

# **CONTRADICTIONS OF PROFESSIONAL SELF-DETERMINATION OF SCHOOL STUDENTS IN THE CONDITIONS OF DIGITALIZATION OF ECONOMY (ON THE EXAMPLE OF OMSK)**

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## **Abstract**

The Russian school students are traditionally focused on receiving the higher education. Meanwhile labor market is differentiated. On the one hand, in the conditions of development of technologies, digitalization of economy are required highly skilled workers with the higher education, on the other hand digitalization leads to simplification of many labor functions owing to what also workers of low-skilled work are rather demanded. Research objective is identification of contradictions in trajectories of professional self-determination of school students and opportunities of professional development in higher educational institutions, colleges, in work. The hypothesis of a research consists in the assumption that trends of the choice of a trajectory of professional development of school students do not coincide with structure of a system of professional education of the region. In the region it is important to develop the development program of colleges and technical schools taking into account requirements of digital economy, including attraction of resources of large employers of the region.

**Key words:** professional self-determination, school students, digital economy, labor market

**JEL Code:** J21, J 23, J 24

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## **Introduction**

The main stage in the formation of professional competencies is to study in universities or colleges. Russian school students are traditionally focused on getting higher education. The system of higher education in Russia is undergoing radical transformations: the role of universities is being redefined, educational programs are being changed, new educational standards are being introduced. Meanwhile, the labor market is differentiated. On the one hand, in the conditions of technology development, digitization of the economy, highly skilled employees with higher education are required, on the other hand, digitization leads to simplification of many labor functions, as a result, employees of low-skilled labor are quite in demand. Therefore, there is an increasing demand for non-university vocational education,

elements of which include colleges. It should be noted that in the 90s the system of institutions of secondary education was practically eliminated - colleges and technical schools, which would contribute to the training of working specialties. At the moment, the restoration of this system is quite difficult. The state cannot maintain them at a high technological level, and employers are reluctant to invest because of the high costs.

The study of trends in the demand for different levels of professional competence is relevant both in terms of the needs of employers and in terms of the interests of school students, the main consumers of these educational services. To a large extent, these questions relate to the problem field of «career guidance and professional self-determination» from the standpoint of choosing a trajectory of professional development.

At the moment, vocational guidance and professional self-determination of students is studied from different positions. In the area of human resource management, professional orientation was considered in terms of labour mobility, career development and career management (Carr, 1996; Felker, 2011; Yakimova, 2011). Professional self-determination in the digital economy is presented in articles Huws, 2015; Kozlov, Makarova, 2011; Sudoh. and others. The problematic of professional self-determination is especially important in the context of educational systems: individual's choice of educational institution, major choice, etc. (Li and Lowe, 2016; Straube, 2010; Khakunova, Brantova, Khakunov, Shakhbulatova, 2018; Saigushev, 2017). The influence of various factors of career choice on professional self-determination of schoolchildren in the works of Chehlovs, Chehlova, 2015; Iakunina, 2018; Walshaw, 2015; Yakimova, 2011 is studied separately.

## **1 Sample model and method**

The aim of the study is to identify the contradictions in the trajectories of the professional self-determination of schoolchildren and the opportunities for professional development in higher educational institutions, colleges, and in labor activity. Objectives of the study: to identify the preferences of students in the choice of the trajectory of professional development; determine the possibilities of the vocational education system of the region to meet the needs of employers and the interests of students.

To achieve this goal, we conducted a survey of students of 9, 10, 11 grades of schools of the Omsk region. We used the method of survey questionnaire in order to collect the data. The subjects of the study were high school students in the Omsk region. The method of non-probability quota sampling was exploited in order to build a sample with respect to a) place

of respondent's permanent residence (city/village) and b) year of study (9<sup>th</sup> grade; 10<sup>th</sup> grade, 11<sup>th</sup> grade). The model of general population and sample structure is presented in the table below (see table 1).

**Tab. 1: Sample model of the study**

	Total		Sample	
	people	%	people	%
All	36 069	100.00	11 691	32.41
City	19 877	55.11	6 760	57.82
Village	16 192	44.89	4 931	42.18
City				
9 <sup>th</sup> grade	9 796	49.28	3 259	48.21
10 <sup>th</sup> grade	5 328	26.80	1 845	27.29
11 <sup>th</sup> grade	4 753	23.91	1 656	24.50
Village				
9 <sup>th</sup> grade	8 782	54.24	2 717	55.10
10 <sup>th</sup> grade	3 843	23.73	1 067	21.64
11 <sup>th</sup> grade	3 567	22.03	1 147	23.26

source: author

## 2 Results

The main result of the functioning of the system of vocational guidance and professional self-determination is the presence of a choice of profession (see table 2).

**Tab. 2: Availability of choice of profession among school students (% of respondents)**

	Yes, I know for sure who I want to be	there are options for this	there is no answer	there is no assumption	so far it does not matter	Coefficient from +2 to -2
All:	29.66	48.85	4.90	14.49	2.10	0.89
including:						
9 <sup>th</sup> grade	30.41	48.42	5.20	13.78	2.19	0.91
10 <sup>th</sup> grade	24.46	52.21	5.96	15.16	2.21	0.82
11 <sup>th</sup> grade	33.79	46.09	3.19	15.15	1.78	0.95
including						
City	29.23	48.61	4.91	15.07	2.19	0.88
Village	30.47	49.29	4.89	13.42	1.92	0.93

source: author

In general, the system of vocational guidance and professional self-determination allows you to create career choices. The data in Table 2 show that, in general, about 30% of

schoolchildren accurately determined their profession. It is noteworthy that schoolchildren of 10th grade are less vocational. This is due to the fact that objective factors for professional self-determination are higher among schoolchildren of 9th and 11th grades. Schoolchildren of 9th grades were forced to make a choice of a training profile when moving to the upper classes or for entering technical schools / colleges, and schoolchildren of 11 classes were forced to make a choice in connection with the termination of secondary school.

An important choice in the period of study at school is to determine the trajectory of professional development. In general, more than 2/3 of schoolchildren intend to continue their studies at the university (see table 3). At the same time, a significant difference between urban and rural schoolchildren is noticeable: about 90% of rural schoolchildren expect to continue studying at a university and among urban students - 71%.

**Tab. 3: Options for action after graduation (% of respondents)**

	All	City				Village			
		All	9 <sup>th</sup> grade	10 <sup>th</sup> grade	11 <sup>th</sup> grade	All	9 <sup>th</sup> grade	10 <sup>th</sup> grade	11 <sup>th</sup> grade
continue education at the university	77.6	71.3	54.8	85.2	87.3	89.0	86.0	91.8	92.3
continue studies at a technical college	14.1	19.9	35.1	7.3	5.1	3.4	4.3	2.2	2.6
start working	3.9	3.9	4.2	3.2	3.9	3.9	4.9	3.0	3.0
No specific plans	4.5	4.9	5.9	4.3	3.7	3.7	4.8	3.1	2.1

source: author

As expected, the priority is given to studying at the university. It should be noted that this desire is based on a stable trend of obtaining higher education, which dominates the value consciousness of the population of Russia. The greatest difference in this indicator is observed in pupils in the 9th grade. The result was unexpected: only 54.8% of urban schoolchildren of 9th grade suggest further study at the university, among rural students - 86.0%, which requires a deeper analysis and understanding of the reasons. These data fundamentally affect the functioning of the system of professional self-determination. Currently, it focuses mainly on the choice of profession and training in universities. Meanwhile, the shift in the interests of schoolchildren (in particular, the city of Omsk) into the specialized secondary education is obvious.

What is the willingness of universities and colleges to meet the expectations of students in vocational education? In the Omsk region there are 15 universities (including branches). The total amount of admission to 1<sup>st</sup> year allows you to fully meet the needs of

schoolchildren, but only by 27% the need for training in budget places. 30 colleges (public and private) according to the plan for admission to budget places can only accept 34% of those who wish. At the same time, experts (9 experts were interviewed: representatives of government bodies, employers, teachers) pay attention to the fact that the structure of educational programs offered by colleges does not meet the needs of the regional economy, equipment and equipment does not correspond to the quality of jobs offered by graduates of regional enterprises.

In the conditions of competition in the market of educational services and significant changes in the system of higher education, there is an acute issue of choosing not only a profession, but also a university where you can get the appropriate professional education. 68.3% of respondents expect to study at universities in the city of Omsk. It should be noted that rural schoolchildren are more oriented towards Omsk universities (81.1%). Universities of Moscow and St. Petersburg (19%), universities of other regions (12.9%) are attractive for urban schoolchildren. The preferences of rural students are different. For them, universities in Moscow and St. Petersburg are not attractive (3.6%), and universities in other regions are important for every tenth rural schoolchild. The data in table 4 show that the choice of an educational institution is one of the factors of the migratory activity of applicants.

**Tab. 4 Pupils' preferences regarding universities (% of respondents)**

If you have already decided on an educational institution, then:	City	Village	All
This is the university of Omsk	61.5	81.1	68.3
this is the university of Moscow and St. Petersburg	19.0	3.6	13.5
This is a foreign university	3.4	1.3	2.6
This is a university in another region	1.9	10.1	11.9
I do not plan further education	3.3	4.1	3.6

source: author

In a study on the migration expectations of the population of the Omsk region, it was also revealed that for 44% of young people the choice of a university in another city was the motivation for moving from the Omsk region. Thus, it can be stated that for the Omsk region, the attractiveness of universities is not only a factor in vocational guidance, but also a factor for migration.

## Conclusion

Thus, the results of the study showed that the vocational guidance system as a whole allows school students to decide on the choice of profession. At the same time, the 9th grade is the actual period for choosing the trajectory of professional development, when it is institutionally necessary to make a choice: to continue school or go to the college. It is revealed that a new trend is emerging, when schoolchildren more and more (more than 35% of urban ninth-graders) prefer to study in colleges. 5 years ago, only 17% expressed such intentions. Rural schoolchildren continue the trend of priority higher education.

New realities form new challenges to the regional education system. A contradiction was revealed: on the one hand, there is an increase in demand for training in technical schools and colleges, on the other hand, the regional system of secondary vocational education does not correspond to such a volume of demand. In addition, the structure of training in colleges and technical schools does not meet the requirements of the digital economy. The nomenclature and content of educational programs of colleges, as well as their material and technical condition do not correspond to modern conditions. This is due to the fact that in the 90th the Soviet system of vocational education was destroyed, based on close cooperation and participation of employers in the functioning of colleges. Currently, this is the authority of state bodies that have not created programs and conditions that are adequate to market relations. It is necessary to intensify the work of colleges according to the WorldSkills standards, more actively stimulate the involvement of employers in the development and implementation of professional educational programs. The study showed that large enterprises in the region are ready for such participation, it is necessary to create appropriate regulatory, organizational and managerial conditions, including on the principles of public-private partnership.

Using the methods of descriptive statistics, we diagnosed a contradiction about the fact that, on the one hand, schoolchildren are oriented towards higher education - 77.6% of respondents. This trend is especially characteristic of rural schoolchildren - 89%. On the other hand, there is a reduction in the number of student places in higher educational institutions of the Omsk region and their competitiveness. Universities are quite active among schoolchildren. But the methods of career guidance and recruitment of applicants do not meet the current expectations of students. Explanatory and agitation work does not generate interest in Omsk universities, which reduces their competitiveness in the market of educational services. It is necessary to actively use interactive methods, methods of comparative analysis

of educational programs, individual counseling. The work on promoting the choice of educational trajectories, including issues of employment prospects and changes in the content of labor professions under the influence of digital technologies, seems promising.

About 4.5% of schoolchildren assume labor activity after graduation. According to the results of the study, it is necessary to envisage in the system of vocational guidance activities that demonstrate the gradual development of professional development: labor activity — college / technical school — higher educational institution. The key task of resolving the revealed contradictions is that it is necessary to develop a program for the development of colleges in the region, taking into account the requirements of the digital economy, including attracting the resources of major employers in the region.

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