

ROLES OF VET IN GENERATING A NEW ENTREPRENEUR INCREATIVE ECONOMY SECTOR

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Abstract

In this article examines the role of vocational education today. Discusses the results of analyze of economy of vocational education on all level (lower vocational education, secondary vocational education, high vocational education). In recent years there were marked changes in the structure of training. The proportion of graduates in lower vocational and secondary vocational education decreased while the proportion of higher education graduates increased. Also discusses issues the needs of the economy in area of vocational education and development of applied bachelor in the vocational education. The presented material contains the main indicators of educational institutions' activities in the Russian Federation: contingent of students in vocational education programmes, personnel potential, condition of the infrastructure and financial resources. Data on the relation between education and the labor market is included.

Keywords: *Vocational education, lower vocational education, secondary vocational education, high vocational education.*

1. Introduction

Education is one of the most important areas of human activity. By level of education the population of Russia has a leading position in the world. The educational attainment of the employed population is rather high. According to the 2010 census over 78.7 % of the employed population had professional education, including higher and postgraduate education (31.7%) and secondary vocational education (36.6%). At the same time the proportion of the employed having secondary (complete) general education was almost 16% and that for basic general education – about 5% [2]. This data is twice the average for the specific weight of the population with a higher education (including after-school) and secondary vocational education, according to the Organization for Economic Cooperation and Development (OECD). In these countries, this indicator is equal 30% on average [8].

The Federal Law of 29.12.2012 №273- FZ «About education in the Russian Federation» (adopted on September 1st, 2013) says that education in RUSSIA is a **priority**. The Law fixes a number of innovations, including organizational, legal and economic spheres. Also this law gives

general definitions about education and vocational education.

2. Definitions

Vocational education is the kind of education aimed at the acquisition of knowledge, abilities, skills and competence formation of certain level and volume in the process of basic professional educational programs. That allows to conduct professional activities in a particular area and (or) to perform work on specific profession or specialty.

Vocational training is the kind of education aimed at the acquisition of knowledge, abilities, skills and competence formation required to perform certain labor, official activities [3].

Education in the Russian Federation is divided into:

- General education;
- Professional education;
- Additional education;
- Professional learning.

It provides the opportunity to realize the right to education throughout life (lifelong learning).

Also set the following levels of vocational education. Vocational education includes 4 levels:

- Secondary vocational education;
- Higher Education – Bachelor;
- Higher Education -Specialist and Master;
- Higher education – training highly qualified personnel (including training of the teaching staff and programs of residency, and programs of internship).

Law abolished the concept of “LOWER vocational education” and significantly expanded the concept of “SECONDARY vocational education”. Due to the cancellation lower vocational education it equivalent to secondary vocational education based on training programs for skilled workers. Secondary vocational education it equivalent to secondary vocational education based on training programs for mid-level professionals.

However, this does not mean that such training will not be taken into account: mastering of working professions will take place at organizations of secondary vocational education and in educational centers and in the workplace.

Vocational training is aimed at acquisition of professional competences (skills and qualifications) by people of different age groups who are going to work with specific equipment and technologies, hardware, software and other professional tools.

Vocational training is aimed at acquisition of professional qualifications by workers or employees without changing the level of education.

Vocational training can be carried out [3]:

- through the programs of vocational training for occupations and positions of workers or employees who have previously had no profession (Part 2. Article 73.);
- through the programs of retraining workers and employees for those who already have a profession (Part 3. Article 73.);
- through the programs of advanced training for individuals who already have a profession (Part 4. Article 73.).

Vocational training is free of charge (Part 5. Article 73.).

3. Main statistical indicators of vocational education

The system of vocational education is designed to provide requirements of staff in the economy of country. Educational institutions of vocational education in training specialists should focus on the demands of labor market. At the moment the economic potential of the country is largely determined by the quality of labor force, which can indicate the three most important vectors of education, professions and skills [1]. These three inter connected components determining the professionalism of any person.

Observed in the last decade, the crisis of professionalism in various spheres of the national economy is largely a resulting from the crisis of Russian education in system of vocational education at all levels (lower vocational education, secondary vocational education, high vocational education) [1]. This is confirmed by analysis (monitoring) of the Institute for Statistical Studies and Economics of Knowledge National Research University "Higher School of Economics" [7].

In 2011, the training of skilled workers and employees with **lower vocational education** carried out in 2870 by educational institutions on programs of lower vocational education, of them in 2040 with the educational institutions of lower vocational education. During 2000-2011 a network of educational institutions of lower vocational education has been reduced almost twice.

The number of students on programs of lower vocational education for the same period was decreased by 758 thousand persons or 45.2%. Enrolment in lower vocational education programmes in the same period was decreased by 37% and graduates of lower vocational education was decreased by 32.3%.

At the beginning of 2011-2012 academic year training with **secondary vocational education** was carried out in 2925 educational institutions of secondary vocational education and 518 branches of these institutions. State educational institutions and municipal educational institutions of secondary vocational education was 2665 and private institutions was 260. In a comparison with 2000-2001

academic years, the number of state and municipal institutions increased by 3%, private institutions by 2.3 times. However, the network of private educational institutions of **secondary vocational education** is still small. Number of preparation of graduates in private institutions are about 5% with depending of the population and enrollment of students with secondary vocational education.

The number of students in **secondary vocational education** decreased in recent years in Russia. The number of students has decreased by almost 20% if to compare to 2005 and 2006 academic year. These tendencies are characteristic for as state educational institutions and as private educational institutions and it provide training specialists with **secondary vocational education**.

The 1080 educational institutions of **higher vocational education** work at the beginning of 2011-2012 academic years in the country. State educational institutions and municipal educational with higher vocational education was 634 and private institutions was 466.

The number of state educational institutions and municipal institutions increased by 4%, and private institutions was increased by 25% with compared on the 2000-2001 academic years. However, in recent years one would notice a tendency of decreasing of the number of higher education institutions. This is related from changes in system of the higher vocational education. Started the process combining educational institutions of higher education. The purpose of combining the reduction of a large number of higher education institutions and also improve the quality of students through the integration of financial and material and technical and intellectual resources.

The number of training of students in private institutions are insignificant and constitute about 16% of the number of students and 12% of the enrollment of students and 20% of the graduate of specialists with secondary vocational education.

The number of students enrolled in programs of higher vocational education has increased on a third with compared to 2000 year. The unfavorable

demographic situation has caused a decreasing of enrolment of students in universities in the 2008-2009 academic years. But in the following year began to decrease and the number of students. In 2011-2012 academic years it was reduced on 13.6% with compared to 2008-2009 academic years [4]. Also like to tell about the financing of vocational education. In 2011 the budgetary funds were over 80 % in the structure of funds of state and municipal secondary vocational education institutions, and about 60% – for higher education institutions. In private education institutions the proportion of budgetary funds was about 1%. The lower vocational education institutions received 92% of financing from the budget. This is results you can see in table 1 in appendix. A table presenting the latest statistical information on the progress in vocational education [2].

4. Summary

Thus, as a result of the implementation of the State Program of the Russian Federation "Development of Education" from 2013-2020 a network of institutions and organizations of professional education will become a structure corresponding to the realities of present economy. In most universities, along with the educational programs of undergraduate and graduate programs will be implemented applied baccalaureate.

By 2020, all students will learn on individual curricula, including a significant proportion of independent work using information technology.

I would particularly like to note that the last few years, employers expanded their cooperation with these vocational education institutions. The percentage of companies that cooperated with universities has increased from 33 % to 43 % [8].

Employers coherently and sequentially evaluate your professional knowledge of graduates of university as "satisfactory". Opinions business leaders from different sectors of the economy are very similar. On the other hand, managers believe that graduates have a high ability to learn. They can learn new knowledge and to acquire job skills. The main form of cooperation between employers and

universities remains organization of practice periods and practice for students[5, 6].

Thus, we can expect that the quality and flexibility of modern vocational education in modern society will be achieved only with the active participation and students, and their families and employers. Now the Russian economy in need in staff of high qualification that can provide vocational education today. For change the role of vocational education needs new modern and innovative approaches and the use of methods of project, the use of network forms of integration of education, science and production, allowing to jointly developing innovative development program, corresponding to world level. Also needs use of technology platforms as innovative research and educational facilities and form regional clusters, providing economic conditions in a networked environment.

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Table 1. Main statistical indicators of professional education development[2]

	2000	2005	2007	2008	2009	2010	2011
Number of lower vocational education institutions, end of year	3893	3392	3180	2855	2658	2356	2040
Enrolment in lower vocational education programmes*, end of year: thousands	1679.3	1509.4	1256.1	1115.2	1035.2	1006.6	921.0
per 10 000 population, head-count	115	105	88	78	72	72	64
Entrants in lower vocational education programmes*: thousands	844.9	687.8	586.1	540.7	542.5	609.4	532.5
as a percentage of the population aged 15 years (entrants ratio)	34.2	32.0	34.2	35.8	36.2	42.3	39.1
Lower vocational education graduates*: thousands	762.8	702.5	656.0	604.7	537.6	580.5	516.7
per 10 000 population employed in the economy, head-count	118	105	96	88	80	86	76
as a percentage of the population aged 17 years (graduates ratio)	29.6	29.1	29.6	31.8	31.0	37.8	34.2
Number of secondary vocational education institutions, beginning of the respective academic year	2703	2905	2799	2784	2866	2850	2925
State and municipal institutions	2589	2688	2566	2535	2564	2586	2665
Private institutions	114	217	233	249	302	264	260
Enrolment in secondary vocational education programmes, beginning of the respective academic year, thousands	2360.8	2590.7	2408.2	2244.1	2142.1	2125.7	2081.7
State and municipal institutions	2308.6	2473.0	2288.5	2136.1	2052.3	2026.8	1984.0
Private institutions	52.2	117.7	119.7	108.0	89.8	98.9	97.7
Enrolment in secondary vocational education institutions per 10 000 population, head-count	161	181	169	157	150	149	146
Entrants in secondary vocational education programmes, thousands	867.2	854.1	770.7	703.0	694.4	705.3	659.6
State and municipal institutions	842.4	810.9	730.3	670.1	666.6	671.8	628.8
Private institutions	24.8	43.2	40.4	33.0	27.7	33.5	30.8
Entrants ratio in secondary	35.1	39.7	45.0	46.6	46.3	49.0	48.5

	2000	2005	2007	2008	2009	2010	2011
vocational education programmes (entrants in secondary vocational education programmes as a percentage of the population aged 15 years)							
Secondary vocational education graduates, thousands	579.3	684.4	698.5	671.1	630.9	572.1	518.0
State and municipal institutions	567.7	651.4	657.0	631.7	593.9	535.7	484.2
Private institutions	11.6	33.0	41.5	39.5	37.0	36.5	33.8
Secondary vocational education graduates per 10 000 population employed in the economy, head-count	90	102	103	98	94	85	76
Graduates ratio in secondary vocational education (secondary vocational education graduates as a percentage of the population aged 18 years)	23.6	27.2	30.4	30.1	33.0	32.2	33.7
Number of higher education institutions, beginning of the respective academic year	965	1068	1108	1134	1114	1115	1080
State and municipal institutions	607	655	658	660	662	653	634
Private institutions	358	413	450	474	452	462	446
Enrolment in higher education programmes, beginning of the respective academic year, thousands	4741.4	7064.6	7461.3	7513.1	7418.8	7049.8	6490.0
State and municipal institutions	4270.8	5985.3	6208.4	6214.8	6135.6	5848.7	5453.9
Private institutions	470.6	1079.3	1252.9	1298.3	1283.3	1201.1	1036.1
Enrolment in higher education programmes per 10 000 population, head-count	324	493	523	526	519	493	454
Entrants in higher education programmes, thousands	1292.5	1640.5	1681.6	1641.7	1544.2	1399.5	1207.4
State and municipal institutions	1140.3	1372.5	1384.0	1362.7	1329.6	1195.4	1057.7
Private institutions	152.2	268.0	297.6	279.0	214.6	204.0	149.7
Entrants ratio in higher education programmes (entrants in higher education institutions as a	50.1	68.0	75.9	86.4	89.1	91.1	80.0

	2000	2005	2007	2008	2009	2010	2011
percentage of the population aged 17 years)							
Higher education graduates, thousands	635.1	1151.7	1335.5	1358.5	1442.3	1467.9	1442.9
State and municipal institutions	578.9	978.4	1108.9	1125.3	1166.9	1177.8	1157.3
Private institutions	56.2	173.3	226.6	233.2	275.5	290.1	285.6
Higher education graduates per 10 000 population employed in the economy, head-count	99	172	196	198	214	217	213
Graduates ratio in higher education (higher education graduates as a percentage of the population aged 22 years)	28.8	45.6	53.8	53.7	56.6	60.2	61.7
Number of institutions with postgraduate courses, end of year	1362	1473	1490	1529	1547	1568	1570
Postgraduate courses enrolment, end of year, thousands	117.7	142.9	147.7	147.7	154.5	157.4	156.3
Number of institutions with doctoral courses, end of year	492	535	579	593	598	602	608
Doctoral courses enrolment, end of year, thousands	4.2	4.3	4.1	4.2	4.3	4.4	4.6
Youths enrolled in lower vocational, secondary vocational, higher and postgraduate education programmes (enrolment in lower vocational, secondary vocational, higher education institutions, postgraduate and doctoral courses as a percentage of the population aged 15–34 years)	20.5	25.0	25.2	24.8	24.5	23.8	22.7

*Beginning with 2010 including students studying according to commercial contracts.