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Local Governance and Public Wellbeing

Comparing Russian and German Examples

Nomos

This graph shows professors' assessments of the innovative potential of first year and fourth year students in university.

Conclusion

Although the school develops some qualities of an innovative personality, but the quality is rather low. Therefore, there is a large gap between school graduates and university ones. The university is an active player in developing an innovative personality, according to the professors. Young people are the most economically active group of the population. Young people with high level of innovative potential accelerate the socio-economic development of the region and can be involved in solving socially significant problems. Therefore, the innovative potential of young people can and should be involved in the socio-economic development of the region.

Based on the results of the research, it is planned to develop a project to intensify the innovative potential of young people in the districts of the Republic of Karelia, where the respondents indicated the low level of developing the innovative qualities and competences. The research will be continued, as the phenomenon of innovative potential of young people requires further and deeper study. The level of innovation potential of young people is influenced by the several factors: the awareness of young people themselves of the innovations and the major trends in society, the socio-economic development of the state and the region, the informatization of society, the acceleration of the social progress pace, the level of professional information culture of an individual, and many others, which make the research subject complex and multidimensional.

Additional Reading

Government of the Republic of Karelia 2017: The state program of the Republic of Karelia "Formation of the modern urban environment for 2018-2020", approved by the Decree of the Government of the Republic of Karelia of August 31, 2017. No. 301-P, http://docs.cntd.ru/document/465414512 (31/05/2019) (in Russian).

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Vocational Guidance Lesson as an Innovative Tool for Youth Attraction to the Russian Arctic and the Far East including the Example of the Republic of Karelia[1]

Anna Simakova, Maria Pitukhina and Irina Stepus

Abstract: The article presents the regional vocational guidance program for pupils between grades 8 and 10 in the Republic of Karelia; "Live, learn, work in Karelia!". This vocational guidance program was developed by the authors and has been operating for three years already in the Republic of Karelia and the majority of Karelian schools participate at this event including remote rural schools. The goals of the vocational guidance lesson are: to convince local youth to stay in the Russian Arctic and the Far East, to attract human resources and youth to the Russian Arctic and the Far East, and to develop a positive image of these regions in terms of youth wellbeing and professional opportunities.

Vocational guidance lessons like this not only provide interactive vocational guidance resources but also advise pupils on perspective occupations both in forms of "professiongrams"[2] and "occupational barometers"[3]. This approach to vocational guidance allows pupils to form an understanding of their professional future, or to choose an appropriate major and even a potential employer.

The Karelian lesson has also served as the model for a larger project at the federal level entitled "Start Your Career in the Russian Arctic and the Far East." This federal vocational guidance lesson was enacted in 2019 and covered 25 Russian regions and almost 50,000 pupils from 755 schools.

A diagnostic survey following this guidance lesson to gather feedback from participants has showed that pupils' interest towards Arctic and the Far Eastern labor market and their perspective occupations has significantly increased after receiving information within vocational guidance lesson. Incentivizing and nurturing a desire to work in the Arctic or the Far East is an important element in the system of human resource recruitment of these regions in terms of both current and projected labor needs. Graduates from donor regions who start their careers in the Artic or Far East are an enormous human resource to these regions.

Keywords: vocational training, human resources, Karelia, pupils, survey

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1 The article was prepared within the framework of 2 projects: "Start your career from the Arctic and the Far East" financed by the Presidential Foundation for civil society and RFFI grant "Live, Work or Leave! Youth – wellbeing and the viability of (post)extractive Arctic industrial cities in Finland and Russia".

2 Professiogram is an infographic on occupations presented in a concise and visualized manner. Professiograms contain a general description of occupation, a description of soft and hard skills, situation in a labor market (high/low demand, level of wages, list of employers' vacancies etc.).

3 Occupational barometer is an infographic on occupations presenting occupations which are in balance, proficit/deficit at municipal labor market.

Introduction

The idea for a vocational guidance lesson was born three years ago at Petrozavodsk State University in the Republic of Karelia. Brand new vocational guidance tools such as "occupational barometers" and "professiograms" were piloted on the web-portal http://mycareer.karelia.ru/.[4] In March 2019, the Republic of Karelia held the "Third Republican Vocational Guidance Lesson" as part of the federal lesson "Start Your Career in the Russian Arctic and the Far East." This third republican vocational guidance lesson was organized and conducted at 106 schools amounting to half of all schools located in Karelia. 7,558 of pupils, mainly from grades 8–10, took part in the third republican vocational guidance lesson from all Karelian municipalities.

In 2018, the idea of a vocational guidance program scaled up into a huge federal project entitled "Start your career in the Russian Arctic and the Far East". The project was supported financially by the Presidential Grants Foundation for Civil Society. In total, 50,000 pupils from the Arctic and Far East regions of Russia took part in this program using the web portal http://dv-arctic.labourmarket.ru.[5]

Federal Vocational Guidance Lesson as a Tool for Youth Attraction to the Russian Arctic and the Far East

The Russian Arctic zone and the Far East are two geostrategic territories of the Russian Federation in terms of both national security and economic development. The Russian government has declared the Far East to be "a national priority for the whole XXI century", and the Arctic – "the most important region of the future, determining both the power and capabilities of Russia for this and the next century."

So called "flagship zones"[6] in the Arctic region, and 'advanced socio-economic territories' in the Far East are currently sites of large-scale investment projects intended to spur socio-economic development in these regions.

It is intended that by 2025 the Far Eastern Federal District will include 18 territories of advanced socio-economic development and 5 free ports. A total of 1,375 projects and 3.8 trillion rubles for investment were announced with the intention of creating 134 000 new jobs in the region. As for the Russian Arctic zone, 145 large-scale investment projects amounting to 5 trillion rubles in investment are planned as well as the creation of 70,000 new jobs.

Both the Far East and the Russian Arctic face serious demographic challenges to their development. More than 20 percent of the population left the Far East during the post-Soviet period.[7] This outward migration continues to be a challenge today despite measures taken by the government. Most of those leaving are people of active working age with vocational training[8]. This trend is especially troubling given this demographics' importance for the implementation of the aforementioned development projects.

Figure 1: Territories of the Russian Arctic zone and the Far East

Source: own compilation. http://dv-arctic.labourmarket.ru/.

Thus, the question arises; who will develop the Arctic and the Far East? Nowadays the focus is on youth as the most mobile, creative, and ambitious social group ready to meet the challenge. Recruitment campaigns focus largely on middle school and high school pupils who are ready and willing to consider perspective occupation in the Arctic and Far East regions.

In order to attract youth from outside regions as well as retain local youth, the recruitment efforts highlight the specific occupations, salaries, living and working conditions, and social guarantees available in the regions. The use of professional self-determination services and programs are a key factor in making pupils aware of the potential career opportunities available in the region.

Because of these factors, the stakes for the federal vocational guidance program "Start Your Career in the Russian Arctic and the Far East" are extremely high. The principle goal of the program is build a more positive image of the regions by impressing on pupils between 8–10 grade the potentially prestigious career opportunities available in the Arctic and Far East. This in turn would bolster the potential of development in these geostrategic territories.

4 Live, study, work in Karelia. http://mycareer.karelia.ru/ (30/03/2020).

5 Start your career in the Russian Arctic and the Far East. http://dv-arctic.labourmarket.ru/ (30/03/2020).

6 Flagship zone is a territory of the Russian Arctic engaged in a large number of investment projects aimed at complex socio-economic development.

7 *Gurtov, V./Stepus, I./Shabaeva, S.* 2019: Vypuskniki vuzov na rynke truda Dal'nego Vostoka // Vysshee obrazovanie v Rossii. 2019. T. 28. No. 12, pp. 36–52. https://doi.org/10.31992/0869-3617-2019-28-12-36-52 (30/03/2020).

8 *Federal State Statistic Service of the Russian Federation* (GKS) 2019: Raspredelenie migrantov po vozrastnym gruppam (chislo vybyvshih 2010–2019) [jelektronnyj resurs] // Federal'naja sluzhba gosudarstvennoj statistiki. https://showdata.gks.ru/report/278986/ (30/03/2020).

Federal Vocational Guidance Lesson Toolkit

The federal vocational guidance programs cover 18 regions of the Russian Arctic and Far East as well as regions which have traditionally contributed youth to the Arctic and Eastern work forces. On December 17, 2019 a round table discussion called "Legislative mechanisms of youth attracting to the Arctic and the Far East" was organized by the State Duma to discuss the program.

The growing digitalization of society poses new challenges for the promotion of vocational training. The increased ubiquity of digital and mobile technology means that society is changing and the demands of consumers and youth for mobile and web services have grown. Youth in particular see digital resources as their primary source of information and such trends must be considered in attempts to engage them. In order to address this, Petrozavodsk State University (with the authors) developed a web-portal to promote the federal vocational guidance program at http://dv-artic.labourmarket.ru/. The portal acts as an interactive digital tool which allows pupils to explore perspective occupations in the Arctic and the Far East. The web-portal contains evaluations for pupils to explore their personal and professional preferences. For each of the 18 regions in the Arctic and the Far East regions, specific infographic passports were developed containing information about that region's employers, schools, and perspective occupations. The web-portal also provides information on state supportive measures for young people who would like to find a job and live in the Russian Arctic and the Far East.

In order to acquaint users with perspective occupations in the Arctic and the Far East, a new informative tool – "professiograms" – was developed detailing key characteristics of perspective occupations including: average wages, demanded skills, key regional employers etc.[9]

The web-portal "Start your career in the Russian Arctic and the Far East" is a completely new tool aimed at information dissemination. The web-portal contains another innovative tool, the occupational barometer. The occupational barometer provides information about occupations by categorizing them as in deficit, balance, or surplus in the region as seen in figure 2. The barometer covers both the two macro-regions (the Arctic and the Far East) as well as the 18 individual Arctic and Far Eastern regions.[10] Using this data, users can make informed decisions about types of training or retraining to pursue based on the available positions and their preferred regional destinations.

9 *Serova, L./Sigova, S./Mazaeva K./Fedorova E.* 2015: Citation: Professiogrammykak instrument povysheniya informirovannostinaseleniya o vostrebovannyhprofessiyah. ETAP: EkonomicheskayaTeoriya,Analiz, Praktika, 1, pp. 138–149.

10 *Sigova, S./Stepus, I./Mazaeva, K./Fedorova, E.* 2016: Citation: Barometrzanyatostikakotrazheniesituaciina regional'nomrynketruda. ETAP: EkonomicheskayaTeoriya, Analiz, Praktika, 2, pp. 99–113.

Figure 2: Occupational barometer of the Republic of Karelia

BALANCE	
Operator of ecological installations	Plumbing installer
Archivist	Communications installer
Librarian	Machine and equipment adjuster
Geodesist	Printing production operator
Miner	Stove
Journalist	Food technologist
Dental Technician…	Woodworker…
PROFICIT	
Bank employee	Shoemaker
Designer	Polisher
Breeder	Conductor
Storekeeper	Post officer
Controller	Producer
Machinist boilers and steam turbines	Product collector
Manager…	Machine operator woodworking machines
DEFICIT	
Web designer	Further education teacher
Aircraft	Baker
Administrator	Tiler
Woodworking operator	Carpenter
Fitter	Cook
Aerodrome worker…	Fireman
Waiter	Policemen

Source: own compilation. http://dv-arctic.labourmarket.ru/barometer/10.

The web-portal "Start your career in the Russian Arctic and the Far East" is the main information platform aimed at schoolteachers, pupils, career guidance specialists, and other independent users. The platform aims to encourage local youth stay in the Russian Arctic and the Far East, to attract human resources from other Russian regions to the Arctic and the Far East, and to develop a positive image of these regions in terms of wellbeing and professional opportunities.

Vocational Guidance Lesson Performance Indicators

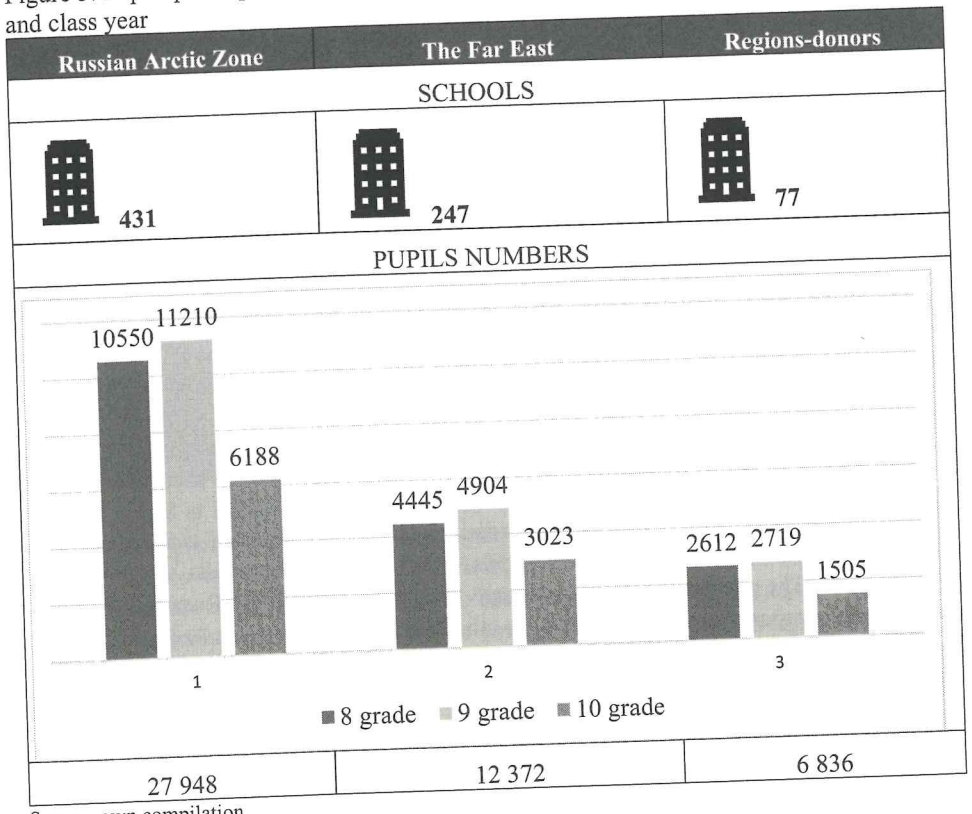
Research on pupils' career path trajectory in the Russian Arctic and the Far East was conducted within the framework of the federal vocational guidance lesson "Start your career in the Russian Arctic and the Far East". This lesson aims to create a positive image of the Russian Arctic and Far Eastern regions development in terms of youth wellbeing and professional opportunities. The intended audience of the federal vocational guidance lesson are pupils in grades 8–10 from the 18 Arctic and Eastern regions and the 15 regions that have historically contributed youth to the Arctic and Far East workforces.

The federal vocational guidance lesson was introduced in 755 general educational organizations across the 18 regions of the Arctic and the Far East and 10 regions from which young human resources historically migrate to the region.

48,900 pupils between grades 8–10 took part in the federal vocational guidance lesson. An additional 1,800 pupils of other age categories also participated in the lesson. The total number of pupils participating at in the lesson exceeded 50,000[11].

Participation was dominated by pupils from the 8th and 9th grades, who accounted for 74,3 percent of all participants (see figure 3).

Figure 3: Pupils participation rate in federal vocational guidance lesson by macro-region and class year

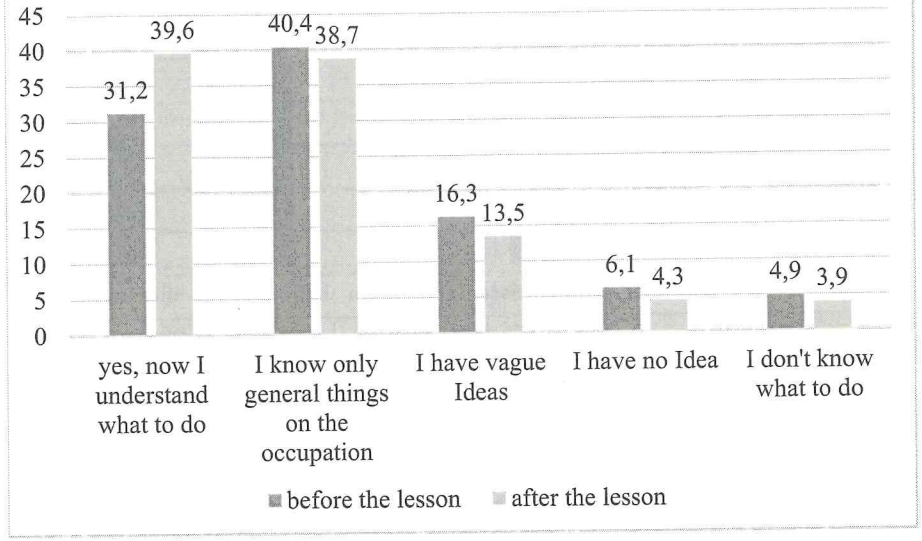


Source: own compilation.

Participation statistics can also be broken down to the regional and municipal level. For example, Krasnoyarsky region contains 61 municipalities but only 31 municipalities participated in the lesson (since only half of Krasnoyarsky region is the part of the Russian Arctic Zone). At the same time, the centers of participation were in Norilsk municipality, Lesosibirsk municipality and Taimyr Dolgan-Nenets municipal district where more than 1,000 pupils took part in the lesson. That is undoubtedly is the highest rate of participation based on the number of participating pupils coming from each municipality.

The lesson operates online at http://dv-arctic.labourmarket.ru/ with a youth professional inclinations evaluation, to catalogue the users career preferences, and then moves into a visual presentation about occupations in demand in the region. The lesson starts with a survey at the beginning of the lesson; at the end of the lesson pupils are surveyed for the second time. The aim of the first survey is to help youth identify potential professional interests and opportunities, and to identify what kinds of vocational training would be necessary for them. Pupils were also asked open questions. For example, "What do you think the occupation is?" or "How do you see your professional future?" The second survey (at the end of the lesson) help us to reveal which occupation is more attractive for the pupil, provides us the overall feedback of the lesson, was it useful etc.

Figure 4 – Pupils survey results before and after vocational guidance lesson in Karelia



Source: own compilation.

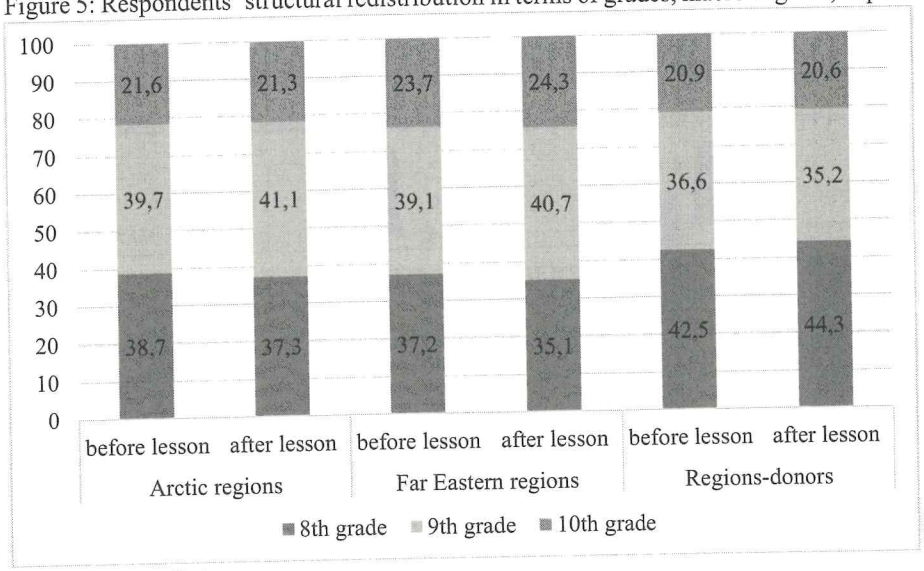
This survey data was then analyzed using descriptive and content analysis methods. The total number of respondents' answers was distributed as follows: 51.8 percent – respondents from the Russian Arctic Zone, 26.7 percent – respondents from the Far East and 21.5 percent – respondents from regions-donors. The analyzing data was used from regions that completed the survey before and after the lesson. Thus, analyses of the completed questionnaires have showed that of the 12,179 students who took part at the first survey, only 8,876 completed the second survey at the end of the lesson. The results have shown that the lesson was generally successful – more than half of pupils (64.5 percent) chose their future occupation, 32.4 percent of pupils found out that information obtained during the lesson was "useful", and for 45.9 percent this information was "highly useful". Information on a career path development both in the Russian Arctic and the Far East was interesting for 41.2 percent of pupils coming from the donor regions.

11 Otchet o provedenii meroprijatij proekta "Nachni trudovuju biografiju s Arktiki i dal'nego Vostoka!" [jelektronnyj resurs] // Internet-portal „Nachni trudovuju biografiju s Arktiki i Dal'nego Vostoka!". http://dv-arctic.labourmarket.ru/docs/Отчет_Всероссийский%20профурок%202019.pdf (30/03/2020).

Thus, the proportion of those pupils who either have vague ideas on the nature of their future occupation has decreased (a decrease by 2.8 percent) or do not have such ideas at all (a decrease by 1,8 percent). Also, the percentage of pupils who were not sure that they would go to work in accordance with their major has reduced by 1 percent.

Despite different total response rates within the regions, the distribution of respondents by grade level was relatively homogeneous across all regions with approximately 80 percent coming from the 8th and 9th grades and the remaining 20 percent from the 10th grade. The actual responses to the survey did however show differences in opinion across regions.

Figure 5: Respondents' structural redistribution in terms of grades, macro-regions, in percent



Source: own compilation.

According to the survey result, more than half of all participating pupils had already decided on their future occupation. It should be noted that not all pupils who had already made their career choice indicated a specific occupation on the survey. The ten most popular occupations were identical across all three regions. Statistics regarding the survey results, shares of the most popular careers, and participation are shown in table 1 below. At the beginning of the lesson pupils were asked the question "Have you decided on your future profession? If yes, please, indicate which occupation you have chosen". Thus, there were outlined the most popular occupations for all 3 types of macro-regions. Most of these occupations belong to a so called "mass occupations" type (universal), which is in demand in almost every Russian region.

The most popular occupations identified by pupils belong to the so-called "mass occupations" category. Mass occupations are occupations which are in high demand in almost every Russian region. A number of participants (115 out of 4 500) identified the ministries of emergency, internal affairs, and the federal security service as their preferred professional destinations however, they did not indicate any specific occupation available in these offices.

Table 1: Survey Results and Top Ten Careers by Region

Occupation title	**Share of occupations in a general list of those indicated in the Russian Arctic zone, in %**	**Share of occupations in a general list of those indicated in the Far East, in %**	**Share of occupations in a general list of those indicated in donor regions, in %**
Total number of answers	**2272**	**1338**	**949**
Total number of unique occupations	**368**	**270**	**238**
Doctor	6.7 %	5.9 %	7.9 %
Software developer	5.4 %	5.4 %	7.8 %
Lawyer	3.5 %	2.9 %	2.3 %
Dentist	3.0 %	2.2 %	1.9 %
Policeman	2.8 %	3.7 %	2.3 %
Military man	2.6 %	3.7 %	2.3 %
Psychologist	2.3 %	2.7 %	3.0 %
Engineer	2.2 %	2.2 %	3.5 %
Designer	1.5 %	1.6 %	2.3 %
Translator	1.3 %	1.9 %	1.2 %

Source: own calculation.

It shall be also noted that all occupations chosen by pupils require higher vocational education most of the time. At the same time demand for blue collar occupations with secondary vocational education prevails in a labor market of Arctic and Far Eastern regions.[12]

According to the first survey results around one in eight pupils would like to work in medicine – 13 percent; 12.9 percent of pupils prefer military service, police, security; culture and art – 10.1 percent; social sphere – 8.1 percent, IT – 8.3 percent; transport – 7.3 percent, pedagogy – 6.6 percent, 17.5 percent – other activities and 16.2 percent of pupils were not yet determined before the lesson start.

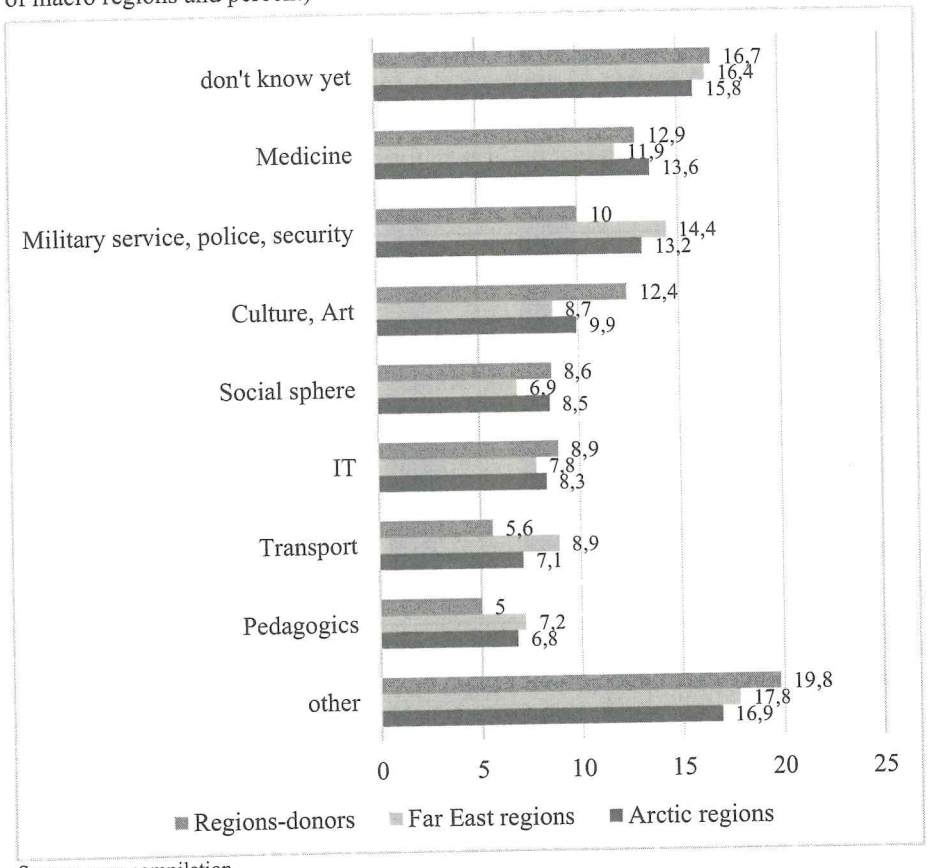
After the vocational lesson the pupils share who had no idea or only a vague idea of the occupation, they wished to pursue fell from 6,1 percent to 4,3 percent based on comparisons from the entry and exit surveys.

Pupils were also asked to evaluate the possibility of successful career opportunities in the Arctic and the Far East. Approximately one in every three pupils from the Arctic region (30.2 percent), the Far East (32.6 percent) and donor regions (35.3 percent) answered that it was certainly possible. One in every two said they were unsure but believed "this was more likely possible." An unequivocally negative opinion on the possibility for finding successful career opportunities in the Russian Arctic and the Far East was expressed by 6.1 percent of

12 *Pitukhin, E./Kekkonen, A./Shabaeva, S.* 2019: Citation: Ocenkapotencialasistemyprofessional'nogoobrazovaniyaDal'negoVostokakakprioritetnojterritoriiRossii. Perspektivynaukiiobrazovaniya, 1, pp. 20–36.

pupils from Arctic regions, 61 percent from the Far Eastern regions and 7.4 percent from the donor regions.

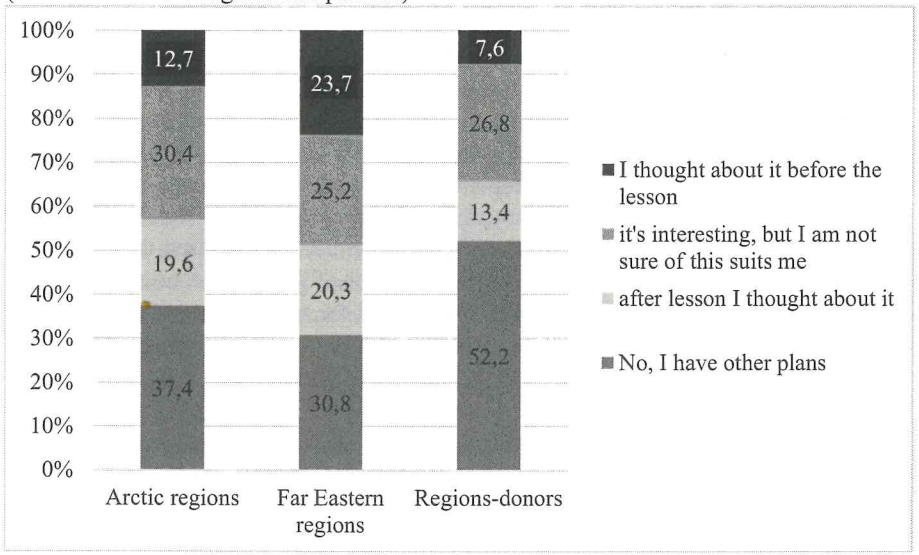
Figure 6: "For which occupation you would like to have a vocational education?" (in terms of macro regions and percent)



Source: own compilation.

In order to identify pupils' personal inclinations towards pursuing a career in the Russian Arctic or the Far East, pupils were asked: "Would you like to start your career in the Russian Arctic or the Far East?" The breakdown of their answers can be seen below in figure 7. Only 12.7 percent of surveyed pupils from Arctic regions and 23.7 percent from the Far East answered that they had definitely planned their career at companies located in the Russian Arctic and the Far East. 20 percent of pupils from the Arctic and Far Eastern regions as well as 13 percent of surveyed pupils from the donor regions said they started thinking of their future career in these regions after completing the program. Pupils who have expressed their direct and potential interest in future career in the Arctic and Far Eastern regions are the target audience in terms of providing additional information on regional labor market, career opportunities, living conditions and other social and economic effects.

Figure 7: "Would you like to start your career in the Russian Arctic or the Far East?" (in terms of macro regions and percent)



Source: own compilation.

Conclusion

Pupils' career trajectory development in the Arctic and the Far East is highly important for strategic recruitment needs in terms of both current and projected human resources shortage. One of the main sources for the recruitment needs is donor regions' graduates who traditionally start their career in the Arctic and Far Eastern enterprises. The federal vocational guidance lesson "Start your career from the Arctic and the Far East" proved to be highly attractive for pupils because it attempts to promote more motivated career development, to increase youth awareness on occupations in demand in the Arctic and the Far East, and to develop a positive image of the Arctic and Far East in the minds of Russian pupils.

It is hoped that the longer-term effect of the vocational guidance lesson will be increased rates of youth remaining and migrating to the Arctic and Far East regions including young specialists. The principal goal of the lesson is to change attitudes of all students to career development in the Russian Arctic and the Far East.

Overall, pupils held a positive view of their possibilities of career opportunities in the Arctic and Far East. For more than half of pupils (64.5 percent) the vocational guidance lesson clarified their occupation choice and future career path. For 32.4 percent of surveyed pupils, the information they obtained was "very useful". For 45.9 percent of surveyed pupils, the lesson was "quite useful". Even more encouraging was the fact that 41.2 percent of pupils from donor regions found the information on careers in the Russian Arctic and Far East to be interesting.