## The new financing mechanism of institutions of higher vocational education in Russian Federation: the first results

Pirogova Olga Alexandrovna

Federal State-Funded Educational Institution of Higher Professional Education "Financial University under the Government of the Russian Federation", Leningradsky avenue, 49, Moscow, 125993, Russia E-mail: pirogova.olg@yandex.ru; Tel: +79164651986, +79162107595

**Abstract.** The article describes the features of higher education institution transition to the normative method of financial provision, highlights the necessity of usage this method and its advantages over other methods of state services financial provision. The article also presents the development of the legal base in the field of education and gives examples of specific changes, marks trend. In the article there is an analysis of the new mechanism of educational institutions financial provision in Russia and comparison with approaches to public financing of higher education institutions, used in foreign countries. The article presents a generally accepted algorithm of calculating of cost standard for state service rendering.

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## Introduction

The transition of Higher Professional Education Institution to normative financing is one of priority directions of budgetary policy in the Russian Federation. Russian Prime Minister Dmitry Medvedev signed June 3, 2013 the decree № 467 "On measures of realization the transition to per capita financing of nationally accredited educational program of higher education" [1].

Ministry of Education and Science of the Russian Federation aims to provide with the access to quality education all levels of the population as a basis for social mobility and for the reduction of the socioeconomic differentiation in the society [2]. Its successful solution, together with the decision of the other three tasks, will achieve the ultimate goal – the provision with the access to quality education all levels of the population as a basis for social mobility and for the reduction of the socio-economic differentiation in the society.

Note that during the last time in the native and foreign science questions on financial provision of public services, their quality and their role in socio-economic development began to rise. In many respects it was caused by the beginning of the reforming process of the state control system of the development in developed countries which was marked by the implementation of the administrative reform and by the changes in the budget system. Social importance of an adequate level of financial provision of public services for the first time was developed by P.

Samuelson in 1954; he put forward the concept of public goods. In the future, the concept was developed by R. Musgrave in the theory of socially meaningful (deserved) good [3].

Samuelson defines a public good as good with the following properties:

- 1. indivisibility granting a public good to one consumer allows to increase unrestrictedly the number of recipients without changing the cost and the quality of a good;
- 2. non-excludability the consumer cannot be excluded from the number of social good recipients (for example, using the service for non-payment);
- 3. Impossibility not to consume if the public good is provided, all members of the society without exception use it regardless of their desire to consume.

Relating to public finance the scientist offered the so-called Samuelson equation that indicates that the sum of the marginal rates of substitution of the public good for private in consumption equal to the substitution rate of a public good to a private in production.

His successor, R. Musgrave introduced the concept of the merit goods- public goods with expressed externalities. Externalities can be combined with the excludable goods of joint consumption. Health service and education are often among such goods [4]. R. Musgrave, P. Masgreym, Joseph Stiglitz dedicated their scientific works determining the

optimal size and structure of budgetary expenditures, and proposed to use the technique "cost-benefit" while deciding on the funding of public goods. In 1993, two American scientists, D. Schiff and B. Weisbord [5], formulated the theory of "the production of public goods". Problems of public finance and the financing of public goods are studied by such Russian authors as T.V. Abankina, I.V Vasileva, A.B Dolgin, S.P Solyannikova, N.A Sinitsyn, R.V Strizhenko, E.V Volkov

Current trends of changes in Russian legislation in the field of operation, funding and cooperation with state authorities' bodies of organizations which provides the population with public services, including higher professional education, focused on the realization of the transition to the budgeting concept oriented for the results. With regard to educational institutions, this concept accords the following provisions:

increase of objectivity in planning of financial resources of educational entities;

increase the motivation and the creation of conditions for the development of economic activities of educational institutions, and also providing additional educational services:

an interest in improving the activity quality, an increase of the population interest in obtaining the services of the institution, and an increase the competition between the educational institutions.

The realization of these provisions was reflected in the fundamental change in the financing mechanism of educational institutions: previously existed budgeted financing system was aimed at the maintenance of public institution's network.

Moreover, the budgeted financing system limited the right of educational institutions while perpetrating and executing the plan of income and expense:

established limits of budgetary appropriations, under which the budget was approved, were not linked to the need for finances;

the specification by budget classification codes excluded the mobile reassignment of funds between the budget items;

the restriction in the use of funds exists not only within financial year, but also within the quarter;

budget changes were only possible by agreement with the budget holder and only during the fixed dates;

the budget execution carried out only through separate accounts opened in the Federal Treasury.

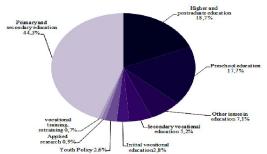
Note that education sector should cover all organizations engaged in educational activities, as well as private individuals. It should also include the family with children who are taught and trained. But

in practice, the process of the statistical moderation covered only part of the education sector.

As it seen from the data presented in table 1, about 30 million (21% of Russia's population) study and work in 100 thousand educational institutions [6]. Educational problems affect practically all members of society. As it can be seen from the table, the question of the adequacy of financial provision of educational services affects the interests of the great number of consumers.

The great resources, mostly the budgeting funds, are directed for the education sector maintenance. One of the main directions of the budgetary funds spending is the sector of education. In the Russian federation the part of consolidated budget expenditures on education is 11.2% in 2011, and 11.8% in 2012. Note that at the end of 2012 the part of expenditures on higher and postgraduate education was 18.7% in the Russian Federation consolidated budget expenditures in 2012 (picture 1).

It should be noted that the right to education is a basic and indefeasible constitutional right of citizens of the Russian Federation. The state provides this right by establishing a system of education and related socio-economic conditions for its getting. The table 2 shows some of them.

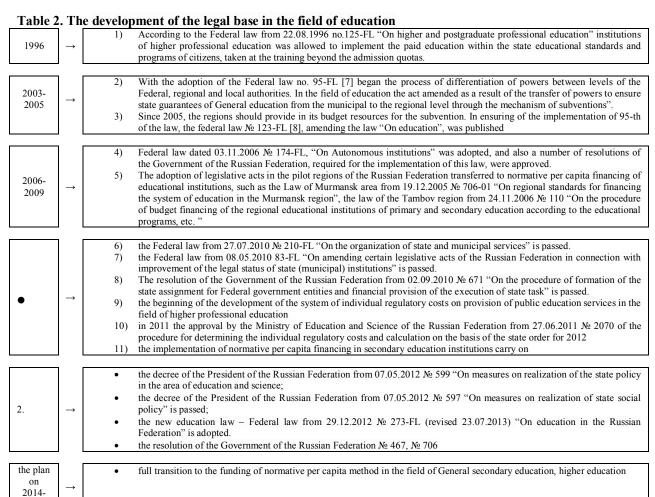


Picture 1. The structure of the Russian Federation consolidated budget expenditures on education, 2012

Three years passed since the reforming process of budgeting mechanism of budget-funded entities in the field of HVE, and moreover now the transfer from the cost sheet to subsidies, calculated on the basis of the individual costs of institutions, is finished. Also the next stage of transformation has begun – the transfer from a single individual standards to regulatory costs in the direction of training (specialties) per a unit of the public service. And if the first stage of the funding reform for higher education institutions was without serious consequences, because of the individual standards calculation based on the needs of each particular institution, the introduction of more universal standards raises some more concerns.

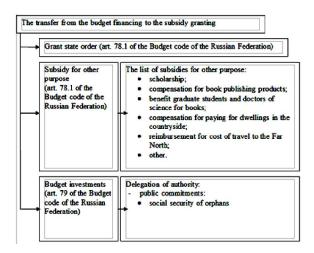
Table 1. Educational institutions and the number of students in the Russian Federation (at the beginning of the school year)

Index	2011/12	2012/13
the number of educational institutions (without shift-type educational institutions) which includes:	47 146	45 746
governmental and municipal	46 459	45 031
non-governmental	687	715
the number of students in educational institutions (without shift-type educational institutions) which includes:	13 445 800	13 537 300
in governmental and municipal	13 362 300	13 445 400
in non-governmental	83 500	91 900
the number of shift-type educational institutions	1 196	1 135
the number of students in shift-type educational institutions	292 000	267 200
the number of elementary vocational education institutions (at the end of 2011)	2 040	n/a
the number of students in educational institutions implementing programs of initial vocational training	921 000	n/a
the number of secondary vocational education institutions, which includes:	2 925	2 981
governmental and municipal	2 665	2 725
non-governmental	260	256
the number of students in educational institutions implementing programs of secondary vocational training which includes	2 081 700	2 087 100
in governmental and municipal	1 984 000	1 984 400
in non-governmental	97 700	102 700
the number of higher professional education institutions which includes:	1 080	1 046
governmental and municipal	634	609
non-governmental	446	437
the number of students in higher professional education institutions which includes:	6 490 000	6 073 900
in governmental and municipal	5 453 900	5 143 800
in non-governmental	1 036 100	930 100
the number of pre-school educational institution	44 900	n/a
the number of students of pre-school educational institution	5 661 000	n/a



2016

The Mechanism of educational institutions financial support in Russia is presented below (picture 2).



Picture 2. Mechanism of financial security of educational institutions

In order to prove the effectiveness and the prospects of the reforms it's necessary to consider the foreign experience.

There are three main approaches to public financing of higher education institutions, used in foreign countries.

- 1. In most developing countries, budgetary funding is done on a contractual basis. One of the main features of contractual funding is that the budgetary provisions are weakly connected with the results of the university activity.
- 2. The financing of universities may be carried out in accordance with the cost of training on the basis of per capita normative method (Canada, Britain, France, Japan, Sweden, Norway, some developing countries of Asia and Africa). The normative per capita financing implies that the government in administrative way establishes the regulations on training cost or the cost is defined according to the results of competition between universities for budgetary provisions (the winner is the one who offers the lowest training cost of adequate quality level).
- 3. Financing "by the results" In this case, the system of budgetary funds focused on the achievement of certain targeted results. Budget funds are usually allocated to universities according to the actual graduation of students and post-graduate students. This approach is used in Denmark, Finland, Israel, the Netherlands and in some other countries.

It's interesting to notice that at the present time the majority of countries aims at the usage of combined approaches trying to find the best variants not only for providing their citizens with the possibility to get higher education, but also for controlling the work of the university and the learning outcomes of students. The logic of the current reforms in the Russian Federation is in tune with the changes taking place during the last 15 years in public education in the most advanced countries (OECD), where you can observe two main courses of reforms:

- ✓ institutional reforms aimed at improving the autonomy of educational institutions, its' financial freedom and greater independence;
- 2) changes in the mechanism of state (budget) funding: binding to the results of institutions' activity, the development of group regulations, the expansion of potential income sources, changes in approaches of tuition fee by the students, etc.

In such a way, exploring the financing mechanisms of higher education institutions in Russia and abroad, we can conclude that at the present moment in our country there is a transfer to a system of university financing, which is quite successfully practiced in developed countries – the principle of the autonomy of the university, providing an opportunity to raise funds and the principle of normative per capita funding, also providing budgetary provisions in accordance with the number of students and with calculated labor costs per student. However, the fundamental difference between public funding of Russian and foreign universities is that in Russian funds are allocated only according to the estimated figures of reception, which is only a part of the student body.

This difference has an advantage: to prevent the large number of students who are attracted by the institution in order to get more funding and to encourage universities to attract students willing to study on a paid basis, in competition with other higher education institutions. The goal of the new financing mechanisms isn't the providing educational institutions with sufficient financial resources, but the empowerment of the university, encouraging them to self-sufficiency. Simultaneously there is a change of funding mechanisms of consumers of educational services which is expressed in the form of state guarantees education loans.

Thus, considering the trends in foreign countries and analyzing its differences with Russian ones, it can be said that the transition to per capita funding as the best financing method of HVE. However, in this context the question on the correctness of regulatory standard calculation arises because the university activity depends on this basic regulatory standard.

As it was mentioned, in 2010 the process of development of the system of individual regulatory costs on provision of public education services begun, and the first standards were calculated for each public institution, without regard to the level and structure of costs of the other institutions. Definitely, these individual standards fully covered the costs of providing educational services (to the extent to which this regulation provided). From 2013 a gradual transition to the uniform normative costs began, due to that fact it's necessary to consider what they include and how to take into account all the peculiarities of each budget institution, without damaging its financial support.

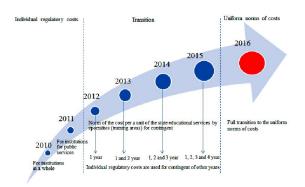
The basic norm of the cost per a unit of the state educational services HVE includes: costs directly related to the provision of public services (the fund of wages and salaries, purchase of inventory) and general duties costs (labour compensation fund, expenditures on utility services, costs on maintenance of valuable movable and immovable property, and costs of transport services), as well as expenses for other general purposes. A large part of the standard (57.5 per cent in 2012/2013) falls naturally on the first group of costs (Table 3 provides a Basic norm of the cost per a unit of the state educational services HVE for 1 rate 2012/2013).

Table 3. The basic norm of the cost per a unit of the state educational services HVE for 1 rate 2012/2013 [9]

Directions of the cost	The calculation of	
	standard cost	
	thousands of rubles	%
costs directly connected with the providing of educational services	34,61	57,5
– labour compensation fund, directly involved in the provision of public services	34,55	57,4
– the acquisition of material inventory	0,06	0,1
Cost on General duties:	21,36	35,5
– labour compensation fund	17	28,2
- the utilities cost, including communication services	2,7	4,5
<ul> <li>costs on maintenance of valuable movable and immovable property</li> </ul>	1,14	1,9
– costs of transport services	0,52	0,9
Cost on other General duties:	4,23	7
In total	60,2	100

The final adoption of the universities within jurisdiction of the Ministry of Education and Science of the Russian Federation, on uniform norms of costs is planned for 2016, when students admitted to the first course in the academic year 2012 complete the study. For universities, subordinate to other federal authorities, the transitional period will end in 2017/18 academic year, provided that the transition to a single regulatory costs began in 2013.

For Institution of Higher education, under the jurisdiction of other federal authorities, the transition period will end in 2017/18 academic year if the transition to the uniform regulatory costs started in 2013.



Picture 3. Stages of transition to normative financing of educational services in HVE (2010-2016) [9]

At the same time, the course of the initial basic standard coasts had several methodological problems.

Firstly, the majority of institutions of higher education have kindergartens, sanatoriums, health clinics, etc. On the one hand, the cost of maintenance of such institutions should not be included in the standard cost for the service of the HVE. On the other hand, these types of costs are not provided with a separate service in the departmental list of state services of the Ministry of Education, so that at the first stage, these costs were "dissolved" in the composition of other services, including the cost of rendering of HVE. The question about the separation of the costs on the specialized services provision and the maintenance of such facilities remains unresolved.

Secondly, the question concerning the inclusion of the cost on granting and on material provision in the basic standard cost of HVE services. Such costs are calculated annually according to the data on the population with scholarships payments, and to the number of students-orphans. From 2011, these costs are not already considered as a part of subsidies for a state task execution.

There are two main points in the calculation of the basic standard cost: the first is a strong differentiation of universities: the existence of institutions located in remote regions, operating in difficult climatic conditions or in not numerous regions. And the second point – the complexity and resource-intensiveness of training in a special field.

As a result, the system of corrective coefficients has been developed in order to decide the above mentioned problems.

Thus, the costs for each direction (specialty) are calculated by indexing the basic standard for the appropriate corrective coefficients, which can be divided into three groups [10]: (1) coefficients reflecting the deviation of the cost of the implementation of educational programs (the ratio of teachers to the number of students, the need for laboratories and specialized training equipment, etc.); (2) coefficients reflecting the peculiarities of institutions; (3) coefficients on the mode of study.

In connection with the above matter, we can say that the adjustment methodology is developed in order to consider not only the specifics of individual specialties, but also of the institutions themselves.

However, we cannot ignore the fact that according to the order of the Ministry of Education and Science of the Russian Federation of 20.12.2010 No 1898 the tuition fees must be equal to the standard of financial provision of the same services performed within the context of a governmental task.

This means that the establishment of basic normative costs at a relatively high level and the use of corrective coefficients may increase the tuition fee for professions that require time-consuming process of learning, the usage of laboratories and other advanced technologies. At the same time, it is obvious that the most time-consuming (and therefore with higher standards of costs) are an engineering and technical professions, the development of which is necessary for the Russian economy modernization [11]. Thus, in accordance with the order the tuition fee will also be higher than the tuition fee of the universities, training students in less-intensive specialties. This fact may reduce the attractiveness of professions with highest priority for the economy, in this connection it will be harder for the universities to attract potential students willing to study on a fee basis, and this fact will directly affect the total number of students and the amount of extra income.

Thus, summing up the results of the reform, we can say that the key point is that the subsidy on implementation of the state order is not intended to fully form the financial support of the University; it is only one source of income along with subsidies for other purposes, and along with income from paid services and with other income-generating activities [12]. The University has some kind of co-finances of the public services provision, having the state property in operative management.

In general, in the Russian Federation for educational institutions of HVE the transition on the financial support for government task execution on the basis of basic standard costs for specialties (training schools) means the introduction of an entirely new financial coordinate system. Within this system, there have been changes both in relations with the founder (Ministry of Education and Science of the Russian Federation) and in the management of the finances of the institutions themselves. Incorrect assessment by the institution of real investment in training of students can also lead to losses of income.

The reform forces universities to raise efficiency of use of a property complex and increase the supply of educational services. In this regard, there are two directions of qualitative development of the functioning of institutions of HVE:

1) to promote the role of financial management and its key directions: management accounting, financial risk management, financial analysis, linking of strategic plans with the sources of income and others for effective use of all assets available to the institutions and for the competent distribution of future income and expenditures, the development of financial plans of institutions.

2) improving the quality of provided educational services on order to attract more students, willing to learn on a paid basis (because it is one of the key sources of income along with budget funds).

## **Corresponding Author:**

Dr. Pirogova Olga Alexandrovna
Financial University under the Government of the Russian Federation
Leningradsky avenue, 49, Moscow, 125993, Russia
E-mail: pirogova.olg@yandex.ru
Tel: +79164651986, +79162107595

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