

CONTRADICTIONS OF THE CHOICE OF EMPLOYMENT FORMS BY STUDENTS OF THE OMSK REGION IN CONDITIONS OF THE DIGITAL ECONOMY DEVELOPMENT

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Abstract

The quality of working life is largely determined by the choice of profession and the competitiveness of a person in the labor market. At the same time, it becomes obvious that the professional division of labor is being significantly transformed under the influence of the fourth industrial revolution and the digital economy. Under these conditions, constant professional self-determination, positioning of a person in the structure of the professional division of labor is required in order to timely form potentially promising competencies and design the trajectory of his professional development. Realization of professional self-determination occurs in the labor market, where, under the influence of digital technologies, the understanding of forms of employment, ways of integrating a person in labor activities is changing. There are new ways to integrate a person into work: distance employment, project employment, self-employment, freelancing. At the same time, in modern conditions, there are contradictions between the supply of labor and the demand from University graduates in the regional labor market. These contradictions generate new trends in migration processes.

Key words: professional self-determination, flexible employment, students, digital economy

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Introduction

The choice of profession and form of employment largely determines the quality of a person's work life. At the same time, traditional methods and tools of choice in the conditions of dynamic transformations of the labor market and the professional division of labor become ineffective. Increasingly, this choice must be strategic. It becomes obvious that the professional division of labor is significantly influenced by the fourth industrial revolution, the digital economy. There are new ways of incorporating a person into work: remote employment, project employment, self-employment, freelancing. The nature and content of labor, even within the framework of one profession, is differentiated depending on the form of

employment. Under these conditions, constant professional self-determination, positioning of a person in the structure of the professional division of labor is required in order to timely form potentially promising competencies and design the trajectory of his professional development. Restrictions on the regional labor market activates migration processes. This is especially true for students - the most active social group of the economically active population.

Issues of transformation of forms of employment in the digitalization of the economy are relevant and presented in the works of a large number of authors, in particular in the works of Huws (2015), Kozlov, & Makarova (2011), Mandl (2017), Valenduc (2018) and many others. Analysis of various forms of employment (crowdsourcing, self-employment and others) are presented in the works of Muehlberger (2007), Shevchenko, & Kazak (2019) and others. The choice of forms of employment, including youth, are presented in the works of Jordhus-Lier (2012), Li, Lowe (2016), Walshaw (2015).

1 Sample model and method

The purpose of this study is to identify the contradictions between the forms of employment preferred by students and the structure of the regional labor market. The objectives of the study are: to study the characteristics of students' professional self-determination in terms of their preferences in the forms of employment (budget / private organization, large / small, employment / self-employment, freelancing, entrepreneurship); demand analysis from the standpoint of forms of employment.

The first hypothesis is that labor market offers traditional forms of employment while preferences of students are directed to flexible forms of employment. At the same time students of final years are focused on work in the private sector of economy. The second hypothesis assumes that students of the economic directions are more aimed at business. For check of hypotheses methods of descriptive statistics as a result of which the set of the indicators characterizing influence of a course of training and direction of preparation on the choice of a form of employment by students is received were used. Communication between the direction of preparation, a course and a form of employment was measured by means of Kramer's coefficient (V) with assessment of probability of a mistake.

The results represented in this article are a part of a big research of career guidance and professional self-determination at different stages of reproduction of a labor power. In a research the following methods of collection of information were applied:

Questionnaire of the students studying in two directions of preparation reflecting characteristics of humanitarian and technical education, typical for higher education institutions of Omsk (economy and management, computer science and computer facilities). Graduates of these directions of preparation are most demanded at the city-forming entities of the region in the conditions of development of modern technologies. Quote selection of the higher education institutions conducting preparation in the corresponding direction was used (see table 1).

Next quotas of groups of students of 1 and 4 rates in which continuous poll was performed were taken up. The first rate is interesting to us how ideas of a profession in the first year of training, as a rule, after the termination of high school are transformed. The fourth year (finishing a bachelor degree rate) - for assessment of professional focus and professional self-determination during training in higher education institution.

Tab. 1: Sample model of the study

	Total		Sample	
	people	%	people	%
Economics and management				
1 course	650	100	254	39,1
4 course	855	100	299	35,0
Only in the direction	1505	100	553	36,7
Computer science and computer facilities				
1 course	375	100	179	47,7
4 course	193	100	112	58,0
Only in the direction	568	100	291	51,2
All	2073		844	

Source: authors

For the analysis of supply and demand in the regional labor market, data of official statistics, materials of the employment service, data of job sites “headhunter”, “zarplata.ru” were used.

2 Results

At the beginning of the study was studied the question of the level of certainty of students with employment. This was the basis for analyzing the effectiveness of various activities of

the university in promoting employment. Universities aim to identify a student with a place of employment for the last undergraduate course. For this purpose, such methods as: meetings with employers, excursions to enterprises, project activities on orders of enterprises, organization of students' practice, etc. are used. The study revealed a low level of certainty with the future place of work (see table 2).

The data in Table 2 indicate that students have a low level of certainty about employment in specific organizations. Predictably lower is the level of certainty with the employment of first-year students.

Tab. 2: The level of certainty of students with employment (% of respondents)

Have you decided on the organization where you will work?	All	1 course	4 course	Economics	IT
Yes, I know for sure,	12,17	6,3	19,5	10,1	15,6
There are options,	31,62	28,2	36,0	32,4	30,3
There are only assumptions,	14,81	14,2	15,6	17,5	10,2
I do not know,	41,41	51,4	28,9	40,0	43,9
Coefficient *	-0,39	-0,76	0,02	-0,45	-0,36

Source: authors

* The coefficient was calculated as a weighted average of respondents' answers in the range of +2 («yes, I know exactly») to -2 «I don't know».

But even for 4th year students this level varies between “there are options” and “there are only assumptions”. At the same time, the level is generally at the “there are only assumptions” stage. The most determined are the students of the fourth year of IT-specialties. Among them, every third works, performing projects commissioned by enterprises. In general, the results indicate a low efficiency of the university subsystem of vocational guidance and professional self-determination for the selection of a specific workplace and employment in general. In the future, the results of the first stage were compared with preferences in the choice of employment forms by students.

The second stage is aimed at determining preferences in the forms of employment. Options explored: employment / self-employment options; state enterprises / private enterprises; among the forms of self-employment are freelancing, entrepreneurship, individual employment. Distribution of answers is presented in table 3,4.

Tab. 3: Student Preferences in Forms of Employment depending on the course of study (% of respondents)

What type of employment is preferable for you?	course of study		
	All	1 course	4 course
Employment in a state-owned enterprise	22,3	22,5	22,1
Work in a private enterprise	35,4	33,1	37,7
entrepreneurship	29,0	30,2	27,8
freelance self-employment	11,7	12,2	11,3
I do not expect labor activity	1,6	2,0	1,1
		100	100

source: author

On the basis of it the correlation the coefficient of Kramer (V) who is equal to 0.62 is calculated. Probability of an error (p) less than 0.05. Thus, we see that students 4 courses are more focused on work in the private of economy sector .

Tab. 4: Student Preferences in Forms of Employment depending on the direction of training (% of respondents)

What type of employment is preferable for you?	direction of training		
	All	Economics	IT
Employment in a state-owned enterprise	22,3	24,3	20,3
Work in a private enterprise	35,4	28,2	42,6
entrepreneurship	29,0	36,6	21,4
freelance self-employment	11,7	9,1	14,3
I do not expect labor activity	1,6	1,8	1,4
		100	100

source: author

On the basis of it the correlation the coefficient of Kramer (V) who is equal to 0.69 is calculated. Probability of an error (p) less than 0.05. Students of IT specialties more students are focused on work in the private of economy sector. Economists, in comparison with IT specialists, are more focused on business. So, both of our hypotheses were confirmed.

Regarding employment forms, the results show a wide differentiation of preferences. More than 40% are focused on freedom of employment related to employment in entrepreneurship, freelancing and self-employment.

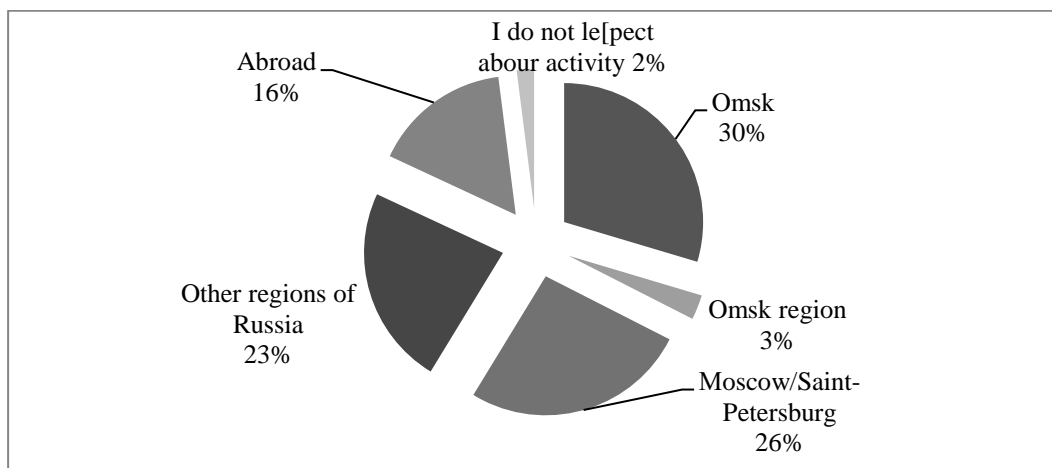
Let us consider the compliance of student preferences with the trends in the regional labor market. For this, economic and IT vacancies offered for university graduates were analyzed. Were selected vacancies that require higher education and work experience of not more than 1 year, presented in the state employment service and on popular job sites. In terms of the economic areas of training in the regional labor market, the structure of job offers is as

follows: state-owned enterprises in the form of hiring - 87.3%, private enterprises in the form of hiring - 12.7%. At the same time, the absolute values of demand as of 01.02.2019 exceeded the supply volume (output of economic profile specialists in the universities of Omsk in 2019) by 26.3%. This indicates that the demand for economics-university students remains high, but the quality of jobs, including in terms of forms of employment, does not meet the interests of students. According to IT-training students, the structure of supply and demand in the regional labor market is the structure of job offerings as follows: state enterprises in the form of hiring - 45.4 %%, private enterprises in the form of hiring - 54.6%. The absolute values of demand as of 01.02.2019 exceeded the supply volume (output of economic profile specialists in the universities of Omsk in 2019) by 47.8%. Demand in private enterprises is consistently high, which generally reflects the preferences of students. This correlates with student employment rates after graduation: the level of certainty with employment among students in the 4th year of IT training is significantly higher than the average (see table 2).

Regarding opportunities for self-employment in the form of freelancing, entrepreneurship, private employment, students note the low level of opportunities in the Omsk region. This is due to the fact that the region has low effective demand, investment attractiveness is below average in Russia. Despite the availability of regional programs to support small businesses, students do not appreciate their effectiveness. Therefore, only 32.4% of those who want to do business see the prospects for such activity in the Omsk region.

To study the hypothesis of the structure of the labor market and migration processes, the question of the intended place of employment was studied. The results are presented in figure 1.

Fig. 1. Intended for students employment region (% of respondents)



source: author

The data in figure 1 shows that only 32% of students are supposed to work in organizations of the Omsk Region. At the same time, students of the 4th year (39.4%), students of IT specialties (35.8%) are a bit more “patriotic”. If first-year students are oriented to capital cities, then fourth-year students to other regions of Russia. In general, this corresponds to the trends we identified in the study of the migration expectations of the population of the Omsk region (Polovinko, V., & Arbuz, A., 2017). The main reasons for the migration of respondents noted: the low quality of jobs at the enterprises of the Omsk region - 56.7%, the lack of prospects for professional development - 45.6%, the lack of prospects for the development of their business, self-employment - 43.6%. The reasons of social character matter no more than 28%. At the same time, the relationship between student performance and the desire to find a job in / outside the Omsk region was revealed: the Spearman correlation coefficient is 0.45 with a confidence interval of $p = 0.05$. That is, the higher the academic performance of students, the greater the likelihood of employment outside the Omsk region. In addition, there is a high correlation between the desire for employment outside the Omsk region and the level of certainty with employment: the greater the certainty with employment, the higher the probability of remaining in the Omsk region (Spearman coefficient is 0,37 with a confidence interval $p = 0.05$).

Conclusion

Thus, the results of the study showed that the effectiveness of vocational guidance activities of universities remains at a low level. The methods used do not allow to achieve the goal: the choice of employment options in the last year of study at the university. To improve efficiency, it is necessary to strengthen the interaction of universities and enterprises during practical training, in the formation of the HR brand of Omsk enterprises' employers, to increase the involvement of practitioners in the process of training specialists, to develop project forms of activity on the orders of enterprises. There was a contradiction both in the structure of demand and supply in the regional labor market, and in the preferred forms of employment. Non-state sector enterprises in the regional labor market behave passively, do not offer jobs that meet modern requirements from students. Characteristics of jobs in state enterprises are not attractive both in terms of the content of labor and in the forms of employment. This contradiction is especially relatively to the economic areas of training. These findings confirmed the first hypothesis. Disproportions in the regional labor market intensify the migration outflow of young people. The potential outflow of skilled labor

(among young people) is estimated at 70%, which creates threats to the economic development of enterprises and the social development of the region. The main causes of migration are economic ones. To regulate the revealed contradictions, it is necessary to provide measures that demonstrate employment prospects in the regional labor market in the system of vocational guidance and professional self-determination. To include activities explaining the possibilities and limitations of professional development in the context of various forms of employment in the students` curriculum. It is also important to develop recommendations for businesses on the ways and methods of using flexible forms of employment (remote, project, attracting freelancers) in order to involve students in the economic processes of the region. To attract the most successful students, enterprises must develop and implement programs to attract talent, creating jobs with a focus on employment flexibility, professional development prospects.

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References

1. Chehlovs, M., & Chehlova, Z. (2015). Развитие профессионального самоопределения старшеклассников в процессе профильного обучения. ОБЩЕСТВО, ИНТЕГРАЦИЯ, ОБРАЗОВАНИЕ. Материалы Международной научной конференции,2, 18. doi: 10.17770 / sie2015vol2.456
2. Development of Self-Employment in the Context of Digital Economy. (2018). *The Journal of Social Sciences Research*,(SPI 3). doi:10.32861/jssr.spi3.423.428
3. Development of Youth Entrepreneurship in Russia in the Conditions of Digital Economy. (2018). *The Journal of Social Sciences Research*,(5), 99-102. doi:10.32861/jssr.spi5.99.102
4. Growth of ICT sector employment in the economy. (2015). *OECD Digital Economy Outlook 2015*. doi:10.1787/9789264232440-graph42-en
5. Huws, U. (2015). ICapitalism and the Cybertariat: Contradictions of the Digital Economy. *Monthly Review*,66(8), 42. doi:10.14452/mr-066-08-2015-01_7
6. Jordhus-Lier, D. C. (2012). Public Sector Labour Geographies and the Contradictions of State Employment. *Geography Compass*,6(7), 423-438. doi:10.1111/j.1749-8198.2012.00496.x

7. Kozlov, A. V., & Makarova, M. N. (2011). Transformation of employment conditions in information-network economy. *Economy of Region*, 237-241. doi:10.17059/2011-1-32
8. Mandl, I. (2017). Examining emerging new employment forms and potential positive and negative effects on working and employment conditions. *Administration*, 65(4), 11-20. doi:10.1515/admin-2017-0030
9. New Forms of Work in the Digital Economy. (2016). *OECD Digital Economy Papers*. doi:10.1787/5jlwnklt820x-en
10. Polovinko, V., & Arbuz, A. (2017). Migration processes as a factor of labor market regulation. *Proceedings of the Second International Conference On Economic and Business Management (FEBM 2017)*. doi:10.2991/febm-17.2017.90
11. Shevchenko, O M, & Kazak, O O. (2019). Crowdfunding Development In The Conditions Of Digital Transformation Of Ukraine'S Economy. *Efektivna Ekonomika*, (3). doi:10.32702/2307-2105-2019.3.43
12. Saigushev, N. Y. (2017). Model of future engineers' self-determination during professional training in technical university. doi:10.15405/epsbs.2017.07.02.110
13. Sudoh, O. (n.d.). The Knowledge Network in the Digital Economy and Sustainable Development. *Digital Economy and Social Design*, 3-38. doi:10.1007/4-431-26318-7_1
14. Valenduc, G. (2018). New Forms of Work and Employment in the Digital Economy. *The Deconstruction of Employment as a Political Question*, 63-80. doi:10.1007/978-3-319-93617-8_3
15. Walshaw, M. (2015). Confirmations and contradictions: Investigating the part that digital technologies play in students' everyday and school lives. *Waikato Journal of Education*, 20(3). doi:10.15663/wje.v20i3.237

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