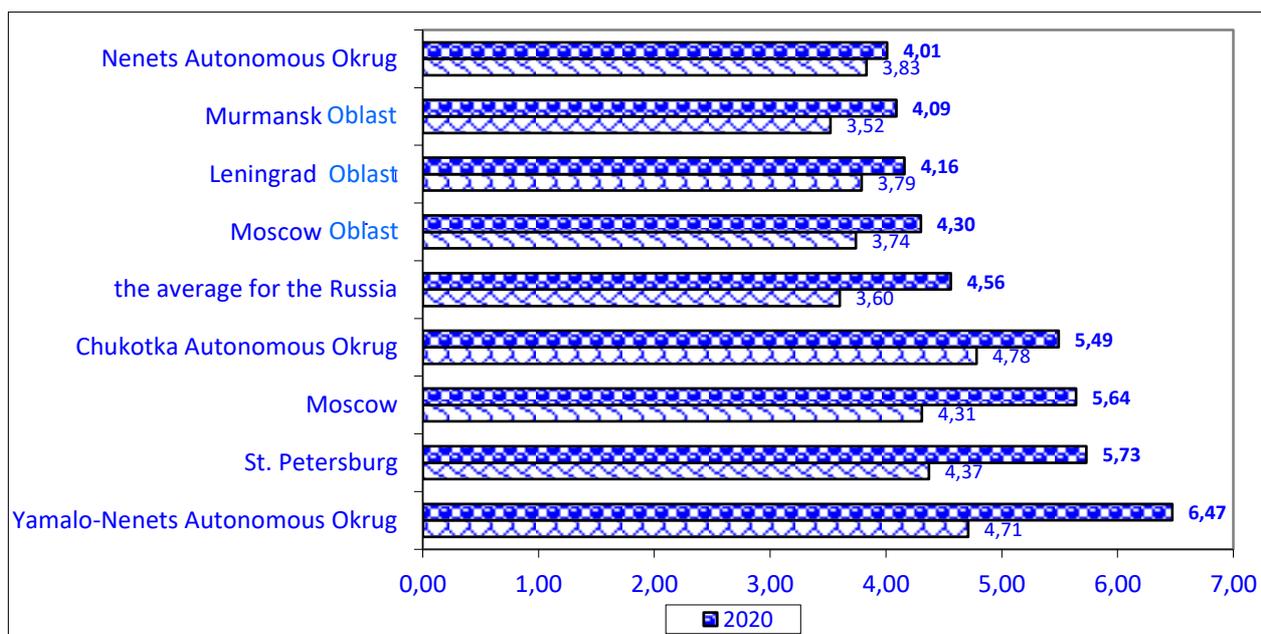


Fig. 3. The ratio of the average monthly accrued wages to the subsistence level of the able-bodied population in the regions of the Russian Arctic in comparison with the average for the Russian Federation, Moscow and Leningrad oblasts, 2015, 2020³³

Comparison of the values of this indicator with its limiting critical value (5 times for the Arctic regions and 3 times for the rest of the regions of the Russian Federation [23, Korchak E.A., p. 96]) shows that the Yamalo-Nenets and Chukotka Autonomous okrugs have achieved high social standards in 2020 in terms of living standards. However, this situation cannot be interpreted unambiguously, since such regions are characterized by the dominance of extractive industries with a high level of wages, where a significant proportion of the employed are citizens working on a rotational basis. The wages of “shift workers” are spent mainly outside the autonomous okrugs and do not have a significant impact on the monetary incomes of the local population through the formation of demand, therefore, accounting for wages in the structure of monetary incomes of the population of the Chukotka and Yamalo-Nenets Autonomous okrugs statistically overestimates their meaning³⁴. Another aspect is the differentiation of wages: an analysis of the distribution of

³³ Regions of Russia. Socio-economic indicators. URL: <https://rosstat.gov.ru/folder/210/document/13204> (accessed 12 January 2022).

³⁴ Sotsial'no-ekonomicheskiy profil' Chukotskogo avtonomnogo okruga — 2020 [Socio-economic profile of the Chukotka Autonomous Okrug — 2020]. Khabarovsk, FANU "Vostokgosplan" Publ., 2021, 48 p.

the number of employees by the amount of accrued wages³⁵ indicates that in the mining sector in the Yamalo-Nenets Autonomous Okrug, 62.8% of workers have wages below the industry average; in Chukotka Autonomous Okrug — 64.3%.

Wage issues directly affect youth employment strategies and thereby on the availability of human resources in economic sectors and the social sphere. An example is the Murmansk Oblast, where the issues of staffing in healthcare are especially acute. Doctors under 36 years old make 29.9% of all medical staff in the region, doctors aged 36–45 make 25.4%, specialists with secondary medical education — 25.5% and 24.3%, respectively³⁶. Additional measures are being implemented in the region to stimulate young personnel. In 2020, 66 doctors received one-time compensation payments in the amount of 500 thousand rubles, and 7 paramedics received 300 thousand rubles; quarterly cash compensation for housing and utilities in the amount of 15 thousand rubles was provided to 142 medical workers³⁷. A one-time social payment for the purchase or construction of housing for certain categories of medical workers (in amount of 50% of the initial payment) was provided to 25 medical workers in 2020 (the funds are free of charge, but the medical worker is obliged to be employed in the region at least 10 years). Within the framework of the “Zemskiy Doctor” and “Zemskiy Paramedic” programs, 20 medical specialists and 1 paramedic were employed in 2020: according to the programs, being employed in a village or urban-type settlement, a doctor is paid 2 million rubles, a paramedic — 1 million rubles, for employment in cities with a population of up to 50 thousand people — 1 million rubles and 500 thousand rubles, respectively. However, the measures being implemented are criticized by doctors in the Murmansk Oblast, since, firstly, they are aimed at rural and small urban settlements; secondly, they cause tension between local and visiting specialists due to the fact that “*health workers who worked in polyclinics and hospitals in the region for decades have never received such payments*”³⁸, thirdly, against the background of a small number of visiting medical specialists, a significant proportion of doctors left the region (for example, in 2018, 16 doctors were recruited, while about a hundred doctors, mostly of working age, left the region³⁹).

Official statistics⁴⁰ show that in the Murmansk Oblast, the average monthly salary of workers in the healthcare and social services sector is 66.164 rubles, however, an analysis of the distri-

³⁵ Trud i zanyatost' v Rossii 2021 g. [Labor and employment in Russia 2021] URL: https://gks.ru/bgd/regl/b21_36/Main.htm; Svedeniya o raspredelenii chislennosti rabotnikov po razmeram zarabotnoy platy [Information on the distribution of the number of employees by wages]. URL: <https://rosstat.gov.ru/compendium/document/13268> (accessed 08 January 2022).

³⁶ Annual report on the progress of implementation and evaluation of the effectiveness of the state program of the Murmansk Oblast “Health Development” for 2020. URL: <https://minzdrav.gov-murman.ru/documents/programs/gosproject/gp-report/poyasnitelnaya-zapiska-2020.pdf> (accessed 14 January 2022).

³⁷ Ibid.

³⁸ Praktikuyushchie vrachi kritikuyut programmu «Arkticheskiy doktor» [Practitioners criticize the Arctic Doctor program]. URL: <https://severpost.ru/read/78730> (accessed 17 February 2022).

³⁹ Vrachey ne khvataet, no ikh aktivno uvol'nyayut [There are not enough doctors, but they are actively fired]. URL: <https://severpost.ru/read/85919/> (accessed 01 February 2022).

⁴⁰ Regions of Russia. Socio-economic indicators. URL: <https://rosstat.gov.ru/folder/210/document/13204> (accessed 12 January 2022).

bution of employees by size of accrued wages ⁴¹ indicates that 72.1% ⁴² of workers in this sector receive wages below this value. In 2020, the average salary of doctors and employees of medical organizations with higher education ⁴³ in the Murmansk Oblast was 120.171 rubles, in the Moscow Oblast — 118.002 rubles, in the Leningrad Oblast — 95.827 rubles, in St. Petersburg — 123.552 rubles, in Moscow — 158.136 rubles. The average monthly salary of paramedical personnel is 66.712 rubles, 70.309 rubles, 51.600 rubles, 72.979 rubles and 91.967 rubles, respectively. At the same time, it should be taken into account that in the Murmansk Oblast, unlike the compared regions, the regional coefficient (50% of the salary) and the percentage allowance (80% of the salary) are applied to official salaries. In this regard, in relation to the issues of remuneration of medical workers, it is necessary to focus on the remuneration system itself (Table 8).

Table 8

Minimum official salaries for healthcare workers (professional qualification group “doctors and pharmacists”), rubles, 2021 ⁴⁴

Positions of employees classified by qualification levels	Nenets AO	Murmansk Oblast	Yamalo-Nenets AO	Chukotka AO	Moscow Oblast
1 qualification level					
Trainee doctor	11 000	8 412	21 952	13 404	29 795
2 qualification level					
Specialist doctors	11 500	9 103	24 147	19 298	35 030
3 qualification level					
Specialist doctors of inpatient units, general practitioners, pediatricians, etc.	12 300	10 244	26 561	20 375	37 956
4 qualification level					
Surgical specialists, senior doctor, etc.	12 700	11 148	29 218	21 442	44 269

⁴¹ Information on the distribution of the number of employees by wages. URL: <https://rosstat.gov.ru/compendium/document/13268> (accessed 12 January 2022).

⁴² Author's calculated data.

⁴³ The results of federal statistical monitoring in the field of remuneration of certain categories of workers in the social sphere and science for January–December 2020. URL: <https://rosstat.gov.ru/storage/mediabank/1eEUBIVB/itog-monitor05-20.htm> (accessed 17 February 2022).

⁴⁴ Ob oplate truda rabotnikov gosudarstvennykh uchrezhdeniy zdravookhraneniya Chukotskogo avtonomnogo okruga [On the remuneration of employees of public health institutions of the Chukotka Autonomous Okrug]. URL: <https://docs.cntd.ru/document/446289254> (accessed 15 February 2022); Ob utverzhenii Otravlevogo polozheniya ob oplate truda rabotnikov gosudarstvennykh meditsinskikh organizatsiy, podvedomstvennykh departamentu zdravookhraneniya Yamalo-Nenetskogo avtonomnogo okruga [On approval of the Sectoral Regulation on the remuneration of employees of state medical organizations subordinate to the Health Department of the Yamalo-Nenets Autonomous Okrug]. URL: <https://docs.cntd.ru/document/444962007> (accessed 15 February 2022); Ob oplate truda rabotnikov byudzhethnykh uchrezhdeniy gosudarstvennoy sistemy zdravookhraneniya Nenetskogo avtonomnogo okruga [On the remuneration of employees of budgetary institutions of the state health care system of the Nenets Autonomous Okrug]. URL: <https://docs.cntd.ru/document/441796502> (accessed 15 February 2022); Ob oplate truda rabotnikov gosudarstvennykh uchrezhdeniy zdravookhraneniya Moskovskoy oblasti [On the remuneration of employees of public health institutions of the Moscow Oblast]. URL: <https://docs.cntd.ru/document/819008253> (accessed 15 February 2022); Prikaz Ministerstva zdravookhraneniya Murmanskoy oblasti ot 02.09.2021 № 538 [Order of the Ministry of Health of the Murmansk Oblast No. 538 dated September 2, 2021]. URL: <https://minzdrav.gov-murman.ru/documents/npa/2021/> (accessed 15.02.2022). There is no information for Moscow, St. Petersburg and the Leningrad Oblast.

For reference: the subsistence level of the able-bodied population, rub.	23 423	22 047	17 707	24 875	14 987
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The official salary is set for the performance of labor (official) duties of a certain complexity for a calendar month, while, in accordance with the labor legislation of the Russian Federation, incentive and compensation payments (such as: northern allowances, allowances for length of service, complexity of work, etc.) should not be included in the official salary [24, Zhelomeeva N.V., p. 102, 104]. Thus, the size of the official salary should actually correspond to the subsistence level of the able-bodied population. Nevertheless, in the Murmansk Oblast, the salary of doctors of the 1st qualification level is 38% of the subsistence level of the able-bodied population, the 2nd level — 41.3%, the 3rd level — 46.4%, the 4th one — 50.5% (in the Nenets Autonomous District — 46.9%, 49.1%, 52.5%, 54.2%, in the Chukotka Autonomous District — 53.9%, 75.5%, 81.9%, 86.2%; in Moscow Oblast — 198.8%, 233.7%, 253.2% and 295.4%, respectively). Today, federal legislation regulating the issues of remuneration, including healthcare, is advisory in nature, so the size of the “regional” official salaries of doctors of the same qualification level can differ by 5 times, which leads to a decrease in the efficiency of the remuneration system workers, to a decrease in productivity and motivation to work, and produces problems of labor migration [25, Obukhova O.V., Bazarova I.N., Gavrilenko O.Yu., pp. 132–133]. Thus, in 2020⁴⁵, 35 students and 32 residents received higher medical education under targeted training agreements for the Murmansk Oblast. Of the 35 graduates (specialist programs), only 9 people were employed, 10 people unilaterally terminated the contracts, 2 people did not fulfill their obligations for good reasons and 14 people continued their studies under the residency program. Of the 32 residents, 19 people were employed in regional medical organizations, 11 persons refused to be employed without any reasonable excuse. Today, hospitals in the Murmansk Oblast are only 58% full of doctors, medical institutions lack more than 1000 specialists⁴⁶.

The issues of wages are particularly relevant in relation to the work attitudes and migration moods of the youth of the Russian Arctic and the changes in the pension sector: according to recent sociological studies, the modern pension reform had a negative impact on the migration attitudes of the Arctic youth: “*distrustful of the promises of a decent standard of living after retirement, most of them are concerned about the fact that, with a lower life expectancy than in developed countries, an additional five years of work will shorten life expectancy*” [26, Gushchina I.A., Yakovchuk A.A., pp. 63–64].

⁴⁵ Annual report on the progress of implementation and evaluation of the effectiveness of the state program of the Murmansk Oblast “Health Development” for 2020. URL: <https://minzdrav.government.ru/documents/programs/gosproject/gp-report/poyasnitelnaya-zapiska-2020.pdf> (accessed 17 February 2022).

⁴⁶ Ukomplektovannost' vrachami v Murmanskoy oblasti sostavlyayet 58% [Staffing with doctors in the Murmansk Oblast is 58%]. URL: <https://ria.ru/20190530/1555111266.html> (accessed 18 February 2022).

In addition to indicators of material well-being, the quality of life of the population is assessed by the level of comfort of living: housing conditions play a special role in shaping youth employment strategies and their migration moods. Today, more than 30% of the population of the Russian Arctic needs to improve their housing conditions, while providing housing for Arctic settlements is an acute problem that requires significant capital expenditures for the construction and maintenance of infrastructure [27, Pavlenko V.I., Kutsenko S.Yu., p. 53]. Almost 30% of housing⁴⁷ recognized as emergency is in the Arctic zone; about 80% of housing needs major repairs; 322 thousand people live in emergency housing. In the Yamalo-Nenets Autonomous Okrug⁴⁸, 10% of the housing stock is recognized as emergency and is subject to demolition, the annual rate of recognizing housing as emergency reaches 200 thousand square meters. (in the city of Salekhard, the average percentage of depreciation of preschool educational institutions is 99%; the city of Labytnangi has no central supply of clean drinking water; in the Priuralskiy municipal district, the level of depreciation of water disposal facilities is 53%, heat supply — 81%, water supply — 61%). In the Nenets Autonomous Okrug⁴⁹, only 40% of the housing stock is equipped with all types of amenities (in the city of Naryan-Mar, the deterioration of sewerage networks is 65%, water supply — 82%); 22.8% of families are registered as those in need of better living conditions. In the Murmansk Oblast, 30–50% of water does not reach consumers due to a high percentage of depreciation; heat losses in networks are 8%; the degree of depreciation of fixed assets in the production, transmission and distribution of steam and hot water, air conditioning — 79%, intake, purification and distribution of water — 55.7%⁵⁰.

The overall state of transport infrastructure does not provide the necessary quality of life in the regions of the Russian Arctic [28, Melnichuk V.A., Samarin A.M., p. 51]: the modern Arctic

⁴⁷ Arktika kak bol'shaya stroyploshchadka — no dlya kogo, i za kakie den'gi? [The Arctic is like a big construction site - but for whom, and for what money?]. URL: <http://ancb.ru/publication/read/11053> (accessed 18 February 2022).

⁴⁸ Osobennosti zhilishchnogo stroitel'stva v Arkticheskoy zone Rossiyskoy Federatsii [Features of housing construction in the Arctic zone of the Russian Federation]. URL: <http://council.gov.ru/activity/activities/roundtables/126006/> (accessed 18 February 2022); Strategiya sotsial'no-ekonomicheskogo razvitiya Yamalo-Nenetskogo avtonomnogo okruga na period do 2035 goda [Strategy for socio-economic development of the Yamalo-Nenets Autonomous Okrug for the period up to 2035]. URL: https://www.economy.gov.ru/material/file/8f625fc17c793fe19282005c51294d88/proekt_strategii.pdf (accessed 18 February 2022).

⁴⁹ Tipichnye problemy dlya regionov Arkticheskoy zony [Typical problems for the regions of the Arctic zone]. URL: <http://nvinder.ru/article/vypusk-no-20-21077-ot-4-marta-2021-g/91210-tipichnye-problemy-dlya-regionov-arkticheskoy> (accessed 18 February 2022); Otchet glavy munitsipal'nogo obrazovaniya "Gorodskoy okrug "gorod Nar'yan-Mar" o rezul'tatakh svoey deyatel'nosti i deyatel'nosti administratsii munitsipal'nogo obrazovaniya "Gorodskoy okrug "gorod Nar'yan-Mar" za 2020 god [Report of the head of the municipality "City District" City of Naryan-Mar "on the results of its activities and the activities of the administration of the municipality "City District" City of Naryan-Mar "for 2020]. URL: <https://www.adm-nmar.ru/vlast/glava-administratsii/> (accessed 18 February 2022).

⁵⁰ Na poteri v setyakh vodosnabzheniya predlozhili vvesti normativ [It was proposed to introduce a standard for losses in water supply networks]. URL: <https://kn51.ru/2020/10/13/na-poteri-v-setyah-vodosnabzheniya-predlozhili-vesti-normativ.html/> (accessed 04 February 2022); Zhilishchnoe khozyaystvo v Rossii — 2019 g [Housing in Russia – 2019]. https://gks.ru/bgd/regl/b19_62/Main.htm (accessed 04 February 2022).

transport system is characterized⁵¹ by underdevelopment and low technical condition of the transport network, high depreciation of rolling stock, etc. Thus, in the Zapolyarniy municipal district of the Nenets Autonomous Okrug, 92.1% of the population lives in settlements that do not have regular bus service to the administrative center⁵². In the Chukotka Autonomous Okrug, almost every settlement is isolated due to the lack of land transport infrastructure (with neighboring settlements and the district center): 100% of the population of the Anadyrskiy municipal district, 71.6% of the Chukotskiy district, 23.4% of the Bilibinsky district⁵³ live in settlements without regular transport communication with the administrative center.

The issues of transport accessibility are relevant in the aspect of supplying remote Arctic settlements with food and the formation of the necessary stocks of products and essential goods [29, Ivanov V.A., p. 601]. Thus, the supply of fresh food to the stores of the Iultinskiy district of the Chukotka Autonomous Okrug depends on sea supplies; at the same time, the specificity of the redistribution of products within the district is that during navigation periods, the stores of the district center are replenished with imported goods, while rural stores — with products that have not been sold in the district center and have expired [30, Davydova E.A., p. 38]. In case of interruptions in sea supplies, food is delivered by air, but the prices for “air deliveries” are 8-10 times higher than the prices for “navigation supplies”⁵⁴. This situation, along with limited agricultural opportunities due to the uncomfortable natural and climatic conditions of the Arctic, negatively affects the qualitative characteristics of the labor potential of the Arctic settlements: according to Rosstat⁵⁵, in Chukotka AO, the share of men who eat at least 400 grams of fruit and vegetables daily is only 1.66%, the share of women — 0.61% (for comparison, in Moscow Oblast — 12.55% and 11.68%, in the Russian Federation average — 10.59% and 11.61%, respectively).

Conclusion

An analysis of the socio-economic situation of young people in the regions of the Arctic zone of Russia shows that the “*problematic present*” has a negative impact on the qualitative characteristics of the labor potential of the Russian Arctic:

- high level of adolescent morbidity for certain classes of diseases, produced by the resource specificity of single-industry settlements;
- high proportion of low-income households with children;
- low level of living comfort, including unsatisfactory housing conditions, as well as low transport accessibility, limiting the possibilities of food supply for the Arctic settlements, and

⁵¹ Tendentsii razvitiya transportnoy infrastruktury rossiyskoy Arktiki [Trends in the development of transport infrastructure in the Russian Arctic]. URL: <http://rosacademtrans.ru/arktika/> (accessed 17 February 2022).

⁵² Database "Indicators of municipalities". URL: <https://rosstat.gov.ru/munstat> (accessed 12 January 2022).

⁵³ Ibid.

⁵⁴ Vlasti Chukotki dogovorilis' o dostavke prodovol'stviya na pyati sudakh [The authorities of Chukotka agreed on the delivery of food on five ships]. URL: <https://www.interfax.ru/russia/800205> (accessed 18 February 2022).

⁵⁵ Vyborochnoe nablyudenie sostoyaniya zdorov'ya naseleniya [Selective observation of the state of health of the population]. https://gks.ru/free_doc/new_site/zdor21/publishsite_2021/index.html (accessed 14 February 2022).

the possibility of obtaining services in the areas of employment, education and vocational training;

- opportunistic nature of youth employment; high level of youth unemployment among skilled workers and employees against the background of a low level of their employment, including employment for the first job associated with the profession or specialty received;
- selectivity of the operation of norms in the field of social and labor partnership in relation to employees of budgetary institutions at the regional and municipal levels due to the “*recommendatory*” nature of the relevant regulatory legal acts of the federal level, primarily in terms of setting official salaries. In this aspect, the issues of remuneration in the public sector are relevant, in particular, in the healthcare sector, where there is an acute issue, de jure, of the permanent part of wages — salaries, which should not include various types of compensatory and incentive payments (including northern allowances), de facto, about the variable part of wages — allowances, subjectively and with variable frequency, set by the heads of specific institutions, the amounts of which, firstly, depend on regional and municipal budgets, and secondly, it is several times less than the subsistence level of the able-bodied population.

Problems of this kind form the “*unpromising future*” of the regions and local communities of the Russian Arctic, negatively affecting the migration moods and life strategies of young people.

It is also necessary to focus on the fact that the main obstacles to a qualitative analysis of the socio-economic situation of young people in the Russian Arctic regions, limiting the possibility of developing effective directions for appropriate state policy measures, are the narrowness of the set of statistical indicators characterizing the socio-economic situation of youth, and the closeness of regional executive authorities and local governments in terms of providing information on certain aspects of the socio-economic development of regions and municipalities, and territorial employment departments in terms of providing information on the situation of youth in the labor markets.

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