

# STATISTICS OF EMPLOYMENT OF GRADUATES FROM THE HIGHER INSTITUTIONS OF THE RUSSIAN FEDERATION IN 2015

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## Štatistické údaje o zamestnanosti absolventov vysokých škôl v Ruskej federácii v roku 2015

***Abstract:** This paper presents the results of the first monitoring of graduates' employment from Russian universities conducted in April 2015 by the Ministry of Education and Science in cooperation with the Pension Trust. We considered the goals, objectives, milestones and key performance indicators of the monitoring. The majors of training of graduates with the highest percentage of employment and the highest salary levels have been identified. We paid special attention to the employment indicators in the Volgograd region. The paper deals with the trends in migration geography of graduates and the dynamics of their salaries in 2013 in Russian regions in the context of the major economic institutions.*

***Keywords:** monitoring of universities effectiveness, graduates' employment, migration of graduates*

**JEL Classification:** Y 10, J 31, J 61

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## 1 Introduction

In May 2015, in Yerevan (Armenia), The Fourth Bologna Policy Forum and the Ninth Conference of Education Ministers of the European Higher Education took place. Over 100 delegates from 47 country-members of the

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Bologna process attended the event.

At meetings of the forum, key factors of development of higher education were discussed including fundamental values of higher education in the context of current political, social, economic and demographic challenges, migration flows, labour market requirements, and the use of modern technologies in higher education [4].

The Russian Federation joined the Bologna process in 2003 and this is considered to be an important step for the modernization of higher education in the country and for the promotion of the Russian higher education in the international research and academic spheres. It should be noted that due to its geographical position, Russia is actively building contacts with the Asia and Pacific region in the BRICS and APEC (Asia-Pacific Economic Cooperation) formats.

The main objectives of the Bologna process are expanding of access to higher education, further improvement of the quality and attractiveness of European higher education, increase of student and teacher mobility, ensuring successful employment of university graduates, as well as their better position in the labour market [1].

The monitoring of graduates' employment within the scope of the effectiveness monitoring of higher educational institutions was conducted for the first time in 2015 in order to estimate the graduates' employment by Russian Ministry of Education. Before 2015, the index was provided by the Center of Labor and Employment [5, 6, 7]. The Pension Trust has conducted a survey to estimate the average salary of graduates, to compare the average income in Russian regions, and in different majors of training.

## **2 Objectives, targets, milestones and indicators of the monitoring**

### *2.1 The aim of the monitoring*

The aims of monitoring include the impact of graduates' employment; calculation of the proportion of graduate employment; the share of individual entrepreneurs; employment geography and graduates' income.

## *2.2 The objectives of the monitoring*

1. The use of data of the Russian Pension Trust in assessing of the employment demand for university graduates in the labour market.
2. Comprehensive analysis of graduates' employment effectiveness.
3. To provide students and their parents with accurate information about the effectiveness of graduates' employment.

## *2.3 Stages of monitoring of graduates' employment*

1. At the first stage, universities provide information on issued certificates of higher education to graduates (surname, first name, date of birth, gender) to the Federal Register of higher education diplomas.
2. At the second stage, the provided information is checked and processed. The data on the following categories of graduates are excluded: those who continue their education (according to the FIS GIA, the Federal Information System responsible for secondary school final examinations and recording the enrolment into secondary vocational and higher education institutions), graduates of foreign universities and their branches and alumni of additional and secondary educational programs. After being checked, the data on graduates are grouped into sets according to the following attributes: educational institution, year of graduation, major of training, qualification and sex. The generated sets are transferred to the Russian Pension Trust for further processing.
3. At the third stage, the Russian Pension Fund reveals graduates with incorrect date of birth; then each set is determined regarding the primary quantitative indicators obtained during the first calendar year following the year of graduation: the fact of employment (at least one pension fund contribution produced in 12 months), number of individual entrepreneurs, and the average income amount of graduates.
4. At the fourth stage, the calculation of the employment proportion for each educational institution (university or its branch) is done, foreign graduates are excluded. The calculated value of the proportion of employment is rounded according to mathematical rule in the middle of the interval [-2.5%, + 2.5%) in order to ensure correct comparison of educational institutions with a threshold proportion of employment across regions and federal districts. In addition, a detailed analysis of the obtained data

from the Pension Trust in the context of aggregated groups of specialties is conducted [2].

Ultimately, data on 1,198,732 graduates of 2013 were processed, we found out that 892 162 graduates of them were employed in 2014 (74%) [3].

Table 1

#### Universities involved in monitoring

№	Type of institution	Number	%
1	State	518	57
2	Municipal	10	1
3	Private	381	42
	Total	909	100

**Source:** <http://graduate.edu.ru/content/booklet.pdf/>.

*Notes:* We structured the data by type of university and calculated the percentage for types of institutions for illustration purposes.

The data analysis presented in the table shows that in 2013 the proportion of public higher education establishments in Russia was 57% that of private universities was 43%. The unemployment rate among the population aged 25-35 in recent years is in the range of 30-40%. Based on the number of employed graduates (equal to 74%) it can be concluded that the percentage of the unemployed graduates is 26%, which is lower than the average among this category of age group.

### 3 Data on Volgograd

#### Overall employment statistics

We included data on 13 institutions and 25 branches.

The employment proportion of graduates is 75%, of which the proportion of individual entrepreneurs is 1%.

Volgograd population is about 1 million people.

Table 2

## Educational institutions in the region (Volgograd)

№	Institution	Employment proportion (%)	Number of graduates	Employed graduates who left Volgograd		Employed graduates living in Volgograd	
				Number	Average income (rubles)	Number	Average income (rubles)
	<b>Total in Volgograd</b>	<b>75</b>	<b>19 918</b>	<b>4 641</b>	<b>27 638 (368 €)</b>	<b>10 369</b>	<b>17 213 (229 €)</b>
	<b>State institutions</b>						
1	Technical University	85	2 530	618	32 574	1 383	21 051
2	Agricultural University	80	1 915	441	24 339	1 031	17 221
3	Social and Pedagogical University	80	1 809	344	26 121	1 087	15 465
4	State University	78	1 601	466	27 571	752	16 473
5	Architecture and Construction University	80	1 372	316	29 305	734	17 231
6	Medical University	75	818	175	26 747	308	15 150
7	Academy of Physical Culture	75	527	114	27 175	280	14 520
8	Conservatory	100	22	8	29 050	14	15 593
	<b>Private institutions</b>						
1	Institute of Economics, Sociology and Law	65	400	93	27 756	169	16 235
2	Volgograd Institute of Business	70	1 244	289	23 385	586	15 016

Source: <http://graduate.edu.ru/passport#/?items=18&slice=6>

Notes: Data are structured by types of higher educational institution; we modified the headline of the table, cut the names of universities for illustration purposes; income amounts are given in euro at the rate of 1 euro = 75 rub.

The data analysis presented in the table shows that graduates of the Technical Universities have the highest average salary in Volgograd; graduates of the Academy of Physical Culture get the lowest one. More than half of the graduates of the State University and the Medical University moved to other regions after graduation.

Table 3

**Majors of training (Volgograd)**

№	Major	Number of graduates	Employed graduates who left Volgograd		Employed graduates living in Volgograd	
			Number	Average income (rubles)	Number	Average income (rubles)
1	Economics and Management	938	255	35 310 (471 €)	503	19 877 (265 €)
2	Law	541	84	22 739 (303 €)	218	14 930 (199 €)
3	Computer and Information Sciences	24	9	40 178 (536 €)	11	13 327 (178 €)
4	Sociology and social work	30	8	28 813 (384 €)	14	19 443 (259 €)

**Source:** <http://graduate.edu.ru/passport#/?items=18&slice=6>

*Notes:* The author listed just a few majors, modified the table headline for illustration purposes; income amounts are given in euros at the rate of 1 euro = 75rub.

The data analysis presented in the table shows that in the context of training areas, the highest average salary in Volgograd is received by graduates of the enlarged group of specialization “Economics and Management”. Employment of graduates with training in other Russian regions can increase their income in 1.4 – 3 times.

Table 4

**Geography of migration of university graduates in the region (Volgograd)**

№	Region	Index of migration (people)	Number of graduates (people)		Ratio of the average amount of income of graduates who left the region to the average payout of those remaining	Average proportion of graduates' employment in the region (%)
			having arrived in the region	having left the region		
1	Krasnodar Territory	-346	380	34	1,4	70
2	Stavropol Territory	9	39	48	1,0	67
3	Astrakhan Region	-135	199	64	1,2	74
4	Volgograd Region	0	10 369	10 369	1,0	76
5	Voronezh Region	50	33	83	1,0	74
6	Samara Region	-410	457	47	1,4	84
7	<b>St. Petersburg</b>	<b>-317</b>	<b>342</b>	<b>25</b>	<b>1,5</b>	<b>77</b>
8	<b>Moscow</b>	<b>-267</b>	<b>1 801</b>	<b>1 534</b>	<b>1,8</b>	<b>72</b>
9	<b>Moscow Region</b>	<b>-274</b>	<b>284</b>	<b>10</b>	<b>1,7</b>	<b>73</b>
10	Rostov Region	-191	333	142	1,1	74
11	Saratov Region	90	167	257	1,3	77

Source: <http://graduate.edu.ru/passport#/?items=18&slice=6>

Notes: The author modified the headline of the table for illustration purposes.

The data analysis presented in the table shows that in neighbouring Volgograd regions (except the Voronezh Region) the average salary of graduates is higher than in Volgograd. The maximum graduates' income is observed in the Moscow Region (Moscow and the Moscow Region) and St. Petersburg. It should be noted that the largest number of graduates from Volgograd are leaving for Moscow. At the same time, a sufficient number of graduates come back to work in their hometown Volgograd after graduation from the leading universities of the country which are generally situated in Moscow.

### Relative labour migration

The ratio of the number of graduates who left the region to the number of those remaining is 0,4.

The ratio of the average amount of income of graduates who left the region to the average payout of remaining graduates is 1,6.

## 4 Data for Moscow

### Overall employment statistics

We included data on 217 institutions and 8 branches.

The employment proportion of graduates is 71%; out of which the proportion of individual entrepreneurs is 1%.

The population of Moscow is 12 million people.

Table 5

### Educational institutions in the region (Moscow)

№	Institution	Employment proportion (%)	Number of graduates	Employed graduates who left Moscow		Employed graduates living in Moscow	
				Number	Average income (rubles)	Number	Average income (rubles)
	<b>Total in Moscow</b>	<b>71</b>	<b>235 599</b>	<b>70 926</b>	<b>28 728</b> <b>(383 €)</b>	<b>97 403</b>	<b>46 533</b> <b>(620 €)</b>
1	Lomonosov Moscow State University	75	6 630	527	40 180	4 081	53 411
2	RANEPА	70	3 199	689	72 891	1 410	83 113
3	Financial University	85	9 639	3 082	29 801	5 100	55 958
4	Russian Economic University of Plekhanov	80	5 591	763	45 696	3 604	53 347
5	Higher School of Economics	85	4 020	439	50 697	2 775	60 721
6	Bauman Moscow State Technical University	90	2 369	427	48 867	1 604	56 177

Source: <http://graduate.edu.ru/passport#/?items=45&slice=6>

Notes: Data are structured by types of higher educational institution; we modified the headline of the table, cut the names of universities for illustration purposes.



The data analysis presented in the table shows that the average amount of monthly income of graduates in Moscow 2.7 times higher than that in Volgograd. The proportion of employment is slightly lower (4%) than in Volgograd. The leaders having the highest average salary are graduates of the RANEPА and of the Higher School of Economics specializing in the areas of economics and management. The next in the list is Lomonosov Moscow State University (the leading university in Russia) and Bauman Moscow State Technical University (one of the best technical universities in Russia).

Table 6

**Majors of training (Moscow)**

№	Major	Number of graduates	Employed graduates who left Moscow		Employed graduates living in Moscow	
			Number	Average income (rubles)	Number	Average income (rubles)
1	Law	342	69	53 943 (719 €)	160	78 376 (1045 €)
2	Economics and Management	2 566	566	77 109 (1028 €)	1 129	83 890 (1119 €)
3	Informatics and Computer Engineering	305	29	56 093 (748 €)	242	64 108 (855 €)

**Source:** <http://graduate.edu.ru/passport#/?items=45&slice=6>

*Notes:* The author listed just a few majors, modified the table headline for illustration purposes, income amounts are given in euros at the rate of 1 euro = 75rub.

The data confirm the conclusions drawn from the data on Volgograd and demonstrate a high level of salaries of graduates in specialization economics and management.

Table 7

## Geography of migration of university graduates in the region (Moscow)

№	Region	Index of migration (people)	Number of graduates (people)		Ratio of the average amount of income of graduates who left the region to the average payout of those remaining	Average proportion of graduates' employment in the region (%)
			having arrived in the region	having left the region		
1	Altai Territory	222	479	701	0,4	78
2	Krasnodar Territory	-243	2 124	1 881	0,6	70
3	Krasnoyarsk Territory	-163	960	797	0,7	76
4	Primorye Territory	249	394	643	0,7	71
5	Stavropol Territory	935	551	1 486	0,5	67
6	Khabarovsk Territory	279	308	587	0,9	78
7	Amur Region	-124	305	181	0,5	75
8	Vladimir Region	261	773	1 034	0,4	81
9	Volgograd Region	267	1 534	1 801	0,4	76
10	Voronezh Region	637	1 413	2 050	0,6	74
11	Nizhny Novgorod Region	-151	2 255	2 104	0,7	74
12	Ivanovo Region	483	374	857	0,3	78
<b>13</b>	<b>Kamchatka Territory</b>	<b>-146</b>	<b>211</b>	<b>65</b>	<b>1,0</b>	<b>72</b>
14	Saint Petersburg	1 618	3 478	5 096	0,8	77
15	Leningrad Region	-167	281	114	0,6	80
<b>16</b>	<b>Magadan Region</b>	<b>-363</b>	<b>406</b>	<b>43</b>	<b>1,1</b>	<b>81</b>
17	Moscow	0	97 403	97 403	1,0	72
18	Moscow Region	-10 789	18 238	7 449	0,7	73
19	Novosibirsk Region	943	658	1 601	0,7	79
<b>20</b>	<b>Chukotka Autonomous Region</b>	<b>-44</b>	<b>47</b>	<b>3</b>	<b>1,9</b>	<b>85</b>
<b>21</b>	<b>The Republic of Sakha (Yakutia)</b>	<b>-381</b>	<b>492</b>	<b>111</b>	<b>1,1</b>	<b>75</b>
<b>22</b>	<b>Nenets Autonomous Region</b>	<b>-43</b>	<b>43</b>	<b>0</b>	<b>1,5</b>	<b>0</b>
<b>23</b>	<b>Khanty –Mansiysk Autonomous Region – Yugra</b>	<b>-459</b>	<b>610</b>	<b>151</b>	<b>1,2</b>	<b>83</b>
<b>24</b>	<b>Yamalo –Nenets Autonomous Region</b>	<b>-487</b>	<b>508</b>	<b>21</b>	<b>1,7</b>	<b>83</b>

Source: <http://graduate.edu.ru/passport#/?items=45&slice=6>.

Notes: The author modified the headline of the table for illustration purposes.

The data analysis presented in the table shows that the average amount of income among the graduates in Moscow is higher than in most regions of Russia. The regions where salaries are higher than in Moscow are given in bold. This is due to the specific industries in these regions (oil, gas, gold, diamonds, etc) and the increased regional wage coefficient.

### **Relative labour migration**

The ratio of the number of graduates who left the region to the number of graduates remaining is 0,7.

The ratio of the average amount of income of graduates who left the region to the average payout of those remaining is 0,6.

### **5 Conclusion**

In conclusion, we can state that:

1. The Analysis of graduates' employment and average payments shows that economists and lawyers are the top-paid professions in Russia. This is despite the fact that the Ministry of Education is constantly stating that their number is too high.
2. Computer and Information Sciences are at the bottom of the top three highly paid professions, which is consistent with modern global trends of the priority development areas.
3. Salaries in Moscow and in the Moscow Region in all majors of training are considerably higher than in the other cities of Russia. It should be noted that the value of life in Moscow is higher than in other regions.
4. It should be noted that levels of education (4-year Bachelor's degree, 2-year Master's degree and 5-year Specialist's degrees) also influence the average income level. The highest salaries are among Master's degrees undergraduates, it is a consequence of their learning and working at the same time in the relevant employment field and by the time they graduate they already have highly paid jobs.
5. The monitoring conducted by the Ministry of Education of Russia contains a large amount of data on regions of Russia and if the monitoring will be continued in the next year, it will be possible to determine the dynamics of the above indicators.

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