

ICEST 2020
**International Conference on Economic and Social Trends for Sustainability of
Modern Society**

**EVALUATION TRANSACTION COSTS FOR THE STATE
"START" YOUNG PROFESSIONALS IN THE WORKPLACE**

E. E. Lobanova (a), E. V. Demidova (b)*, T. V. Shendel (c)

*Corresponding author

(a) Reshetnev Siberian State University of Science and Technology, Krasnoyarsky Rabochy ave., 31, Krasnoyarsk, Russia, e.lobanova.sibgtu@mail.ru

(b) Reshetnev Siberian State University of Science and Technology, Krasnoyarsky Rabochy ave., 31, Krasnoyarsk, Russia, demidovaev@mail.sibsau.ru

(c) Reshetnev Siberian State University of Science and Technology, Krasnoyarsky Rabochy ave., 31, Krasnoyarsk, Russia, shendeltatjana@rambler.ru

Abstract

The article outlines the problems of employment of young specialists in the labor market, including those related to the specifics of the formation and demand for human capital in this category of labor. The significance of accounting of transaction costs of various subjects of this process by the stages of reproduction of young specialists has been determined. A personal approach to assessment of the state transaction costs on the “entry” of young specialists into the labor sphere through the development of internships is proposed. A model for the assessment of these costs is based on a total accounting of both state losses from unemployed young professionals and government expenses to “advance” them into the labor sector. A dynamic model for the estimation of these costs for university graduates in Russia as a whole, as well as for one of the largest territorial entities of the country, the Krasnoyarsk Territory, has been built. The results of testing time-series model allow us to confirm the hypotheses formulated in the article and come to the conclusion that the state expenses to support unemployed graduates through internships give a tangible result for society in the form of reduced losses from unemployed young specialists and generally reduces the total transaction costs of the state. Thus, the proposed model for assessment of the transaction costs of the state for the “entry” of young specialists into the labor sphere can serve as a tool for modeling costs in the designated area.

2357-1330 © 2020 Published by European Publisher.

Keywords: Young specialists, employment, internship, transaction costs.



This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 Unported License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

1. Introduction

The relevance of the problem of low demand for graduates of educational organizations (young specialists) by the labor market is not in doubt. The solution to this problem is multidimensional and is associated with the specifics of the formation of human capital in this category of labor, investments in it, and problems of economic returns for investors.

2. Problem Statement

Problems of the inefficiency of using a professionally trained subject of labor are studied in many foreign and domestic works. Formation, development of human capital (including young specialists), investments in it were considered by such authors as Endovitsky and Durakova (2019), Iankovets (2018), Iurieva et al. (2017), Rudenko et al. (2013), Shmanev and Shmaneva (2019), Garavan et al. (2001), Vokoun et al. (2018), Zakharova and Kratt (2014). Employment problems of graduates in the context of various approaches were studied by such authors as Borisov et al. (2019), Kibanov and Dmitrieva (2019), Razumova and Zolotina (2019) and others. At the same time, such general problems were revealed as the low rate of investment return from human capital, the insufficient amount of formed traditional human capital at the time of graduation, and the fact that a graduate of educational organizations (young specialist) practically doesn't have human specific and social capital. In our opinion, in many ways, these problems are directly interdependent due to the processes of distribution of socio-economic costs (transaction costs) of the "entry" of a young specialist (graduate) into the world of work between the main subjects of its reproduction. These costs arise because of the actions of labor market participants who make deals on property rights of human capital and ensure their implementation. From the point of view of transactions and transaction costs theories (Glushach & Bishops, 2014; Protasova, 2013), the formation of the considered costs of reproduction of graduates (young specialists) is due to the action of the law of information asymmetry, and is also a consequence of the abovementioned problem of the accumulation of human and social capital by this category of labor. The main actors in the formation of transaction costs of reproduction of young specialists (graduates) are the state, the employer and the young specialist (graduate). In Russia, there are practically no large-scale and comprehensive studies of the costs of the reproduction process of graduates (young specialists) as a category of labor. Separate studies of unemployment estimates on the youth group and educational levels are not accurate enough and detailed to specify the loss of society from disruption of the reproduction of young specialists, including those in the status of graduates.

3. Research Questions

Tested by us in 2000-2013 the assessment approach of the transaction costs of the state (TCS) on the "entry" of young specialists (graduates) into the labor sector (Lobanova & Pisankova, 2015) was a combination of two types of costs: alternative and direct economic costs. We have designated alternative economic costs in the form of state losses (SL) in case of unemployment of young professionals (graduates in the first year after graduation), in the form of not receiving GDP that is not produced by an unemployed graduate, household income, taxes (insurance payments). The direct economic costs of the state to "promote" young professionals (graduates) into the labor sector (costs on a passive and active employment

policy) will be designated as state expenses (SE). The macroeconomic assessment model of TCS is designed to provide answers to change processes under the influence of various factors, indicators. A system construction begins with the definition of parameters and variables that determine the process of functioning of the system. The model of their assessment previously presented by us (Lobanova & Pisankova, 2011) can be estimated by a function where the TCS value itself, being an endogenous variable, can be represented as a function of SL, SE exogenous and endogenous variables (1).

$$TCS = f(SL; SE) \quad (1)$$

In turn, the variables of the formula (SL, SE), forming the TCS by summing their values, are also functions from their internal variables and constants (system parameters). The expense portion of the original formula (SE), in turn, is also the sum of the state's expenses on passive (payment of benefits) and active (retraining, internships) employment policies for young specialists (graduates). As parameters of the system that determine the transaction costs of the state on the "entry" of graduates of educational organizations into the labor sector (TCS), remaining constant over the entire time interval T (the corresponding year), according to the initial formula (1) are: for SL (the first term of the formula): IC (insurance contributions for wages), PT (personal income tax). The remaining components are variables, and their separation into endogenous (determined by the model) and exogenous (having an external character) is conditional, since the variables we use are in constant interaction with each other. Thus, the TCS value is an endogenous variable, since it is the result of the implementation of the model for assessment of the costs involved. In turn, the variables of the formula (losses (SL) and expenses (SE): the second and the third terms of the formula) (Lobanova & Pisankova, 2011) are dependent variables (endogenous), since their values are the result (function) of the influence on the system by independent external variables. These are the size of GDP, salaries, minimum wage, minimum unemployment benefits, average job search time, number of employees, number of unemployed graduates (young specialists) including those who applied to the employment service.

4. Purpose of the Study

The improvement of the tools for assessing the formation of the transaction costs of the state on the "entry" of young specialists (graduates) into the labor sphere from the standpoint of its losses, expenses in the context of modeling the impact of internship expenses on the general costs of the state.

5. Research Methods

Research hypotheses:

1) Apparently, the low parameters of the scale of involvement of graduates of educational organizations (young specialists) into the processes of state regulation of the labor market are associated, inter alia with a limitation of organizational and financial support from the state (in particular on internships). Apparently, most employers lack motivation to attract graduates (young specialists) without work experience if it is necessary to bear the costs of forming their primary labor experience within the framework of internships. Our studies (Lobanova & Pisankova, 2011) and employment service statistics confirm this assumption.

2) Apparently, the state does not fully evaluate the impact of its tools (in particular, internships) on the employment problems of graduates of educational organizations, regarding them as burdensome expenditures (losses). An analysis of the practice of implementing employment policy by the state in the context of graduates of educational organizations (young specialists) indicates a trend towards a reduction in the expenses part (SE) of the amount of TCS, primarily due to the refusal of the state to finance internships of graduates. Internships for unemployed graduates, which, in our opinion, are the most important tool for adapting them to the requirements of the labor sector, were funded by the state only in the time period from 1996 to 2000 within the framework of the "Youth Practice" program for graduates of all educational organizations. After that they were funded within "The first job" program only for unemployed secondary vocational education graduates aged 18-20. The crisis of socio-economic processes in Russia in 2008-2011, which arose as a result of the global financial crisis, was overcome, including through unprecedented measures by the state to support the Russian labor market. At this period, the state support of internships for all graduates (young specialists), regardless of their level of education, both at the federal and regional levels, was obligatory resumed, which allowed to curb the growth of unemployment in this status and age segment of the labor force. Unfortunately, this practice did not continue in subsequent years. One of the reasons, in our opinion, is the underestimation of the real extent of the impact of such an instrument as an internship on the employment problems. Therefore, the state perceives its costs on the "entry" of graduates of educational organizations only from the position of expenses (part of "SE" of formula 1) on these processes, seeking to reduce them. At the same time, state losses because of unemployed graduates are many times higher. Our proposed approach to accounting of all costs of the state in this area (TCS) allows to make the accounting of all costs complete and informative for making an informed management decision.

3) Apparently, the previously proposed formula (1) requires adjustments to more fully take into account the "return" effect of such a variable as internship expenditures. These adjustments are related both to the clarification of the expenditures on this variable in the composition of SE and the "return" effect" on SL.

In the adjusted version, the formula is as follows (2).

$$TCS = (NU - NUI + NUN) TJS * (GDPz + AS * (100 + IC + TW) / 100) + UBmin * (NUB * TJS + NUR * TT) + ZPmin * TW * Chbvst * TI * A \quad (2),$$

where TCS - transaction expenses of the state on unemployed graduates; thousand rubles;

NU - the number of unemployed university graduates for period T; people;

TJS - average time for job search by graduates; months;

GDPz - GDP per worker employed per month; thousand rubles / person;

AS - average monthly salary; thousand rubles;

IC - insurance contributions wage; %;

TW - income tax on wages; %;

UBmin. - the minimum amount of the unemployment benefit; thousand rubles;

NUB - the number of registered unemployed university graduates receiving benefits; people;

NUR - the number of registered unemployed university graduates sent to retraining; people

TT - the average training time for unemployed graduates, months;

NUI - the number of registered unemployed university graduates sent to internships; people

TI- the average internship time for university graduates; months

NE - the number of unemployed graduates employed after the internship;

NUN - the number of unemployed graduates not employed after the internship;

A - the adjustment factor of participants in the internship program, taking into account the number of tutors and payments for them.

The introduction of new variables into formula (1) (NUI, Chbvstntpo according to the first term and A, IC according to the third term of the formula) by taking into account the impact of internships for unemployed graduates allows to transform it (2) and to more accurately evaluate the cost effectiveness of the state at the macro level. The system parameters according to formula (2) are as follows: in terms of losses (SL): IC (insurance contributions wages), PT (personal income tax); in terms of expenses (SE): IC (insurance contributions wages); A (adjustment factor of participants in the internship program, taking into account the number of tutors and payments for them).

The adjusted approach to the assessment of TCS (2) allows us to determine their values in dynamics taking into account established over recent years practice of canceling by the state the organization and financing of graduate internships as a mandatory element of an active policy of employment. In turn, this makes it possible to simulate the situation of the dynamics of changes in TCS with the introduction of this element with an increase in government costs in terms of expenses (SE) of formula (2). The object of the study was graduates of universities of the Russian Federation and one of the largest dynamically developing entities of the country (the Krasnoyarsk Territory) of time series 2014-2017. The data for calculations obtained from official sources (Assistant, 2019; Ministry of Labor of Russia, 2019; Rosstat, 2018; Tax News, 2019) were used in some cases with a number of assumptions because of the imperfection of the Russian statistical database of accounting of interaction indicators of subjects of vocational education and labor services markets in relation to the age and status category of graduates (young specialists). Calculations of government expenses on unemployment benefits, scholarships for graduates applied to the employments service (in the latter case, when they are sent for retraining) were carried out for the study period in accordance with the revisions of the Law on Employment in the Russian Federation effective until the end of 2018 (Komsomolskaya Pravda, 2019), since from January 2019 the duration and the size of the payments were changed in the new edition. So, the duration of the payment of benefits, scholarships for the time series under review was determined as being six months (for benefits - based on the version of the law until 2018, for scholarships – based on the assessment of employment service specialists according to the average retraining period of graduates). In the dynamics, it is quite difficult to obtain Rosstat data on the number of unemployed graduates, including various levels of education. We used the results of sample labor force surveys (Rosstat, 2018), which indicated the proportion of unemployed graduates one year after graduation. The unpopularity of the employment service among young specialists (primarily in the status of graduates) leads to a stable tendency - no more than a third of the unemployed part apply to it, which was reflected in the calculations. The calculations were carried out according to formula (2) in two versions: 1) taking into account the established practice - without the state expenses on internships (the values of the variables Chbvst, Chbvzst, NUN were reset to zero); 2) taking into account the possibility of applying state-funded internships within the same time period. When calculating according to the second version of

formula (2), the studies of a number of authors were taken into account (Fedchenko, 2014; Vostrova, 2011), and our own empirical studies in the form of surveys of graduates of the Siberian Federal University, Siberian State Technological University, ANO VO “Siberian Institute of Business, Management and Psychology” in 2010-2017. These studies show the importance of internships for graduates as an argument for contacting the employment service (according to our studies, 50% -80% were ready to come to the employment service having such state support). These results confirm the first part of hypothesis 1. The minimum value of this variety of opinions was used in these calculations, that is, 50% of unemployed graduates. But even with a minimal increase in graduates applying to the employment service (by 17%), the calculations show an increase in the influence of the state on the regulation of labor market processes in this category of labor. The following restrictions were laid down in the dynamic model of assessing TCS (2) under consideration: the parameters of those receiving unemployment benefits aimed at training graduates who came to the employment service (in absolute terms) remain the same (at the level of calculations of the first version of the formula), since they reflect the real demand of labor market for graduates of a particular year; the emergence of a new variable in the form of unemployed graduates sent to internships is estimated by the growth rate of graduates who applied to the employment service. Using the standards of the previously mentioned federal and regional internships of graduates of educational institutions in order to gain work experience (within the framework of the long-term target programs “Reducing tension in the labor market for 2009-2011) allows us to make calculations on the expenses associated with the internship (Consultant Plus, 2019; Rabota-enisey.ru, 2020). In accordance with them, the following conditions are included into the calculations according to model (2): the duration of graduates' participation in the internship is no more than six months; partial reimbursement of expenses to the employer : payment for graduate's work in the amount of the minimum wage per month, increased by insurance premiums into state extra-budgetary funds and a coefficient for the district; payment to employees for mentoring in the amount of one half of minimum wage per month established by the law, increased by insurance contributions into state extra-budgetary funds and the coefficient for the district. The number of tutors and trainees can be different, we took into account, based on the results of a survey of employers, the following ratio: one tutor for three trainees. According to the results of our own research of the opinions of employers (2010-2019) on the significance of internships for them when the state incurs the expenses mentioned above associated with this form of graduates support, the following assessments of the possibility of employment were obtained: the employer is ready to recruit each of the five trainees after a successful internship; the likelihood of hiring by another employer with the qualifications, training profile of an employee from university graduates who have undergone internships, have a reference, the primary experience also increases and amounts to 50% of those who have been trained. Thus, the potential number of unemployed graduates after an internship (according to the results of our studies of the opinions of employers in the Krasnoyarsk Territory) is 40% of the total number of graduates sent to it. This confirms the second part of hypothesis 1 about the readiness of employers for internships in the presence of financial support from the state. It should be noted that these are the minimum possible parameters, since according to the information of the Ministry of Labor and Social Development, the effectiveness of such internships is higher and amounts to 71%, i.e. 29 % graduates remain unemployed (Ministry of Labor of Russia, 2020). The parameters of graduate employment after the internships at the level of 40% (minimum values) of the

total number (Figure 1) were included into the TCS calculations (2) to take into account the influence of the SE variable associated with the internship.

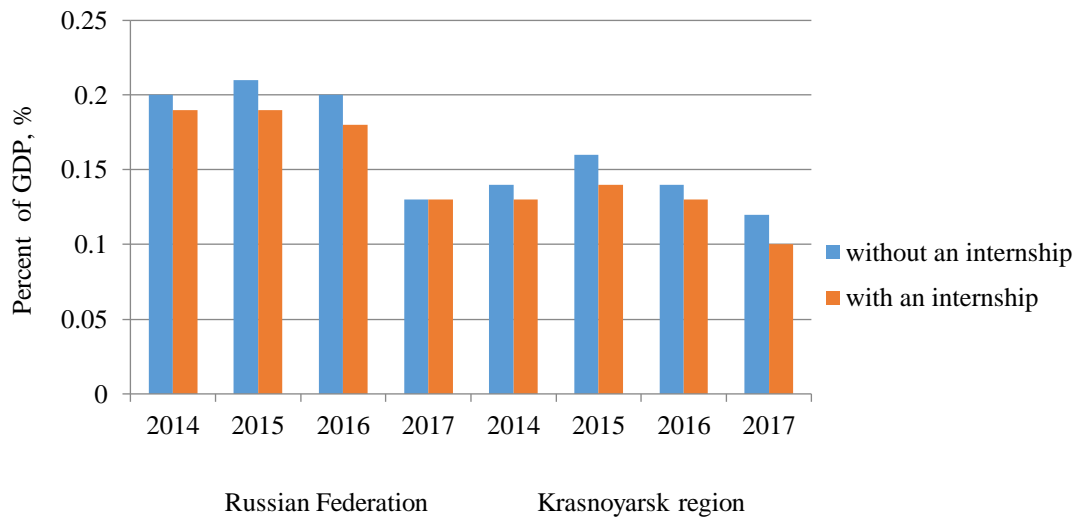


Figure 01. Assessment of the transaction costs of the state for the "entry" of university graduates into the labor sector

6. Findings

Thus, the TCS implemented by the state for the period from 2014 to 2017 for graduates of universities, calculated according to the first version of formula 2 (without internships, since there were none during this period), make up impressive figures: from 116502.1 mln. rubles. in the Russian Federation (02.2% of GDP) and 1971.3 million rubles (0.14% of GDP) in the Krasnoyarsk Territory in 2014; to 115721.2 million rubles. in the Russian Federation and 2174.2 million rubles. in the Krasnoyarsk Territory in 2017. At the same time, the highest costs both in the Russian Federation and the Krasnoyarsk Territory were observed in 2015, respectively: 135,993.94 million rubles (0.21% of GDP) and 2610.9 million rubles (0.16 % Of GDP). The fluctuations of the TCS (the first version of the calculation according to formula 2) in dynamics were due to several factors: for example, in 2015 there was the maximum number of university graduates for the period under review - 1300.5 thousand people in the Russian Federation and 20.1 thousand people in the Krasnoyarsk Territory, which caused an increase in government costs. After that, these values are only reduced due to the optimization of the higher education system, due to the demographic problems. The dynamics of GDP growth (at a faster pace in the Krasnoyarsk Territory than in the Russian Federation), a reduction in employment also leads to the costs growth. The graph illustrates the impact of the introduction of internships as a mandatory element of an active policy of employment in the context of graduates (young professionals). So, subject to the application of internships in 2014, when calculating TCS according to formula 2 (the second calculation option), the state's costs of "entering" university graduates are significantly lower: 104854.5 million rubles. (0.19% of GDP) in the Russian Federation and 1793.2 million rubles (0.13% of GDP) in the Krasnoyarsk Territory.

The dynamic model of transformation of the transaction costs of the state for the "entry" of graduates (young specialists) into the labor sector, calculated with universities, (Table 01) clearly demonstrates the importance of the institution of internships funded by the state, both at the federal and regional levels.

Table 01. A dynamic model of the transformation of transaction costs of the state for the "entry" of the graduate into the labor sector (universities)

Year	TES Mln. rbl.	SL (variabl.), %	SC (variabl),%	Including, %		
				Curgp (const)	Curgsr (const)	Curgi (variabl)
Before the introduction of the internship RF						
2014	116502.1	99.8	0.2	0.15	0.05	0
2015	135993.97	99.81	0.19	0.14	0.05	0
2016	134734.1	99.83	0.17	0.13	0.04	0
2017	115721.2	99.84	0.16	0.12	0.04	0
After the introduction of the internship						
2014	104854.5	98.5	1.5	0.17	0.06	1.27
2015	124184.8	98.68	1.32	0.15	0.05	1.12
2016	120789.5	98.66	1.34	0.14	0.04	1.16
2017	125405.7	98.79	1.21	0.11	0.04	1.06
Before the introduction of the internship Krasnoyarsk Region						
2014	1971.3	99.8	0.2	0.15	0.05	0
2015	2610.9	99.84	0.16	0.12	0.04	0
2016	2427.823	99.84	0.16	0.12	0.04	0
2017	2174.2	99.86	0.14	0.11	0.03	0
After the introduction of the internship						
2014	1793.2	98.73	1.27	0.17	0.06	1.04
2015	2365.9	98.93	1.07	0.13	0.04	0.9
2016	2204.1	98.78	1.22	0.13	0.04	1.05
2017	1974.1	98.79	1.21	0.12	0.04	1.05

At the same time, originally expressed hypotheses 2 and 3 are confirmed: certain elements of an active policy of population employment (in particular internships) influence the reduction of the general state transaction costs on the graduate's "entry" into the labor sphere despite the increase in state expenditures (part of the SE) on this element (internships). The appearance of a controlled variable in the form of state cost on an internship implements "migration" changes in terms of formula (2) for state losses (SL), which are reduced when this element is used. Table 1 highlights this effect in the form of the dynamics of specific weights of various variables of TCS. It also confirms the validity of making the abovementioned adjustments into the original formula (1) taking into account the employment of trainees-graduates during the internship, employed after the internship into the production of GDP; tax payments; insurance payments from wages; clarification of the actual expenses on internships (coefficient A, insurance payments on minimum wages for internship participants, both trainees and tutors)), providing "migration" changes in the variables of the formula, leading in general to lower government costs. The results obtained in the course of work are described.

7. Conclusion

Thus, the internship is a tool of the state to improve the mechanism for promoting employment of educational organizations graduates (young specialists). This tool allows us to solve most of the problems of employment of this category of labour:

- to attract a greater number of unemployed young specialists (graduates) into the zone of state regulation of the labour market through the growth of their appeals to the state employment service;
- to ensure the formal “entry” of a graduate (young specialist) into the labour sector as a part of temporary employment, the formation of their primary work experience in the specialty, the receiving references from the employer for further employment;
- provide material incentives to employers, partially compensating the expenses associated with the temporary hiring of young specialists (graduates) who do not have practical work experience;
- increase the number of graduates (young specialists) employed by profession due to, on the one hand, their employment at the place of internship on an ongoing basis, and, on the other hand, increased chances of successful employment by their profession on the basis of confirmed primary work experience and references from employers.

In turn, the adjusted TCS assessment formula proposed by us (formula 2) is also a tool for determining the appropriateness of decision-making by the state in the context of modelling the scale of attracting graduates (young specialists) to internships and financing the associated expenses. Solving through internships the problems of employment of graduates (young specialists) at the micro level (graduate (young specialist), employer), the state participates in the processes of “redistributing” transaction costs on the young specialist (graduate) “entry” into the labour sector at the macro level. By funding internship programs for graduates (young specialists), the state bears not only the “burden” of material costs, but also receives “dividends” in the form of reduced losses from unemployed graduates (young specialists), expressed in the participation of graduates employed by profession (being temporarily employed during internship time, and subsequent employment on an ongoing basis) in the economic life of the country (GDP formation, taxes related to the use of labour). All these processes can be measured with the help of an improved formula for calculating the transaction costs of the state for entering a graduate into the labour sphere.

References

- Assistant (2019). *The minimum wage in the Krasnoyarsk Territory in 2019*. <https://assistentus.ru/mrot/v-krasnoyarskom-krae/>
- Borisov, A. F., Tarando, E. E., Pruel, N. A., Vorontsov, Y. A., & Trofimova, T. A. (2019). Interaction of employers and universities in training and employment of young professionals. *International Journal of Recent Technology and Engineering*, 3(8), 7336 – 7343.
- Consultant Plus (2019). *On employment in the Russian Federation: Federal Law of 04.19.1991 No. 1032-1 (as amended on 02.12.2019)*. <http://www.consultant.ru/cons/cgi/online.cgi?req=doc&base=LAW&n=329361&fld=134&dst=1000000001,0&rnd=0.9389574817389514#05569157704834726>

- Endovitsky, D. A., & Durakova, I. B. (2019). Global labor market: providing employment opportunities for young professionals. *International Journal of Recent Technology and Engineering*, 3(8), 7301 – 7307.
- Fedchenko, I. V. (2014). *Formation of effective employment of graduates of educational institutions of higher education* (Doctoral Dissertation). Tomsk.
- Garavan, T., Morley, M., Gunnigle, P., & Collins, E. (2001). Human capital accumulation: the role of human resource development. *Journal of European Industrial Training*, 2-4(25), 48 – 68.
- Glushach, A. V., & Bishops, C. B. (2014). The socio-economic nature of transactions, their types and features of manifestation in the labor market. *Business Inform*, 5, 8-13.
- Iankovets, T. (2018). Round of human capital development in the context of forming the economy of knowledge. *Eureka: Social and Humanities*, 2, 3 – 9.
- Iurieva, L. V., Sinianskaia, E. R., Ilina, A. V., & Savostina, O. V. (2017). Personnel costs as an element of investment in regional human capital. *European proceedings of social & behavioral sciences*, 302-317.
- Kibanov, A. Ya., & Dmitrieva, Yu. A. (2019). *Managing the employment of university graduates in the labor market*. INFRA-M.
- Komsomolskaya Pravda (2019). *The size of unemployment benefits*. <https://www.krsk.kp.ru/daily/25973/2909405/>
- Lobanova, E. E., & Pisankova, M. M. (2011). Evaluation of the economic transaction costs of the reproduction process of the primary resource of labor. *Russian Entrepreneurship*, 6(1), 62-68.
- Lobanova, E. E., & Pisankova, M. M. (2015). Optimization of the economic costs of entering university graduates in the labor sector. In *Human resource management is the basis for the development of an innovative economy* (pp. 200-205). SibSAU.
- Ministry of Labor of Russia (2019). *The sizes of the minimum and maximum values of unemployment benefits for 2014*. <https://rosmintrud.ru/employment/employment/360>
- Ministry of Labor of Russia (2020). *Information of the Ministry of Labor and Social Protection of the Russian Federation of August 13, 2013 "On the implementation of the items of the Action Plan for 2012 - 2013 on the implementation of the Strategy for International Youth Cooperation of the CIS Member States for the period up to 2020 on youth employment and labor mobility"*. <https://base.garant.ru/70430284/>
- Protasova, E. N. (2013). Features of transactions and transaction costs in the labor market. *Global Scientific Rabota-enisey.ru* (2020). *Long-term target program "Reducing tensions in the labor market of the Krasnoyarsk Territory for 2009 - 2011"*. <http://www.rabota-enisey.ru/project/DCP>
- Razumova, T. O., & Zolotina, O. A. (2019). Features of employment of graduates in the Russian labor market. *Bulletin of Moscow University*, 2(6), 138 - 157.
- Rosstat (2018). *Labor force, employment and unemployment in Russia (results of sample labor force surveys)*. https://www.gks.ru/free_doc/doc_2018/rab_sila18.pdf
- Rudenko, D. Y., & Tilimbaeva, A. B. (2013). Investment in human capital and socio-economic development: relationship analysis and impact evaluation. *Tyumen State University Herald*, 11, 17-25.
- Shmanev, S. V., & Shmaneva, L. V. (2019). The human capital investment in the modernization of the real economy sector. In *The European proceedings of social & behavioral sciences* (pp. 836–842) Future Academy.
- Tax News (2019). *The value of the minimum wage in 2013 - 2020 in Russia*. https://nalog-nalog.ru/posobiya/posobie_po_vremennoj_netrudosposobnosti_bolnichnyj_velichina-mrot-v-rossii-tablica/#Table%20MROT%20by%20years
- Vokoun, M., Caha, Z., Straková, J., Stellner, F., & Váchal, J. (2018). The strategic importance of human resources management and the roles of human capital investment and education. *Scientific Papers of the University of Pardubice. Series D: Faculty of Economics and Administration*, 42(25), 258 – 268.
- Vostrova, E. I. (2011). *Ensuring the Effectiveness of the Use of Market Instruments in the System of Professional Education* (Doctoral Dissertation). Krasnoyarsk.
- Zakharova, O., & Kratt, O. (2014). The strategic importance of human resources management and the roles of human capital investment and education economic study and risk estimate of the investment in the human capital. *Economics & Sociology*, 2(7), 94 – 108.