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IBI (India) = 4.260
OAJI (USA) = 0.350

SOI: [1.1/TAS](#) DOI: [10.15863/TAS](#)

International Scientific Journal Theoretical & Applied Science

p-ISSN: 2308-4944 (print) e-ISSN: 2409-0085 (online)

Year: 2023 Issue: 11 Volume: 127

Published: 05.11.2023 <http://T-Science.org>

Issue

Article



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EDUCATION IS THE BASIC BASIS FOR THE SOCIAL AND ECONOMIC DEVELOPMENT OF THE REGIONS OF THE ARCTIC ZONE WITHIN THE FRAMEWORK OF THE ONP AND ZATO

Abstract: In the article, the authors analyze why in closed administrative and administrative units of the Arctic zone of the Russian Federation there is an acute problem of a shortage of qualified personnel in the economy, which the regional system of vocational education is designed to level out. The main subject to whom its functioning is directed are school graduates. In this regard, the problem of compliance with the capabilities of the vocational education system to accept and train, at the expense of budget funds, graduates of CATU and ONP schools in the regions of the Arctic zone is being updated. In the context of a shortage of personnel, a decrease in the number of young people among the population, and migration outflow from the Arctic zone of Russia, the issue of training the necessary personnel is especially relevant. In the study, a large place is occupied by the characteristics of the demographic situation and the position of youth in the labor market of the Arctic regions. The authors analyzed a large volume of statistical indicators, on the basis of which calculations were made that characterize the potential of the vocational education system of the subjects of ZATA and ONP and the regions of the Arctic zone. The study is based on general scientific methods, as well as methods of comparison and mathematical modeling. Thus, the article presents the potential of the vocational education system in ZATOs and ONPs and in individual regions of the Arctic zone of Russia for training personnel through the use of their own "regional capital" - school graduates of the 9th and 11th grades. Currently, unfortunately, without the introduction of new elements of the organization of vocational training, the vocational education system of most Arctic regions cannot provide the entire volume of school graduates with mastering the educational program in their native region.

Key words: Arctic zone of Russia; the youth; vocational education system, region; population; humanitarian development; education; personnel training.

Language: English

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Citation: Salfetnikova, M. I., Bilich, S. R., Blagorodov, A. A., Prokhorov, V. T., & Volkova, G. Yu. (2023). Education is the basic basis for the social and economic development of the regions of the Arctic zone within the framework of the ONP and ZATO. *ISJ Theoretical & Applied Science*, 11 (127), 67-76.

Soi: <http://s-o-i.org/1.1/TAS-11-127-11> **Doi:**  <https://dx.doi.org/10.15863/TAS.2023.11.127.11>

Scopus ASCC: 2000.

Introduction

UDC 332.74:339.72.

Due to the enormous size of the territory of the Russian Federation, uneven settlement and economic development, and large differences in monetary income, not all residents of our country have equal access to quality services in the field of education. This, firstly, violates their rights, and secondly, affects the labor potential of those territories where accessibility to educational services is reduced. A decline in the level of education limits the possibilities for innovative development. And this, in conditions of intense competition in the scientific and technological sphere, can weaken the position of the state on the world stage. The level of education of the adult population and education coverage are indicators adopted by the UN to assess the level of humanitarian development. Earlier studies by the authors prove that our country is largely able to maintain high positions in the ranking of countries in the world in terms of human development due to high indicators in the field of education. A decline in the level of education of the adult population and educational coverage of the population will inevitably entail a fall in Russia's ranking positions. In this regard, comparative regional studies devoted to assessing accessibility and identifying problems in the field of education seem very relevant. In areas with low population density, it is difficult to rationally organize the functioning of social infrastructure. Such territories include all regions of the Arctic Zone of the Russian Federation (AZRF). If in the Russian Federation the average population density is 8.6 people. per 1 sq. km., then in the regions of the Arctic zone this figure ranges from 0.07 people. per sq. km. in the Chukotka Autonomous Okrug and up to 5.2 people. per sq. km. in the Murmansk region. Therefore, it is not surprising that, for example, in the Nenets Autonomous Okrug with a population of 44 thousand people. and a population density of 0.25 people. per sq. km. there are no universities. But this does not mean that Russian citizens living in these territories may be limited in their ability to obtain high-quality higher education.

Based on official statistics, we will try to assess the degree of physical accessibility of education for residents of Russian regions with extreme climatic conditions that are part of the Russian Arctic, including ZATA and ONP.

At the beginning of 2022, the coverage of children with preschool education in all Arctic regions, with the exception of the Krasnoyarsk Territory, was significantly higher than in the country as a whole: from 64% in the Krasnoyarsk Territory to 90% of children of the corresponding age in the Chukotka Autonomous Okrug, with an average level of this indicator in country 66.5%. If in the Russian Federation as a whole, per 1000 children there were 633 places in organizations carrying out educational activities in educational programs of preschool education, childcare and supervision, then in most Arctic regions this figure exceeded 700, and in the Chukotka Autonomous Okrug There were more places in such organizations than there were preschool children. The structure of personnel training in the Arctic regions has its own characteristics, namely: firstly, in the regions of the Russian Arctic, the number of students enrolled in training programs for skilled workers per 10,000 population is significantly higher than the average in the Russian Federation (Table 1).

So, if in the Russian Federation as a whole this figure in the 2020/2021 academic year. year was 38 people, then in most Arctic regions it exceeded 45 people, and in the Arkhangelsk region it reached 69 people. The only exception is the Chukotka Autonomous Okrug. In the Yamalo-Nenets Autonomous Okrug, the indicator under consideration is close to the Russian average. The number of students enrolled in training programs for mid-level specialists per 10,000 population in the regions of the Russian Arctic is approximately the same as in Russia as a whole. In the Yamalo-Nenets and Chukotka Autonomous Okrugs, this indicator is significantly lower than the Russian average; in the Republic of Sakha (Yakutia) it is 1/3 more than in the country as a whole. And in terms of the number of students enrolled in bachelor's, specialist's, and master's programs, the Arctic territories lag far behind other Russian regions. If on average in the country per 10,000 people. population in 2021 accounted for 289 people. students studying in higher education programs, then in the Arctic regions the value closest to the average level was typical for the Krasnoyarsk Territory - 267 people. In the Chukotka Autonomous Okrug, the indicator in question was 8 times less, in the Yamalo-Nenets Autonomous Okrug - 16 times less than the Russian average, and in the Nenets Autonomous Okrug there are no universities at all.

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Table 1. The number of students enrolled in training programs for skilled workers, office workers, mid-level specialists, bachelor's, specialist's, and master's programs in the Arctic regions of Russia in the 2021/22 academic year t (per 10,000 population)

Region	Number of students enrolled in programs		
	Preparation skilled workers, employees	preparation mid-level specialists	bachelor's degree specialty, master's degree
<i>RUSSIAN FEDERATION</i>	38	163	289
<i>Northwestern Federal District</i>	38	148	301
Republic of Karelia	45	164	187
Komi Republic	59	186	195
Arhangelsk region	69	161	164
including:			
Nenets Autonomous Okrug	63	184	-
Murmansk region	40	179	117
<i>Ural federal district</i>	39	184	262
Yamalo-Nenets Autonomous Okrug	36	135	18
<i>Siberian Federal District</i>	48	182	287
Krasnoyarsk region	56	182	267
<i>Far Eastern Federal District</i>	46	189	249
The Republic of Sakha (Yakutia)	56	217	248
Chukotka Autonomous Okrug	10	148	35

As for the material accessibility of education for residents of the Arctic Zone of Russia, a comparison of basic income indicators also indicates weaker opportunities for Russians living in extreme climatic conditions and providing a significant portion of federal budget revenues to receive education, since the standard of living in most of these regions is significantly lower than in the country as a whole. Rosstat data show that real cash incomes of the population of most Arctic regions Russia in 2018–2021 noticeably lagged behind the Russian average. In the Republic of Karelia, the Arkhangelsk and Murmansk regions, the Krasnoyarsk Territory, a lower increase in the indicator was recorded during this period, and the Komi Republic, the Nenets Autonomous Okrug and Murmansk region – strong fall in real incomes of the population. And the proportion of the population living below the poverty line in many regions of the Arctic Zone of Russia in 2021 was significantly higher than in the country as a whole (we are talking about the Republic of Karelia, the Komi Republic, the Krasnoyarsk Territory, the Republic of Sakha (Yakutia).

Main part

The education system plays an integral role in the integration of youth as a social group into the system of social reproduction and the transfer of knowledge and experience between generations. The

organization and functioning of the regional education system are determined by the state and dynamics of socio-economic processes. On the one hand, the personnel needs of the region's economy, reflected in the education system, influence the main ratios of the number of students receiving vocational education at different levels. On the other hand, youth act as the subject of the educational process, thereby realizing their interests and needs for personal and professional self-realization. In the context of the formation of coherence between the interests of the economy and the education system, it is necessary to pay attention to all stages of an individual's educational trajectory: general education, secondary vocational, higher, postgraduate and additional. At the same time, the issue of ensuring that the regional education system meets the needs of the individual and the economy is important. If the educational needs of individuals may be unstable and be realized through educational migration and adjustments to educational plans, then adjusting the personnel needs of the economy is a complex multidimensional process that affects the interests not only of the region as a whole, but also of its main actors - the business community, especially the leading employers of the region, social sphere, etc.

For the Arctic regions, in the context of the current personnel shortage and the implementation of large-scale investment projects, the study of the potential of the vocational education system for

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training personnel is especially relevant. For the dynamically developing Arctic territories, the problem of matching the potential for training professional personnel by the regional education system with the volume of graduates of the general education system is relevant, that is, to what extent the regional education system can provide training for specialists using the existing contingent. When ensuring the training of specialists by the regional education system, it is important to pay attention to the variety of educational programs and their compliance with the needs of the economy for personnel and the demands of applicants, so that potential students remain to study in their native region, and thereby minimize the volume of educational migration to other constituent entities of the Russian Federation. According to a study by the Higher School of Economics, the rate of post-graduate migration in the Murmansk region and the Komi Republic is 27%, in the Republic of Karelia this share reaches 33% (that is, a third of university graduates in the region are employed in other constituent entities of the Russian Federation), in the Republic of Sakha (Yakutia) - 23%, in the Krasnoyarsk Territory - 20% (every fifth graduate), in the Arkhangelsk Region this figure is higher - 38%.

In this regard, the purpose of these studies is to analyze the potential of the vocational education system in ZATOs and ONP regions of the Arctic zone of Russia for personnel training through the use of their own "regional capital" - school graduates of the 9th and 11th grades.

The study of the potential of the regional vocational education system of the Arctic regions was carried out based on the analysis of official statistical indicators and calculations of the authors of the article. The study used classification, comparison and modeling methods. The emphasis is placed on youth as the main social group - the consumer of educational services in the conditions of formation of personnel supply in the economy of the Arctic regions. Young people as a social group are interpreted ambiguously for various reasons. In this study, the authors rely on the concept enshrined in federal legislation, where youth is defined as "a socio-demographic group identified on the basis of age characteristics, social status and characterized by specific interests and values. This group includes persons aged 14 to 30 years, and in some cases, up to 35 years." The main distinctive social quality of youth lies "in its ability to inherit, reproduce on a qualitatively new basis and transmit to the next generations the entire system of social relations." By realizing their aspirations for self-development and self-realization, young people become the main factor in the development of the economy and staffing of the Russian Arctic zone. What is the reason for such a high migration of

graduates of universities and secondary specialized institutions in the regions of the Arctic zone? The position of young people in the labor market is characterized by their involvement in labor relations and "the ability to be the subject of significant economic strategies." Modern research shows that work remains the main factor in the personal self-determination of most young people. The formation of a policy for staffing the economy of the Arctic zone of Russia is taking place in the context of a reduction in the number of young people due to a systemic demographic crisis, which is a nationwide problem. Forecast data from Rosstat indicate a reduction from 27% in 2005 to 18% in 2027 in the representation of the age group aged 14–30 years in the total population of the country. Then a slight increase in the number of young people is expected, the share of which in 2035 will be 20.9%, which is 7% lower than the base figure in 2005. The regions of the Arctic zone repeat the Russian trend of a share reduction in the number of youth, while the situation is aggravated by the outflow of young people for reasons of interregional and foreign migration. On average, in the Arctic zone from 2007 to 2022, the number of young people decreased by a third (33.1%), the reduction in Russia as a whole is slightly larger and amounts to 36.9%. A significant decrease in youth in the Arctic regions in 2022 compared to 2007 is observed in the constituent entities of the European part of the Arctic zone, where the largest reduction was recorded in the Komi Republic and the Arkhangelsk region. A smaller reduction in the number of young people (in comparison with the all-Russian and all-Arctic trend) in the period under review was recorded in the regions.

The share of youth in relation to the number of employed population determines the potential staffing opportunities in the region. A consequence of the trend towards a reduction in the number of young people is a change in the structure of the employed population of the Arctic regions in favor of older workers. According to data for 2019, the share of youth in the Arctic regions aged 15–29 years in the structure of the population employed in the economy was 18.4%, which is slightly lower than the total share in the Russian Federation, where this figure is 19.5% (Figure 1). Only in the Republic of Sakha (Yakutia) and the Krasnoyarsk Territory the share of young people among the employed population in 2019 was higher than the Arctic and Russian indicators - 22.9% and 21.4%, respectively, while in 2007 the share of young people in these regions in the general structure of the employed population was even higher and amounted to 23.1% and 26.3%. On average, for individual Arctic regions at the macro-regional level and in Russia, the decrease in the share of youth in 2019 compared to 2007 was 8.5%.

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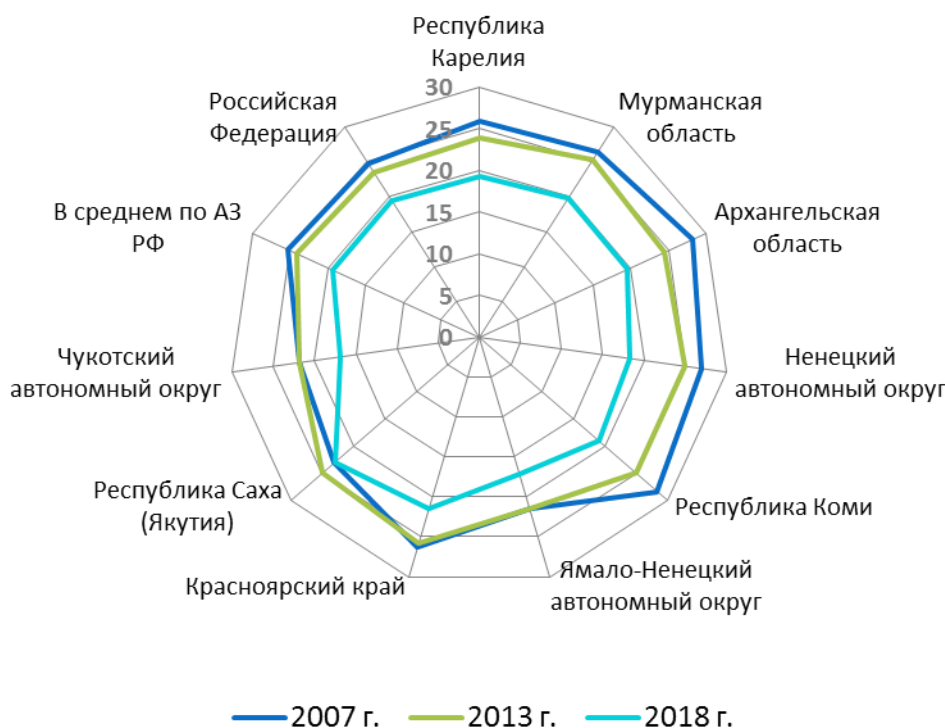


Figure - 1 Share of youth aged 15–29 years in the economically employed population of the regions of the Arctic zone of Russia, % 2013; 2018; 2021

Another important aspect of assessing the situation of youth in the labor market of the Arctic regions is the unemployment rate. This indicator is calculated both according to the methodology of the International Labor Organization and according to the official registration of unemployed citizens in the Employment Services. According to these approaches, the assessment of unemployed youth in the Arctic regions differs.

In accordance with data calculated using the methodology of the International Labor Organization (ILO), in 2019, compared to 2007, all Arctic regions showed a positive trend in reducing the number of unemployed young people. In some regions, the number of unemployed youth decreased by 2 times (Arkhangelsk Region, Krasnoyarsk Territory and the Komi Republic compared to 2007). At the same time, in accordance with the ILO methodology, in the general structure of unemployed citizens, every third unemployed citizen is a young person under the age of 30, and in the Chukotka Autonomous Okrug this share reaches almost half and amounts to 48.6% (Figure 1). It was previously noted that in the Arctic macroregion only every fifth person employed in the economy is a young person aged 15–29 years.

It should be taken into account that, according to the ILO methodology, the unemployed also include young people studying in the vocational education system on a full-time basis, who at the same time “were looking for work and were ready to start it.” At

the same time, the main social status of this category is studenthood. Thus, ILO unemployment indicators do not fully reflect the real situation in the youth labor market. A more objective picture is reflected in the data of the Employment Services, in which young people are officially registered as unemployed citizens, and accordingly, have the basic social status of the unemployed. For example, in the Arkhangelsk region, among the registered unemployed in 2018, 22.3% were young people aged 16–29 years, which is 10.9 percentage points less than the 2007 figure. A similar situation is developing in other Arctic regions, where the share of young people among the officially registered unemployed is 17.3% in the Krasnoyarsk Territory, 17.5% in the Republic of Karelia, 17.4% in the Arkhangelsk Region, and 17.4% in the Republic of Sakha (Yakutia) – 22.5%. In certain Arctic municipalities of subjects partially included in the Arctic zone, the proportion of young people among officially registered unemployed citizens is generally similar to the regional situation - in the municipalities of the Arkhangelsk region there are 17.2% of unemployed young people (of the total number of officially registered unemployed), in Krasnoyarsk Territory - 24% and in the Republic of Karelia - 14%. The share of unemployed youth in the structure of the employed population of all Arctic regions does not exceed 1%: in the Arkhangelsk region it is 0.6%, in the Krasnoyarsk region - 0.1%, in the Republic of

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Karelia and Yakutia - 0.4% each, and in the Chukotka region Autonomous Okrug - 0.9%.

In modern conditions of a rapidly changing world, young professionals can occupy stable positions in the priority sectors of the economy of the Arctic regions due to the relevant knowledge and skills acquired during primary training, which contributes to the increased need among senior workers for advanced training and obtaining additional skills within the framework of the concept of lifelong education. Thus, the position of young people in the labor market in closed administrative and administrative territories of the Arctic regions is characterized by greater representation among the employed population and a smaller share among unemployed citizens. In the context of a personnel shortage in the economy of the Arctic regions, the question of the possibility of training the personnel necessary in the economy and, as a consequence, their demand remains relevant. The main resource for the vocational education system is graduates of the 9th and 11th grades. The professional fulfillment of a future young specialist depends on the availability of educational organizations, the variety of areas of training, and the sufficiency of the number of places to admit future applicants. Thus, an ideal model for the functioning of the education system should take into account both the interests of future students and the personnel needs of the regional economy. The vocational education system of the Arctic zone of Russia is represented by organizations of higher and secondary vocational education, as well as interregional centers for advanced training. However,

the network of vocational education organizations in the Arctic zone of Russia is heterogeneous regionally. Most higher education organizations are concentrated in the European part of the Arctic zone. There are federal universities in the Arkhangelsk Region, the Republic of Sakha (Yakutia) and the Krasnoyarsk Territory. However, the territories of these regions partially belong to the Arctic zone, and it is in the "Arctic part" of these regions that the network of professional educational organizations is less widely represented. The exception is the Arkhangelsk region, where the network of vocational education organizations, especially higher education, is concentrated in the capital and large industrial cities included in the Arctic: here in 2019, 78.5% of students received higher education and 62% received secondary vocational education, studying in educational institutions. organizations located in the Arctic zone (Table 2).

Among the regions that are entirely included in the Arctic zone, the most notable is the vocational education system of the Murmansk region, which in 2019 accepted more than 5 thousand students in 165 areas of training (specialties) of bachelor's and specialist degrees. In the Nenets Autonomous Okrug there are no higher education organizations that provide training at the expense of budgetary funds or full-time education, and enrollment in secondary vocational education programs is less than 300 people. In the Yamalo-Nenets and Chukotka Autonomous Okrug, the higher education system provides training in university branches in only one technical specialty.

Table 2. Number and enrollment of educational organizations of higher and secondary vocational education, taking into account branches by regions and territories of the Arctic zone of Russia, 2019

Name of the subject of the Russian Federation AZ	Characteristics of the vocational education network			
	VO for the region as a whole	VO for territories included in ZATO and ONP AZ RF	SPO for the region as a whole	SPO for territories included in ZATOs and ONPs in the AZ of the Russian Federation
Regions whose territories are fully included in the AZ of the Russian Federation				
Murmansk region	#OO	3	thirty	
	*	1061 people 66 NPCs each	4037 people 99 NPCs each	
Nenets Autonomous Okrug	#OO	0	3	
	*	0	292 people 15 NPCs each	
Yamalo-Nenets Autonomous Okrug	#OO	3	12	
	*	13 people, 1 NPC each	1905 people 60 NPCs each	
Chukotka Autonomous Okrug	#OO	1	4	
	*	15 people 1 NPC each	271 people 11 NPCs each	
Regions whose territories are partially included in the AZ of the Russian Federation				

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Arhangelsk region	#OO	6	5	50	25
	*	3283 people	2627 people 68 NPCs each	7742	4801 people 126 NPS each
Republic of Karelia	#OO	4	0	20	1
	*	2056	0	2444	22 people 8 NPCs each
Komi Republic	#OO	6	2	39	6
	*	2199	48 people 4 NPCs each	4837	458 people 30 NPCs each
Krasnoyarsk region	#OO	17	1	126	7
	*	11419	188 people 10 each NPC	16552	756 people 40 NPCs each
The Republic of Sakha (Yakutia)	#OO	16	0	64	4
	*	4173	0	6747	234 people 12 NPCs each

Legend:

#OO – number of educational organizations of vocational education; * – admission to state educational organizations for full-time study at the expense of the budget, taking into account branches for undergraduate and specialist training programs.

The territories of regions partially included in the Arctic zone are least provided with educational organizations. Thus, in the Krasnoyarsk Territory there are 17 universities and 126 colleges and technical schools, of which in the Arctic there are only 1 university and 7 vocational education organizations, which received 6.2% of the total admission of students for the first year of full-time study at the expense of the budget. In the Republic of Karelia, out of 20 educational institutions of secondary vocational education, only one operates in the Arctic municipality, and in the Republic of Sakha (Yakutia), out of 64, only 4. At the same time, enrollment in these educational organizations of the total enrollment in the region is less than 5%.

Due to the trend of declining youth numbers, the potential student population for higher and secondary education systems is also decreasing. Compared to 2007 indicators, student enrollment in state educational institutions of higher education in the Murmansk region decreased by 3.8 times, in the Komi Republic - by 2.3 times, and in the Arkhangelsk region - by 2.2 times. In the Nenets Autonomous Okrug since 2008, in the Chukotka Autonomous Okrug since 2017, there is no admission of students for the first year of study at state educational organizations.

In the context of a reduction in the number of young people and, as a consequence, the volume of student enrollment in vocational education organizations, the issue of the ability of the education system to provide training for its own school graduates in the region is relevant. The potential of the

vocational education system of the Arctic regions was assessed on the basis of statistical data on admission, contingent and graduation of students in general educational organizations of the region (graduation of 9th and 11th grades, contingent of students in 10th grade), admission to educational organizations of higher and secondary vocational education for the first year on a budgetary basis for full-time study.

Thus, the potential of the regional vocational education system (higher and secondary vocational education) is understood as the ratio of graduation from the 9th grade (with the exception of admission to the 10th grade) plus graduation from the 11th grade to admission to full-time educational organizations of higher and secondary education training for budget places.

In general, if we consider the Arctic macro-region, the vocational education system can ensure the admission of potential applicants for mastering educational programs. In individual regions and Arctic territories, the potential of the vocational education system varies significantly. If we consider the Arctic regions as a whole, then the regional education systems of the Krasnoyarsk Territory and the Republic of Sakha (Yakutia) stand out from others, which can provide vocational education not only to their school graduates, but also to graduates from other constituent entities of the Russian Federation (the indicator is 1.28 and 1.17, respectively). Graduates of schools in the Arkhangelsk region, the Republic of Karelia and the Murmansk region can also sufficiently apply for vocational education in their native region (Fig. 5). It is necessary to take into account that the listed subjects of the Russian Federation, with the exception of the Murmansk region, are partially part of the Arctic zone of Russia, therefore it is necessary to consider the potential of the vocational education system also separately for the

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Arctic territories. Here, the potential of the vocational education system is sufficient to provide education to school graduates only for the territories of the Arkhangelsk region, for which the indicator is 1.09. This high figure is due to the fact that the Arctic zone of the Arkhangelsk region includes municipalities in which most of the professional educational organizations are concentrated, including the Northern (Arctic) Federal University named after M. V. Lomonosov.

Applicants (graduates of 9th and 11th grades) from the Arctic territories of the Krasnoyarsk Territory, the Komi Republic, the Republic of Sakha (Yakutia) cannot fully satisfy the need for obtaining vocational education in their home municipality, therefore they are forced to move to another area, most often the capital or get an education in another region. In the Republic of Karelia, school graduates are forced in advance to form an educational migration track, focused either on getting an education in the capital of Karelia or in another subject, since the potential of the vocational education system in the Arctic territories is 0.

In regions that are territorially completely included in the Arctic zone of Russia (Yamalo-Nenets, Nenets and Chukotka Autonomous Okrugs), with the exception of the Murmansk region, the vocational education system can only accept half of the graduates of the 9th and 11th grades; the remaining graduates are forced to build an educational trajectory in other Russian regions.

It should be noted that the presented indicator of the potential of the regional vocational education system represents an ideal type of model, since the condition is assumed that all graduates of the 9th grade, with the exception of those who continued their studies in the 10th grade, entered educational organizations of secondary vocational education, and graduates of the 11th grade entered educational organizations of higher education. In objective reality, the potential of the higher education system in the Arctic regions is even less, since it is necessary to take into account the fact that 11th grade graduates can receive education in secondary vocational education programs. If you pay attention to the statistics, then in the Republic of Sakha (Yakutia) the share of graduates of the 11th grade of the region of the current year of graduation who entered educational organizations of secondary vocational education in the same year is 31.8%. 16.4% of 11th grade graduates entered universities; the remaining graduates (51.8%) did not choose the regional vocational education system. In the Arctic territories of the Republic of Sakha (Yakutia), the share of graduates who entered colleges and technical schools is 3.4%, the remaining 96.6% of 11th grade graduates left the Arctic regions to receive education either in their native region or beyond. Thus, every second 11th grader drops out of the regional vocational education system of the Republic

of Sakha (Yakutia). It should be noted that data is presented on the inclusion of 11th grade graduates in the regional vocational education system of the 2019 graduates this year. Among these graduates there may also be a proportion of those who were drafted into the ranks of the Armed Forces of the Russian Federation (at the same time, for young people who successfully passed final exams, a deferment is provided for the current year), or did not continue their studies in the vocational education system this year. As a rule, the total share of such reasons is no more than 10% of the total graduation rate: the all-Russian trend in the distribution of school graduates by educational track.

A similar situation with the Republic of Sakha (Yakutia) has developed in the Republic of Karelia, the Komi Republic and the Krasnoyarsk Territory. In these regions, approximately half of 11th grade students are also not included in the regional vocational education system, with the exception of the Komi Republic, where this share reaches 70.1%. At the same time, almost all 11th grade students in the Arctic territories leave their area to receive vocational education. In the Arkhangelsk region, half of the 11th grade graduates (53.2%) from the Arctic territories enter universities, every third graduate chooses the secondary vocational education system, and every fifth graduate does not enter the vocational education system. The majority of 11th grade graduates leave the Chukotka (88.7%), Yamalo-Nenets (98.2%) and Nenets (84.7%) autonomous okrugs to receive vocational education due to its limited or non-existent nature. As a rule, the preferred regions for training are Moscow and St. Petersburg or neighboring regions. In the Murmansk region, 14.6% of 11th grade graduates entered universities and 5.3% chose colleges and technical schools, the remaining 80% were not included in the regional vocational education system.

Conclusion

Thus, the analysis of the main indicators of educational coverage of residents of the Arctic regions of Russia, based on official statistics, allows us to speak about reduced physical accessibility of higher education for residents of the Arctic regions. The financial accessibility of education is also lower than in the country as a whole, due to the lower living standards of the population of most regions of the Arctic Zone of the Russian Federation, including ZATOs and ONP. The availability of services in this area is also reduced by the remoteness of the Arctic territories from the federal centers of science and education. To solve the problem of accessibility to high-quality higher education and eliminate inequality in this area, we consider it appropriate to allocate budget places for residents of these regions, introduce preferential educational loans, subsidized flights and other measures that will allow young people from the regions of the Russian Arctic to receive higher education and return to their small homeland ,

Impact Factor:

SISRA (India)	= 6.317	SIS (USA)	= 0.912	ICV (Poland)	= 6.630
ISI (Dubai, UAE)	= 1.582	ПИИИ (Russia)	= 3.939	PIF (India)	= 1.940
GIF (Australia)	= 0.564	ESJI (KZ)	= 8.771	IBI (India)	= 4.260
JIF	= 1.500	SJIF (Morocco)	= 7.184	OAJI (USA)	= 0.350

strengthen its labor potential. The implementation of the proposed measures will create conditions for improving the quality of life of people living in such difficult climatic conditions and will contribute to the sustainable development of these territories that are strategically important for the country.

Thus, for the development of the economy of the Arctic zone of Russia, the implementation of large-scale investment projects, and the functioning of priority development territories, it is necessary to pay close attention to the training and development of youth as the main social group for the reproduction of the current and potential human capital of the region. Because of this, it is necessary to approach this issue systematically, considering the demographic situation, the situation of young people in the labor market and the vocational education system.

The systemic all-Russian demographic crisis also affected the number of youth in the Arctic regions, demonstrating a steady downward trend. The situation of youth in the labor market of the Arctic regions generally reflects the all-Russian trend, while there are fewer unemployed youth in the Arctic regions.

A condition for the success of the formation of current and future staffing for the Arctic economy is the ability of the vocational education system to provide regional school graduates with a profession. The network of the vocational education system in the Arctic regions is unevenly represented: in some regions there is no training in higher education programs at the expense of the budget, and in some Arctic territories (in municipal areas) there are no educational organizations for vocational education at all.

The vocational education system of most Arctic regions cannot provide the entire volume of school graduates with mastering the educational program in their native region. The exceptions in this case are the Arkhangelsk region, the Republic of Sakha (Yakutia) and the Krasnoyarsk Territory.

However, even in these regions, the territories belonging to the Arctic zone of Russia lag behind the general regional trend.

The vocational education system needs to be modernized and put into practice new approaches to providing the economy of the Arctic regions with in-demand qualified personnel through the opening of new areas of training / specialties in existing educational organizations that meet the needs of the region's leading employers. In this case, an integrated approach to targeted training is needed not only in educational organizations of the native region, but also in organizations of other Russian regions, which

would allocate quotas for admitting applicants from the Arctic regions.

At the same time, it is not practical to fully provide school graduates with vocational education through targeted training in other regions due to the uncompensated nature of educational migration and the imperfection of the institution of targeted training itself.

Maintaining the vocational education system at the expense of budgetary funds is expensive for the state. The level of estimated budgetary provision for 2020 shows that the index of budgetary expenditures for the subjects of the Arctic zone of Russia significantly exceeds the average Russian value, and for a number of regions of the Arctic (Republic of Sakha (Yakutia), Chukotka and Nenets Autonomous Okrugs) the difference ranges from 3 to 8 times. This means that training qualified personnel in universities and colleges in the regions of the Arctic zone is significantly more expensive than in other regions of the Russian Federation. At the same time, achieving the stated national priorities for the development of the Arctic through the development of natural resources simultaneously with the socio-economic development of the Arctic territories is impossible without large investments in the creation and development of a vocational education system.

The countries of Northern Europe show successful experience in the integrated development of Arctic territories. For example, in the province of Lappi in Finland (Lapland), where about 200 thousand people live, there are the University of Lapland and 5 colleges that have branches even in small northern cities and towns. In Norway, in the Arctic province of Nordland with a population of 240 thousand people, Nord University has been operating since 2009, where students study 12 thousand students, including many citizens of other countries.

A priority in the creation and development of a vocational education system in the Russian Arctic may be training in the most in-demand social professions - nurses, paramedics, doctors, kindergarten teachers, secondary school subject teachers, and managers. It is relevant to train qualified workers for representatives of indigenous peoples of the North (reindeer herders, fishermen, plague workers, artisans).

Also, the capabilities of the information (digital) society will make it possible to significantly reduce the costs of organizing vocational education in closed administrative towns and educational units of the Arctic territories of the Russian Federation, since it is possible to attract qualified teaching staff through remote technologies.

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