

ICEST 2021**II International Conference on Economic and Social Trends for Sustainability of Modern Society****MOTIVATION AND KEEPING OF FACULTY MEMBERS OF
FEDERAL UNIVERSITIES**

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Abstract

The teaching staff of universities should be considered as a key element of the higher education system, ensuring the quality of the educational process. The changes which are taking place in the development of higher education and its main productive force, urgently require an adequate transformation of the methods of management. The article describes the features of motivation and keeping of teachers at Federal Universities. A comparison of the salaries of teachers of Russian and foreign universities is carried out; a significant gap is noticeable between the salaries of teachers of higher education in Russia and in developed countries, despite the trend towards an increase of salaries in Russia in the last decades. The mechanisms of keeping of teachers at federal universities at various stages of career management are investigated: recruitment, adaptation, motivation, creation of a personnel reserve, assessment, training and development. A survey of 99 teachers of the Kazan (Volga region) Federal University conducted by the authors showed that 30% of teachers think about changing their place of work in the upcoming year, they are mostly dissatisfied with the motivation system and the amount of remuneration. The costs of federal universities for the motivation and keeping of teachers and for their replacement are compared, which showed that the costs of replacement currently exceed the costs of motivation and retention. It was offered an algorithm to upgrade hold program of Federal Universities teachers.

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Keywords: Teacher motivation, teacher keeping, federal universities, university personnel management system

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1. Introduction

Questions motivating a staff were actively investigated by Armstrong (2010), Joy-Matthews (2012), Kibanov et al. (2010) and others. Immediately questions motivation and personnel management were studied in universities by Boyer (1996), Novikov (2014), Akulina and Shmeleva (2008), Varlamova and Larionova (2018), Varlamova and Larionova (2018), Abós and Haerens (2019), Vermote et al. (2020), Aelterman et al. (2019), Martin et al. (2021), Lozano-Jiménez et al. (2021) and others.

Motivation and keeping of teachers in universities implies the organization of a system of recruitment, adaptation, assessment, training and development of personnel, the creation of a personnel reserve. The inefficiency of the existing motivation mechanism is primarily due to the fact that wages in Russia have lost their reproductive, motivational, stimulating and other functions inherent in it, devaluing labor orientations towards increasing labor productivity and increasing the competitiveness of the labor force.

For modern higher education an urgent problem is the deepening of the crisis of social and labor relations due to the underestimation of the socio-economic significance of highly qualified labor and, as a consequence, the leveling of its results, the devaluation of labor values, a decrease in the content of labor functions, the transformation of labor from the basis of a lifestyle into a means of survival. A similar crisis is typical for other sectors of the economy, but in higher education it is especially critical, since the work of university workers has a specific character and is characterized by a duality of results. On the one hand, teachers, providing educational services, produce specialists for the national economy; on the other hand, teachers are active in scientific research, contributing to the development of an innovative model of the economy and the acceleration of the digitalization of society. It must be remembered that it is higher education that ensures the economic growth of any country, transforming the simple labor of workers into intellectual productive labor with high returns. Therefore, the preservation and development of the personnel potential of higher education is an urgent state task, the implementation of which appears to us through the construction of a system of motivation and keeping of teachers in universities.

The motivation of the teaching staff has its own characteristics, caused by the specifics of the activities of teachers. There are a number of features associated with the formation of a talent pool, training and keeping of teachers. We have analyzed the foreign experience of teaching and keeping faculty in Germany, the USA and Japan. In the studied foreign countries, it is used a flexible remuneration system, it has been introduced a system of transparent career growth and participation in the organization's profits, mentoring and the formation of a personnel reserve are widespread. Higher education workers in foreign countries are segmented into researchers and teachers on the basis of which their assessment and career advancement are carried out. The goal of teachers in foreign countries is to obtain long-term contracts and full-time positions.

2. Problem Statement

The domestic practice of labor motivation in the context of the creation of a competitive environment is fundamentally contrary to global trends. One of the mistakes of market reforms was that its authors assumed a purely economic motivation paradigm, which is not included social component. Economic

events focused on the restructuring of property relations, the financial and credit sphere, however, they had little to do with changes in the motivational mechanism in the world of work. Obviously, it was believed that the nature of the market in itself will shape the desire to raise labor productivity, increase its competitiveness. However, as practice has shown, it did not happen. Due to the lack of social and labor orientation of reforms among employees, interest in the growth of labor productivity, the manifestation of labor and innovation activity is massively lost, and many employers are not interested in meeting consumer demand and the quality of services, but in their own economic interests, profits from trade and intermediary operations, financial activities, personal income. Factors reducing the effectiveness of labor motivation are socially unfair wages, differentiation in income, unsatisfactory working conditions, forced underemployment, release of workers, unemployment - weak social protection, alienation of workers from the management process.

The teaching staff of universities (in the aggregate of its professional qualification, competence and personal characteristics) must be considered as a key element of the higher education system, ensuring the quality of the educational process and, most importantly, training specialists with a high level of professional competence and, accordingly, competitiveness. The results of the organization's activities and its competitiveness depend on the quality and efficiency of teachers' work, human resources have a decisive influence on improving the efficiency of activities. A high level of staff turnover leads to significant economic and social losses for the organization, arising at the time of dismissal and for a certain time after dismissal due to the need to replace staffing needs.

At the same time the reality shows that the priority external motivation for academics is salary. In the context of accelerating inflation and a decline in the purchasing power of the population, it is salary that acts as a kind of nerve center of the social organism.

3. Research Questions

The changes taking place in the development of higher education and its main productive force (the teaching staff), urgently require an adequate transformation of the methods of management of teaching collectives and individual employees in order to preserve the country's intellectual elite, prevent valuable employees from leaving higher education and their departure abroad, and further development and accumulation of their intellectual, human and social capital.

Research questions include:

- How big are the differences between teachers' salaries in foreign countries and in the Russian Federation.
- The costs references when the federal universities replace most of the teachers and the motivation and retention costs.
- Which of the federal universities of the Russian Federation has the most developed system of motivation and keeping of teachers
- Determination of job satisfaction of teachers at federal universities and the will to change jobs.

4. Purpose of the Study

The goal of this work was to research and modernize the mechanisms for keeping the most valuable teachers of higher education institutions.

Criteria to define the most valuable lecturers are formed on the basis of the requirements of the international rankings, placed on the federal institutions of higher education and on the basis of features of Federal University. Hence, we highlight some features in relation to the definition of especially valuable teachers at Federal Universities:

- focus on research and high publication activity
- presence of an academic degree
- presence of the competencies necessary to participate in innovative educational programs (online work, information and digital literacy)
- specialization in the framework of priority research areas

5. Research Methods

The study requires comparing personnel costs within Russian and foreign universities and analyzing local regulations of federal universities on the issues of keeping, organization of adaptation, training, motivation, creation of a personnel reserve of teachers.

We have compared the indicators of Federal Universities: the number of budget places, the place of the federal university in the ratings, the number and composition of the teaching staff.

The systems for the development of teachers at Federal Universities were analyzed. It was determined that a number of Federal Universities do not create a personnel reserve: Crimean Federal University named after V.I. Vernadsky, Northern (Arctic) Federal University named after M.V. Lomonosov, Ural Federal University named after the first President of Russia B.N.Yeltsin (UrFU) (Department for work with personnel and personnel policy *NCFU*, 2019; Shevchenko, 2019), Some Federal Universities make little use of the system for assessing the performance of teachers; there are no development programs for teachers. It was analyzed the training and professional development and selection criteria in the personnel reserve of the Federal Universities.

A survey of teachers of the Kazan (Volga region) Federal University was carried out to identify satisfaction with working conditions and a tendency to change jobs. The estimation of the ratio of expenses for motivation of teachers of the Kazan (Volga region) Federal University and for their replacement is carried out.

6. Findings

In accordance with statistical data, in recent years, there has been a stable increase in wages in the field of education in general and higher education in particular. Thus, the average monthly nominal wage increased in education as a whole from 1240 RUB in 2005 up to 30 258 RUB in 2017, in the field of higher education - from 8503 RUB up to 30 540 RUB, in the field of education for adults and other types of

education - from 6394 RUB up to 46 928 RUB. Despite the growth in the average monthly nominal wages in education, its ratio with the same indicator for the economy as a whole remains unsatisfactory. So, in 2017, this ratio was 77.3% for the economy as a whole (Table 1).

Table 1. Average monthly nominal wages of educators

Average monthly nominal accrued wages	Year								
	2005	2010	2011	2012	2013	2014	2015	2016	2017
Total, rub.	5430	14075	15809	18995	23458	25882	26928	28088	30258
Higher professional education	8503	21319	23180	26321	31666	35503	38185	41747	30540
Adult and other education	6394	16426	17786	19861	20898	21736	27621	23601	46928
Average monthly nominal accrued wages as a percentage of wages in the economy as a whole	63.5	67.2	70.2	71.3	78.7	79.6	79.1	76.5	77.3

Note. Made on the basis of data: (Bondarenko et al., 2020; Education indicators, 2020, p. 351-353).

Comparative analysis of teachers' salaries in domestic and foreign universities indicates its significant differentiation. If in Russian Universities in 2018-2019 the average salary was about 45 000 RUB (640 USD), in Canada – 7 2 000 USD, Italy – 7 000 USD, South Africa – 6 500 USD, India – 6 100 USD, US – 6 100 USD (Table 2).

Table 2. The size of salaries of teachers of higher education institutions in the countries of the world

Country	Minimum wage, thousand USD	Average salary, thousand USD	Maximum salary, thousand USD
Canada	5.7	7.2	9.5
Italy	3.5	7.0	9.1
South Africa	3.9	6.5	9.3
India	4.0	6.1	7.4
USA	5.0	6.1	7.4
Kingdom of Saudi Arabia	3.5	6.0	8.5
Great Britain	4.1	5.9	8.4
Australia	3.9	5.7	7.5
Netherlands	3.5	5.3	7.1
Germany	4.9	5.1	6.4
Norway	4.5	4.9	5.8
Israel	3.5	4.7	6.4
Nigeria	2.8	4.6	6.2
Malaysia	2.8	4.6	7.9
Argentina	3.2	3.8	4.4
France	2.0	3.5	4.8
Japan	2.9	3.5	4.6
Brazil	1.9	3.2	4.6
Colombia	2.0	2.7	4.1
Turkey	2.2	2.6	3.9
Czech Republic	1.7	2.5	4.0
Mexican United States	1.3	1.9	2.7
Latvia	1.0	1.8	2.7
Kazakhstan	1.0	1.6	2.3

Country	Minimum wage, thousand USD	Average salary, thousand USD	Maximum salary, thousand USD
Ethiopia	0.9	1,2	1.6
PRC	0.3	0.7	1.1
Armenia	0.4	0.5	0.7

Note. Compiled on the basis of data (Kalinina, 2019)

Certainly, domestic teachers are dissatisfied not so much with the size of their salaries as with the lack of its connection with the results of their work, chaos in the ratio of salaries of teachers in different regions, excessive differentiation in the salaries of heads of universities and ordinary teachers. As a result, we have staff turnover, instability of teams, loss of intellectual and innovative potential.

Based on the analysis of the provisions on the personnel reserve, programs for the development of personnel potential, reports of the rector, etc., an algorithm was drawn up for the modernization of the keeping program for teachers at Federal Universities (Table 3).

Table 3. Algorithm for modernizing the faculty keeping program for Federal Universities

Hiring	Adaptation	Evaluation	Motivation	Personnel reserve	Training	Development
creation of an external personnel reserve from among graduates and postgraduates	welcome trainings, mentoring within structural divisions	Carry out the relationship between assessment and motivation	Teacher remuneration should be based on performance indicators for the year and for the quarter	link the selection criteria for the personnel reserve with the strategic objectives of the federal university (grants, projects, publications, citations); determine the procedure for evaluating candidates for the reserve according to the selected criteria; provide a system of preferences for reservists (expanded training opportunities, internships, etc.); introduce a mentoring system for reservists, for	Specialization of study programs and exchange rates between federal universities	Rotation of personnel within the framework of internships at federal universities

example, in
 the format of
 developing a
 joint project
 with a
 mentor;
 conduct an
 annual
 assessment of
 the
 effectiveness
 of the talent
 pool

Note. Compiled by the authors

Keeping the employees costs a lot, but it should be noted that the cost of developing a valuable employee should be comparable to the cost of adapting a new employee. An assessment of the costs of retaining and replacing teachers at Kazan (Volga Region) Federal University has been carried out. The salary of an employee, the cost of advanced training once every 3 years, the average bonus payments for the year, the cost of forming a personnel reserve, the cost of travel, etc. It was revealed that the cost of keeping an associate professor of Kazan (Volga Region) Federal University is lower than the cost of replacement employee by 23.8%. It should be noted that most of the funds are spent on keeping and financial motivation, and only about 8% on training.

7. Conclusion

As a result of the analysis, the following conclusions were obtained:

1. The average salaries of higher education teachers in developed countries are significantly higher than the average for the Russian Federation, which creates additional incentives for intellectual migration. Thus, the salaries of teachers in higher educational institutions of the Russian Federation are 15 times lower than similar indicators in Canada, 12 times lower than in the United States and 7 times lower than in Japan.
2. The cost of replacing the most valuable teachers of the Kazan (Volga region) Federal University is 23.8% higher than the cost of keeping and motivation, only 8% of the cost is spent on training, which speaks of the need to revise the system of motivation and retention of teachers.
3. A survey of teachers at Kazan (Volga Region) Federal University showed that 30% of teachers think about changing jobs in the upcoming year, they are mostly dissatisfied with the motivation system and the amount of remuneration, although staff turnover remains within 5%.
4. Analysis of the internal regulations of the federal universities show the development of opportunities for training teachers in the Siberian and Southern Federal Universities, lack of personnel pool in Crimean Federal University named after V.I. Vernadsky, Northern (Arctic) Federal University named after M.V. Lomonosov, Ural Federal University named after the first Russian President Boris Yeltsin (UFU).

Thus, it is necessary to conclude that the keeping and development of employees is currently more economically feasible for federal universities than replacing the most valuable employees. Based on this, the system of material motivation and the system for the development of teachers requires a revision and redistribution of funds towards the development and training of personnel.

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