

On Standards of Budget Funding and Adjusting the Fees in State Universities¹

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Abstract

The paper analyzes the implications of the financial regulations implementing a state order (standards of budget financing based on one student) in the higher education system and the use of them to regulate fees in the universities. It is demonstrated that the establishment of standards in the field of budgetary financing (field of study) does not allow to pay attention to differences in historical property complexes, schools, differences in socio-economic position of the Russian Federation where universities are located affecting the wages of faculty in relation to the average for the economy of the region, raises the question of the adequacy of the state accreditation of higher education institutions. Purely economic approach in the allocation of budget funds obscures difficult political decisions on restructuring the higher education network: the elimination of schools that do not meet the requirements for licensing and accreditation of universities, uniting weak with strong ones, opening of new schools on the basis of material liquidation, the implementation of programs to support the weak, but necessary institutions, replacing weak management in universities, etc. Accordingly, the regulation of fees would have a negative economic and social consequences.

JEL CODES: I21, I22, I23, I24, I25, I28

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Introduction

Federal Law No.83 “On amendments to particular legislative acts of the RF aimed at improving the legal position of state (municipal) institutions” (henceforth 83-FZ) introduced significant changes to the financial-economic mechanisms of the activity of budgetary and independent institutions, including institutions of higher education (colleges – “VUZ”). This article will examine issues related to the determination of the unit of resource for educational services delivered by higher educational institutions per student supported by the budget (norms of financial support²) and also with the setting of fees for paid education in relation to the units of resource.

The adoption of 83-FZ on 9 May 2010 marked the transition from the funding of budgetary educational institutions to the funding of services delivered by these institutions. Article 3 paragraph 8, point c of this law states, in particular that “...financial support for the implementation of state policy by state budgetary institutions and by independent educational institutions is provided on the basis of federal financial units of resource for educational services.” This made it necessary to determine the quantity of educational services that would be procured in return for budget support, or the state’s requirement of educational institutions in return for this funding (in other words, to determine the number of state funded students in colleges) and also to determine a normative sum (unit of resource) payable per student. Since 2010 all Federal executive bodies with the authority to establish colleges have been working out a methodology for calculating units of resource for the financial support of state educational services – with a view to implementing programmes of higher professional education.

At the same time, in so far as 83-FZ, article 6, part 5, point 4 reserves the right of a budget-funded institution “over and above the state (or municipal) plan (*zadanie*) and in circumstances defined by Federal laws, within the limits of the state (municipal) plan, to carry out work for and deliver services for payment to citizens and legal persons relating to the core activities defined in its founding document, in areas specified in point 1 of the present article, these services to be delivered in identical conditions.” The legislature, seeking to limit commercialization of the

² Hereinafter, the term “unit of resource” will be used to refer to “unit of resource for the delivery of an educational service per student”, “unit of resource for the deliver of an educational service (education of one state-supported student)” and “unit of resource of budget funding”.

activities of the budget-funded institution, in the same article imposed the condition that “the procedure for establishing the level of fees is determined by the body that has the functions and powers of founder of the institution, unless otherwise provided for by Federal law.”³

This clause was understood by the higher education community as an attempt to create an instrument of control over fees and as a warning that fees should not be increased, since increased fees could deny the deprived strata of the population access to higher education. However, as subsequent events demonstrated, this interpretation of the law was mistaken. The RF Ministry of Education and Science issued an order requiring all colleges to set fees for educational services at a level no lower than the level of the subsidy that the colleges received for the education of a state-supported student (that is no lower than the value of the unit of resource allocated to fund a state-supported student for the same service delivered as part of the college’s state plan).⁴

³ It should be noted that 83-FZ did introduce any requirements as to the level of fees to be charged to physical or legal persons in “autonomous” educational institutions.

⁴ Order of the Ministry of Education and Science No.1898 of 20.12.2010.

1. Units of resource in the budget funding of higher education

After the RF Ministry of Education and Science had in April 2012 conducted a competition for the allocation of budget funded students (*Kontrol'nye tsifry priema - KTsP*) between state and non-state colleges for the academic year 2012/2013, the requirement was imposed that fees for educational services must be set at a level no lower than the level of the subsidy that the colleges received from the state for the education of a state-supported student, that is no lower than the value of the “unit of resource”.⁵

The clause that we have mentioned that fixes the lowest level at which fees that can be set for educational services is contained in the State Programme “The Development of Education” and this shows that this principle is an integral part of state policy in the sphere of education, including higher education.

Given that the unit of resource for the delivery of services to a physical person within the framework of the state plan (the unit of resource of financial provision), over and above all of its other functions, has the effect of setting a base limit at which fees can be charged for paid education, let us examine in more detail the principles employed in calculating the units of resource.

Units of resource per state-supported college student were set in 2012 for the first time in 20 years.⁶ The units differed in value according to subject (course) and according to programme (level of higher education) – Bachelor’s Degree, Special Degree (*Spetsialitet*) and Masters Degree. Factors taken into account included the resource intensity of a course (requirements for laboratory equipment, complexity of that equipment), the labour intensity of a course (staff-student ratio) and the importance of the course for the country’s socio-economic development.⁷ Whether tuition was full-time (*ochno*), by correspondence (*zaочно*), or a combination of the

⁵ See Letters of the Ministry of Education and Science of 30 May 2012 No.IB-74/02 and 31 May 2012 No, IB-771/02.

⁶ See:

<http://минобрнауки.рф/%D0%B4%D0%BE%D0%BA%D1%83%D0%BC%D0%B5%D0%BD%D1%82%D1%8B/2173/%D1%84%D0%B0%D0%B9%D0%BB/501/12.03.29-%D0%98%D0%91-50.%D0%92%D0%9F%D0%9E.pdf>.

⁷ Later in this article we shall consider whether this approach to the setting of units of resource was appropriate in Russian circumstances and what the impact of this approach was on the setting of fees for paid education.

two (*ochno-zaochno*), was also taken into account.⁸ All attempts to introduce two categories of unit of resource: a unit for the cost of implementing educational activity and a unit for the cost of maintaining premises, which would to a significant degree have taken into account differences in the types of premises owned by colleges, were rejected by the RF Ministry of Finance on the grounds that having a single unit would encourage optimal use of premises: colleges would take steps to divest themselves of surplus premises if the unit of resource provided insufficient funding. The fact that it was not always feasible to remove individual premises from a building complex was not taken into account.

The setting of units of resource was, in fact, equivalent to the setting of the level of funding for educational services in higher education that the state would pay a college for the support of students in a range of subjects (courses). In other words, the state, ideologically, went over to the procurement of educational services from producers (the colleges) at a price fixed by the state itself. The transition to the allocation of control figures by means of a competition further underlined the change: a state programme was, in fact, being replaced by procurement, even if the Ministry of Education and Science pretends not to notice this transition.

In adopting a single unit of resource, the state is proceeding on the assumption that education is a homogeneous service that the state itself delivers to each consumer (student). This homogenous service is presumed to be of the same quality and consumed in identical conditions, that is, it is presumed to be a standard provision delivered in standard conditions. This logic seems to imply that the consumer of the service (the student) and the producers of educational services in higher education, which is to say, the colleges, are also standardized. In any case, this assumption seems to be implicit as far as the quality of education delivered in different colleges in any given subject (course) is concerned. In other words, the state is treating the system of higher education as a single college with identical component parts, to which the student contingent must be distributed in optimal fashion. On the basis of these assumptions, it is further assumed that the task can be implemented fairly easily – student numbers and the corresponding volume of resources will be distributed amongst the colleges in such a manner that they will be able to function with minimal expenditures, taking into account all of the specific features of any given college as regards subject and course. In reality, even those colleges that that teach a single

⁸ It should be noted that in the course of determining the value of the unit of resource, the weightings for expenditure on combined (*ochno-zaochno*) and correspondence (*zaochno*) forms of instruction in relation to full-time instruction were revised as follows: 0.4 instead of 0.2 and 0.2 instead of 0.1, respectively.

subject (or course) operate in a variety of conditions and admit a diversity of students as measured by abilities and knowledge (the scores in the Russian State Examination - EGE) serving as a very approximate measure of these).

Given the diversity that exists amongst colleges, the setting of a formal unit of resource according to subject (course) will have very serious consequences for the majority of Russian higher educational establishments. The problem is aggravated by the fact that colleges of the regions of the Russian Federation that are subordinate to the RF Ministry of Education and Science also vary widely in their level of socio-economic development.

The introduction of units of resource according to subject (course) will, primarily, have the effect that the better colleges will suffer, the weaker colleges will benefit and the position of the average colleges will hardly change. In real life, two colleges that teach one and the same subject (course) can have very different educational facilities. Importantly, they can have different fixed costs (historically acquired building premises, differing tariffs for communal services according to region). In the majority of cases these differences cannot be optimized by transferring students from one college to another or by drastically increasing the student intake in one college (where there might be a lack of teaching facilities or hostel accommodation). The redistribution of quasi-fixed costs (to institutions by redistributing of student numbers can further aggravate the predicament of a college, since it might turn out to be a good college teaching small numbers of students but teaching them well, whereas another, accepting a larger intake of students and utilizing its educational premises “intensively”, might be teaching to a lower, and in some cases significantly lower, standard (in this way any attempt at allocating resources in the state programme according to quality of tuition is transformed into “bidding” on the part of a college’s founding body or into a competition, the rules of which are scarcely comprehensible).

We should add that when the units of resource were set, many specialists, ourselves included, proposed funding quasi-fixed costs separately: in the form of a subsidy for the maintenance of premises. This measure alone would have done much to put the colleges on an equal footing.

There is also a point of view according to which the state should go over as soon as possible to a single unit of resource, or to one that would be differentiated subject (course) or by groups of colleges. However setting the unit of resource by averaging out the present individual

units of resource, would, as we have pointed out, advantage the weaker colleges and disadvantage the stronger.

Another issue is that introducing a purely economic method of assessment of colleges interfere with the complicated political task of restructuring the college network: this task involves closing down those that do not meet the licensing and accreditation requirements, amalgamating weaker colleges with stronger, using the resources freed up by closures to open new colleges, implementing programmes of support for weak but indispensable institutions, replacing the management of weak colleges, and so forth.⁹ Reliance on purely economic mechanisms will result only in a reduction in the funding of those colleges that are unpopular with applicants (usually the weaker establishments, as it happens) to the advantage of the more popular (which are often, but not always the superior colleges).

Those weaker colleges that have had their funding reduced will still have to complete the education of the students they have admitted and maintain state property. Funds will still have to be allocated to the weaker colleges that are scheduled for restructuring and renewal of management. There will be a continuing need to complete the education of the weaker students (and the college bears the principal responsibility for this – however unmotivated or unsuited to the completion of their education these students might be), and there will be occasions when this will require more resources than for the education of the more able students. Arguably, the gradual elimination of the weaker colleges by means of a reduction in their funding will not be an effective method of restructuring the network of higher educational institutions since this method violates the principles of rational utilization of state property. Furthermore, the transformation of a college that has had its funding reduced into an object of property rented out by the college (or, personally, by its management) will hinder the restructuring process.

Moreover, the preferences of applicants will not necessarily coincide with the priorities of state educational policy and with forecasts of the structure of the labour market. This will mean that some colleges will have to be kept open, irrespective of low demand for their services.

There are a number of fairly important reasons why the use of unified units of resource by subject (course) are inefficient:

⁹ Following publication by the Ministry of Education and Science of a list of “inefficient” colleges, the value of this approach was sharply contested and all of the associated problems were brought to the fore in the course of a public debate. See, for example: <http://www.echo.msk.ru/blog/kandelaki/955910-echo/>.

1. The variable costs of colleges in such a large country as Russia cannot readily be composited. The problem is not one of devising coefficients for wages in the Far North or the Far East but derives from the fundamentally different living conditions of populations, even of those that inhabit neighbouring regions.

The actual unit of resource of budget funding by subject (course) for the Bachelor's Degree Specialist Degree (*Spetsialitet*), without taking into account priority or labour intensive subjects and courses, amounted in 2012 to between 60,000 and 66,000 roubles per year. For the 2010/2011 academic year¹⁰, according to research data on the colleges under the Ministry of Education and Science, the unit of resource averaged 18,100 roubles throughout the Russian Federation: in St. Petersburg it was 21,300 roubles; in Moscow 23,600; in the Tver and Smolensk Oblasts, 11,800; in the Republic of Kalmykia. 9,500; in Karachaevo-Cherkesiya, 8,900; and in the Leningrad Oblast, 12,300 roubles. In 2011 the monthly wages levels in Russia and the designated regions were as follows: Russian Federation – 22,700 roubles (the wages of the Professorial and Teaching Staff – “PPS” of colleges were 80% of average wages for the country); St. Petersburg, 31,700 roubles (67.2% of the average wage for the region); Moscow, 40,800 roubles (58.1%); Tver Oblast, 17,900 roubles (66%); Smolensk Oblast, 15,900 roubles (74.9%); Republic of Kalmykia, 11,600 roubles (81.8%); Karachaevo-Cherkesiya, 11,200 roubles (79.5%); and Leningrad Oblast, 24,700 roubles (41.7%).¹¹

As we can see from this data, the colleges of the Leningrad Oblast and of Moscow, where the wages of Professorial and Teaching Staff (PPS) were 41.7% and 58.1% respectively of the average wage for the region, were in the worst situation.¹² In the Tver and Smolensk oblasts the wages of teachers in the colleges were identical, but in the Tver Oblast they were two-thirds of the regional average and in Smolensk Oblast close to three-quarters. This means that the consequences of applying identical units of resource by subject (course) will be entirely different for the colleges located in these two regions. In Kalmykia and Karachaevo-Cherkesiya the wages

¹⁰ We have deliberately selected date for the 2010/1011 academic year since these data were to be taken into account in calculating the norms of expenditure according to subject (course).

¹¹ In parenthesis we give the ratio of the average wage in higher education to the average wage in the economy of the same region. Data from Labour and Employment in Russia/ *Trud i zanyastost' v Rossii* (Rosstat, 2011).

¹² It should be borne in mind that in Moscow a college lecturer can work in two or even three educational institutions and this, naturally, has an effect on the quality of his or her work. There are fewer such opportunities in the Leningrad Oblast, though there are opportunities for supplementing earnings in the colleges of St.Petersburg.

of the college Professorial and Teaching Staff are bound sharply to increase, but in Moscow and St.Petersburg the economic predicament of the fairly strong colleges subordinate to the Ministry of Education and Science will deteriorate as a consequence of the reduction in their budget funding (the effect has not yet been very significant since so far the reduction is affecting only first year students), and in order to offset this effect they have begun to increase their fees for paid education, since competition for places in these colleges has remained high. The financial position of the less prestigious colleges (we have not considered here colleges with special status or colleges that are subordinate not to the Ministry of Education and Science but to other Federal executive bodies) has hardly been affected since the funds allocated to them in the past per state-funded student has been close to the value of the units of resource.¹³

2. It is perfectly evident that the unit of resource per student can only be considered normative in a very limited sense. If a single student were to be admitted to a college to study a single subject (or course) the unit of resource would have to be fairly high in order to enable the college to provide teaching for this student. In other words, the existing per capita units of resource make it impossible for a course to cater for one student. However, when it is said that the unit of resource must be at a level to support the tuition of an academic group of 25 students throughout the year, then in most cases even this will be impossible. For example, the unit of resource of 60,000 roubles (fixed by the Ministry of Education and Science for the 2012/2103 academic year) for subjects not requiring laboratory equipment, when applied to groups of 25 state-funded students would require the allocation of 1.5 billion roubles of budgetary resources per annum or 125,000 roubles per month. Even if the entire sum was spent on the wages of Professorial and Teaching Staff (PPS) alone, then, taking into account additions to wages, the monthly wages fund alone would amount to 96,150 roubles. Even if we apply the average monthly wage for the Russian Federation at the present time of 25,400 roubles (leaving to one side the miserably low level of budget sector wages for the moment) it is clear that for this sum a college could employ no more than 4 teachers. This will hardly provide an effective (and up to date) programme of student education. Our calculation, moreover, did not include the need to pay administrative and managerial personnel and auxiliary teaching personnel, to maintain buildings and equipment, assumed no laboratory equipment is required or even a minimal

¹³ A recent survey of the wages of Professorial and Teaching Staff (PPS) of Russian colleges in October 2012 illustrates very well the impossibility of setting units of resource according to subject (course). The average wage of a lecturer in the Altai Medical University in October 2012 was 25,600 roubles monthly or 156.2% of the average wage for the region, whilst in the Russian National Research Medical University it was 24,100 roubles or 51.5% of the average for Moscow. An almost identical range of subjects is taught in both establishments. See: <http://минобрнауки.пф/%D0%BD%D0%BE%D0%B2%D0%BE%D1%81%D1%82%D0%B8/2849>).

provision of computers, library resources, or furniture. It is, of course, possible to estimate what number of students can receive a normal education up to state educational standards, by applying the per capita unit of resource, but no one has even considered making an estimate of this kind.

3. The value of the units of resource applied to Moscow State University and the St. Petersburg State University, of federal and national research universities and of colleges that have received by Presidential Decree the right to establish their own educational standards at a level higher than the Federal State Standard (*Federal'ny Gosudarstvenny Obrazovatel'ny Standard* - FGOS), has significantly exceeded the value of units of resource applied in the budget funded student allocations (KPTs) for the 2012/2013 academic year to institutions subordinate to the Ministry of Education and Science and non-state colleges. It seems safe to assume that an ambition to bring at least 5 All-Russian universities into the top 100 higher educational establishments as judged by international ratings will increase the gap between the funding of these institutions and all others. Nor can we exclude a scenario whereby the number of fee-paying students in the best All-Russian universities sharply declines, if increases in fees makes education in these institutions completely inaccessible to students from the middle class (bearing in mind the fact that the Ministry of Education and Science has set a base limit on the fees chargeable for paid education) and, *a fortiori*, to children from less-well off families, and if well-off families decide that their children should receive higher education abroad.

4. The application of the same unit of resource to colleges of different quality (even if assessed by the results of entrants in the Russian State Examination - EGE) raises the question of the value of state accreditation of colleges. All of our state (and many non-state) colleges have acquired state accreditation and it is therefore assumed that they meet the Federal State Educational Standard (FGOS), that is, that they provide high-quality education. This being the case, the purpose of organizing a competition for the allocation of budget-funded student numbers to state and non-state colleges is unclear – formally, the colleges are all of the same standard. This must mean that the competition is decided by non-formal criteria.

Equally questionable is the attempt of the Ministry of Education and Science, on the basis of 50 indicators, to identify those colleges where there are risks of inefficiency given that all of the colleges that have been inspected are state institutions and possess state accreditation. The results of the inspection, it would appear, have surprised the Ministry of Education and Science,

which commissioned the inspection and which is now making strenuous efforts to limit public reaction.¹⁴

We conclude from the above, that procedures for the licensing and accreditation of colleges must become more strict and that all colleges must be treated equally when it comes to the provision of premises for teaching, administration and sport, of equipment, laboratory apparatus, libraries and hostels. In the absence of such measures, the introduction of a single unit of resource per subject (course) will be quite ineffective.¹⁵ Using these units as guidelines for the determination of fees for education will not only be ineffective, it will threaten standards of higher education and the financial stability of the colleges.

2. Base limit of fee for paid education and access to education

Let us now consider the use of the unit of resource per student in relation to the base limit for the fee for paid education, taking into account the fact that the unit of resource, as we have seen, is problematical.

The requirement that the fee for paid education per student should be set no lower than the value of the unit of resource of budget funding, is presumably intended to act as an embargo on cross-subsidization: the fee-paying student should not be able to obtain education at a cost to the budget (however small the subsidy).¹⁶ We shall not discuss here the reverse scenario, when fees were charged to fee-paying students at a level that significantly exceeded the resources allocated by the state per state-funded student, at a time when there was an acute shortage of budgetary resources for higher education. At present this situation is less common, but, even so, the cost of fee-paying education in a whole range of subjects in many colleges exceeds, and often significantly exceeds, the value of the unit of resource. Moreover, as we have pointed out, the value of the units of resource that have been set have led to an increase in the cost of education for fee-paying students in a number of the better colleges, who have been attempting in this way to compensate for the reduction in the public funding they have been allocated.

¹⁴ See, for example, the declaration of 8 November 2012 of the Minister for Education and Science, D.V. Livanov, to the parliamentary hearings on the draft law "On Education in the Russian Federation".

¹⁵ For a more detailed examination of the new mechanism for the funding of colleges, see T.L. Klyachko and S.G. Sinelnikov-Murylev, "On the reform of system for funding higher education colleges", *Voprosy ekonomiki* (2012, No.7).

¹⁶ More precisely, at the cost of resources allocated for the education of state-funded students.

During the 1990s and until the early 2000s cross-subsidization (of state-funded students by fee-paying students) helped the colleges to survive and the state to preserve a fairly effective system of higher professional education. But it does not follow from this that in present circumstances a reverse process of cross-subsidization (this time at the expense of the state) should allow colleges to support a fee-paying contingent at a time when overall student numbers are declining for demographic reasons.

The real issue, however, concerns how far this measure is effective and serves the purpose of constructing a rational system of funding higher education. We also need to know whether the requirement that fees should be set at the level of the unit of resource applies also to colleges that do not belong to the state sector but have participated in the competition for allocation of students (KTsP) and have received budget funding and an allocation of state-supported students. And does it also apply to the autonomous colleges that the legislator “forgot about”, when laying down a requirement that there should be a procedure for determining the cost of paid education?

In the economic theory of the public sector, it is argued that it is the function of the state to deliver purely social goods. But the state delivers far more than purely social goods.¹⁷ Amongst the most important reasons for state provision of goods that are not purely social (including education) we could mention the need to distribute goods justly, the absence of perfect market competition (in particular the existence of high transaction costs in a given market when compared with provision of a particular good by the state), the absence of a number of the most important markets (in particular, of markets for the insurance of many important risks, futures markets in certain goods and services), the cyclical character of the development of the market economy and underutilization of resources during an economic cycle and also the existence of externalities in the production and consumption of many goods and services. In this list, “merit goods” are a special case: these are goods that satisfy needs deemed to be “worthwhile or socially significant” from the standpoint of society (in terms of the shared values of a society). It is considered that the existence of “merit goods” justifies interference by the state in the realm of consumer sovereignty and limitation of opportunities for free consumer choice.¹⁸

Education is frequently provided by the state free of charge. In many European countries, for example in France and Germany, higher education is free to the consumer (or

17 See G.D. Myles, *Public Economics* (Cambridge University Press, 1995), p. 290.

18 See R.A. Musgrave, *The Theory of Public Finance* (New-York: McGraw-Hill, 1959), p. 13-15.

almost free – the student pays a small administrative charge);¹⁹ in any case, in the majority of countries higher education is subsidized by the state. This is the case notwithstanding the fact that education, as we have already stated, cannot be classified as a purely social good. The marginal costs of provision of educational services do not equal zero (often the marginal costs of education are close to the average), which is to say that fees for the costs of educational services could be levied at the level of marginal costs. Education is a private good that is, to a greater or lesser degree, provided by the state.

In economic theory the provision of education by the state is explained in terms of the need for “redistribution”, with reference to the role of externalities in the obtaining by particular individuals of education, and by classification of education as a socially-useful good. Let us examine the first two assumptions in detail.

Education can be looked upon as an investment in social capital.²⁰ From this point of view, every individual strives to maximise the income they receive in the course of their lifetime. On the one hand, the acquisition of education, requires expenditure (if this good is acquired privately) and, on the other, entails the foregoing of income during the period of education. At the same time, a high level of education facilitates the acquisition of a high income during years of employment (this follows from the theory of development of human capital and from the theory according to which the function of education is to provide a signal²¹ that enables an employer to distinguish an efficient worker from an inefficient worker). Comparing expenditure on education (fees for instruction and income foregone) with the return from education (growth of income from employment), each individual can select an optimal level of education (this approach ignores the fact that education may be considered by the individual to be valuable in itself). If there were perfect capital markets and markets that obviated the risk of under-achievement of the planned level of income, then individuals who did not have the means to pay for their education could borrow the necessary funds and acquire the optimal level of education (the level that they desired).

19 In France, the élite “Grandes Écoles” are an exception.

20 See G. Becker, *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education* (The University of Chicago Press, 1994).

21 M. Spence, ‘Job Market Signaling’, *The Quarterly Journal of Economics*, Vol. 87. No 3. 1973. pp. 355–374.

In real life these markets are not perfect as the experience of developed countries has shown. In particular, educational loans are not universally available and there are significant risks that they will not be repaid. As a consequence, individuals from poor families under a private system of funding of education cannot acquire the education that they wish. This means, in the first instance, that in post-industrial society a restriction of access of the poorer strata of the population to high-quality education will hold back improvements in the development of human capital that is necessary for stable economic development. Secondly, given the relationship between level of education and income level, we may assume that citizens who do not acquire a sufficient level of education will remain poor (will be caught in a kind of “poverty trap”²²) and that the differentiation of incomes in society will become more acute. Differentiation of incomes will lead, in turn, to a polarization of political forces and this will make it more difficult to adopt complex and necessary economic policy decisions. There will be a risk of recourse to populist expedients, and the adoption of “soft” budgetary and monetary policies will impede stable economic development.

One way ensuring that the access of the poor to education is not restricted, can be for the state to provide free or subsidized education (this, historically, has been the policy adopted by many states), to encourage the formation of a market in educational loans, including state loans, and for the state to guarantee these loans and subsidize the interest rates.

Setting the cost of education at a level lower than the marginal cost of providing these services can lead to a different kind of problem - that of an over-consumption of educational services. To avoid this, a system of rationing of educational services is often resorted to, whereby the state provides a general level of education at no cost and makes further education and training available for a fee. Even so, majority opinion holds that it is important to ensure equal provision (ensure social justice) even if this means risking over-consumption (one of the means of pre-empting possible over-consumption of educational services in Russia is the impossibility of obtaining more than one higher educational qualification at state expense).²³ This is particularly evident in school education, which in almost all developed countries is provided free. Arguably, the funding of higher education poses is less problematical, from the standpoint

22 J.D. Sachs, *The End of Poverty: Economic Possibilities for Our Time* (New-York: Penguin Books, 2005).

23 It cannot be asserted *a priori* that a second higher education constitutes over-consumption, since further higher education can assume a variety of forms. In present circumstances, however, the state cannot risk acknowledging this. It has therefore decided not to differentiate, and takes its responsibility to be the funding of those students who have been selected by competition, since this is required by the Constitution of the Russian Federation, and refusing, in conditions where there is a budget deficit even in the funding of a first higher education, to fund a second.

of social equality, than the funding of secondary education. Even so, the high level of risk that the cost of the investment of the poorer strata in higher education will not be covered by increased income later in life, is one important reason why a market in educational loans cannot replace state funding (however it is provided).

Up to this point our discussion of the role of the state in providing educational services has not taken into account the fact that education produces many positive external effects.²⁴

The benefits of education accrue not only to the individual but to the whole of society. These benefits include higher economic growth rates and the fact that more educated citizens promote the development of science, culture and the arts, reduce criminality, are more healthy and live longer. Theoretical literature on private demand for education, in so far as it dwells on the return to the individual of acquiring education, tends not to take into account these externalities. In our view, the purely private provision of educational services will not achieve a level of education that is optimal for society (and, what is more important, to the optimal consumption of education or to the production of other social goods, or services that are important from a social point of view).²⁵

One important example of the need to take into account externalities is the provision of education to immigrants from poorer countries and their children. It is evident that society, even more than the immigrants themselves, has an interest in ensuring that they acquire education and seek education for their children. In Russia, it is only since the beginning of the 2000s that immigrants have been able to attend general educational schools.²⁶

As is well known, the problems of externalities can be dealt with in government policy by the introduction of special taxes, fines and subsidies, by the introduction of the necessary property rights, by the development of the appropriate markets and by the introduction of special

24 V.A. Weisbrod, *External Benefits of Public Education: An Economic Analysis* (NJ, Industrial Relations Section, Dept. of Economics, Princeton University, 1964).

25 J. Cullis and P. Jones, *Public Finance and Public Choice* (Oxford University Press, 1998). P. 31–37.

26 Legally, all children of school age who inhabit the territory of the Russian Federation have an equal right to school education. This is guaranteed by the Constitution of the Russian Federation, by the law “On Education”, by the “Convention on the Rights of the Child” of the United Nations and by various acts of legislation of regional authorities relating to access to educational institutions in their regions. In Moscow, for example, there is a decision of the Collegium of the Department for Education of the City of Moscow No.19/1 of 22.12.2005 “On the integration of children of foreign immigrants into the educational system of the City of Moscow”.

laws that place particular obligations upon economic agents.²⁷ In the case of education, state policy for the internalization of externalities and for realizing the social utility of education consists in make a minimal level of education obligatory (in Russia – middle eleven-year education), in providing free or subsidized education at college level for those who have obtained the required examination results, and in the subsidization of fees for fee-paying education.

The need to subsidize the cost of citizens' education has never been controversial in countries with a developed market economy. Debate during the last decades has revolved around whether education should be provided only in state institutions or whether private educational institutions should be admitted as providers (this debate has been concerned mainly with secondary schools); whether the state should purchase educational services directly or introduce a voucher system or provide tax benefits; whether limits should be set on the expansion of private education; whether a base level or a cap should be imposed on the expenditure of local authorities on secondary schools; what should be the extent of subsidy to higher education and whether public funds should be spent only on those who are suited to higher education, thereby increasing the efficiency of education (the utilitarian approach) or spread equally amongst all applicants at the expense of efficiency (although the more able will in any case acquire a greater benefit from education); and whether more resources be directed to compensatory education (The Rawlsian approach), so as to equalize citizens' chances of augmenting their incomes.

The conclusion arising from theoretical analysis, therefore, is that the price of higher education services can and should be subsidised, that is, the price can and should be lower than the marginal costs of provision of these services to the point, even, where they are delivered free of charge. Compensatory education, which concentrates on teaching the less able citizens or citizens who have grown up in circumstances where opportunities for education and the development of their abilities were limited, should figure prominently in the educational system.

Considering, from this perspective, measures that have been proposed for the regulation of the fees for higher education in Russia, it becomes clear that free higher education for those who have obtained high marks in the Russian State Examination (EGE) does not resolve all problems. High marks in the EGE are obtained mainly by students from the better-off strata of the population, and low marks by the less well-off students since the latter enjoy the least favourable

27 J. Cullis and P.Jones, *Public Finance and Public Choice*, P. 36–43.

conditions for study and development of their potential. However, students with lower marks are also entitled to a high quality of education not only because they have the necessary motivation but because society also has a vested interest in this. For this category also, therefore, higher education should be at least partially subsidized.

By contrast, the system of funding proposed by the Ministry of Education and Science will reinforce the separation of citizens into two categories: those whose marks in the EGE will entitle them to free, state funded education (albeit, not always in the colleges of their choice); and those who will have to pay for their education. This division existed before the introduction of the EGE, but the ban on colleges subsidizing fee-paying students out of budget funding will exacerbate this division. It is a particular feature of higher education in Russia that Russian citizens can be admitted to study in Federal, state funded colleges either free of charge (with state support) or on a fee-paying basis. In the developed countries there is a fairly clear rule: either every student pays fees, or education for citizens is free of charge (apart from a small administrative charge). Where fees are charged, there can be exceptions, for example the award of state bursaries to students from less well-off families, especially those of exceptional ability, that will fully cover the cost of education. Another measure is the provision of loans, where the cost of the loan is written off (is redeemed out of state funds) if the student, after graduation, agrees to accept forms of employment that may not be especially prestigious but where there is a public need, or agrees to work in remote areas. Students who decline such opportunities are obliged to repay their loans.²⁸

In the State Universities of the United States²⁹, almost all young people who were born in the state or who have lived there for a sufficient period of time and who have possess the appropriate entrance qualifications can obtain education free of charge or for a low fee. American citizens from other states are admitted on a fee-paying basis. This policy is close to that of the West European countries, where citizens of a country are entitled to state-funding (or can apply for a grant in the case of need) but foreign students pay fees.³⁰ For a long time the countries of Northern Europe were an exception to this rule and provided free higher education not only to their own citizens but also to foreigners. In the academic year 2012-2013, Sweden

28 Partial subsidization can also be provided through the taxation system. In Russia benefits of this kind take the form of a discount, but given a level of income tax of 13%, which is in any cases subsidized, the discount is very small and would remain small even if was applied to the entire sum spent on education.

29 A “State University” is a university that is funded out of a State’s budget.

30 This is the rationale behind the policy of attracting foreign students into European universities.

abandoned this policy in response to a rapid increase in the number of applications by foreigners to study in its universities.

3. Personal grants out of public funds

At the beginning of the 2000s attempts were made in Russia to devise measures for overcoming, or at least mitigating, circumstances in which some Russian citizens were obtaining free (state supported) education and others were paying full fees, even when there was little difference in the qualifications of the two categories of students at the point of entering college. We are referring to the attempt to introduce personal state grants (*Gosudarstvennoe imennoe finansovoe ob'yazatel'stvo* - GIFO), where students, depending upon the results of their EGE examinations, became entitled to a greater or lesser degree of financial support for their college education.³¹

Figure 1: The GIFO Model – Removal of the strict demarcation between Russian citizens obtaining state support and those paying for the education in the VUZ

In the first variant of the GIFO, everyone had to pay a supplement, since the college was allowed to fix the cost of education at a level higher than the GIFO of the first category (which took into account the student's financial means. (See Figure 2)

Figure 2: First GIFO Model

However, given that according to the Russian Constitution higher education must be provided free of charge on a competitive basis, and that, according to the law "On Education", no fewer than 170 students per 10,000 of the population were to be educated in state and municipal colleges at public expense, this particular variant was not implemented. Rather, an amendment was introduced to the model, whereby in state (and municipal) colleges no fewer than 50% of the best students who, in terms of their qualifications, were admitted to the first year of college education were to be fully funded (through the GIFO system). In this way the distinction between state-supported and fee-paying students was somewhat attenuated, but not

31 T.L. Klyachko, 'Personal grants out of public funds (GIFO)', *Universitetskoe upravlenie* (2002), No.4 (23), pp.70-73; T.L. Klyachko, 'Modernization of education in Russia: problems and solutions', *Otechestvennye zapiski* (2002), No.2, pp.48-56.

completely abolished. In 2005 the GIFO experiment was discontinued, because, amongst other reasons, in 2003 an initial attempt was made to abolish cross-subsidization and in many colleges, including those where the experiment was being carried out, the level of fees for paid education significantly increased. In public opinion this increase was viewed as a consequence of the introduction of the GIFO and so this mechanism, which had not having obtained particularly vocal support from the colleges, also lost the support of fee-paying students (and of their families).

In present circumstances, the GIFO model could be conceived as a state sponsored (state approved) system of discounts on the cost (fees) of education, equivalent to the value of the unit of resource of budget funding, for those colleges students who did not succeed in obtaining state-supported place but who had nevertheless obtained quite good scores in the EGE (See Figure 3).

Figure 3: Possible GIFO Model under the current system of funding of higher education

Under this variant, for every student occupying a fee-paying place, the amount of the discount would depend on the scores obtained in the EGE. This model would help to attenuate the problem of access to high-quality higher education of those citizens who, because they are less well-off or inhabit remote regions, obtain EGE scores that are too low to entitle them to budget-funded places (free higher education). But, this model does not entirely solve the problem of access.³²

As we have already noted, the objective of setting the fees for education at a level no lower than the unit of resource per student is to prevent colleges from subsidising fee-paying students at the expense of the budget. Also, it is believed that setting a base limit for fees (in the manner of setting a minimum price for vodka) will deter inferior colleges, and colleges offering courses outside of the sphere of their core expertise, from offering low-quality educational services in such subjects as economics, law and management.

In our opinion, pursuing this first objective through a form of price regulation that increases inequality of access to education and, as a consequence, inequality of incomes, is a blatant error which derives from the application of purely technical thinking to substantive problems of educational policy. The second objective is certainly important, but the means adopted for achieving it are completely inadequate. The objective of reducing the number of sub-standard educational services can be achieved by improving the transparency of the educational market

³² Approaches to determining the value of budget subsidy are examined below.

and abolishing asymmetry of information: there should be a reliable system of ratings of colleges according to the quality of their educational services and even a rating of university courses, in particular of Master's degree courses; a reform of the licensing and accreditation procedures that apply to educational institutions and individual programmes, and more rigorous assessments;³³ a monitoring of the quality of educational services of colleges and the closing down of colleges where the quality of education is judged to be inadequate.³⁴

Using the unit of resource of budget funding as the base limit for the fee to be paid by fee-paying students for comparable educational services, quite apart from the errors mentioned above (incomprehension of the rationale of subsidizing fees for educational services and the ineffectiveness of base limits on fees as a means of discouraging the provision of low-quality services), also creates a serious inconsistency: setting the unit of resource for budget funding assumes a uniformity of educational services and a uniformity of students; but setting a base limit for fees assumes the existence of a substantial difference between fee-paying and state-funded students.

Those who favour use of the unit of resource of budget funding as the base limit for fees argue that the fact that a consumer (student) has to pay for the service indicates that he/she is inferior (in terms of qualifications and abilities) to the consumer who does not have to pay (has obtained high EGE scores and can study free of charge) and that therefore the fee paid by the former should be higher and in no circumstances lower than the unit of resource, which represents the fee that the state pays to the colleges for the education of the state-funded student (expenditures on the instruction of a fee-paying student – bringing that student up to the required level – are assumed to be higher than in the case of the “standard” state-funded student). However, this does not take into account the fact that there can be students who could study free of charge in an inferior college, who, instead, decide to pay for their education in an excellent college. We should also remember that expenditures on the instruction of an additional fee-paying student (and, therefore, the fee for this service) can be higher or lower (which is most often the case) than the level of the unit of resource. Finally, we need to take into account the fact that the state-supported student (the “best quality student”) does not pay for his/her education, whereas the fee-paying student is paying the price that has been formed in a particular market.

33 We have discussed above the need for the system for licensing and accrediting colleges to become more rigorous, since otherwise the introduction of units of resource, instead of improving the quality of education through competition and the weeding out by economic means of the weaker college, will have a destructive effect on the system of higher education as a whole.

34 This will affect in the first instance those colleges who have set fees at a “dumping” level.

This means that a formal “equality through accreditation”, an allocation of budget funding supported by a competition procedure, and the use of a single-value unit of resource, has unfortunate consequences, firstly in the form of a non-optimal allocation of budget funding amongst colleges and, as a consequence of this, a non-optimal allocation amongst the colleges of state-funded and fee-paying students. Secondly, it has a damaging effect on perceptions of fairness within the system of higher education.

Bearing this in mind, let us examine more closely a possible amendment to the GIFO model (Figure 3). From the standpoint of the consumer of educational services, this model is comprehensible and *fair*: the most successful applicants (those who have obtained the highest EGE scores) receive state funding (study free of charge); those who have slightly under-performed receive significant discounts, and so on to the point where someone who has obtained a secondary-school leaving certificate (enabling admission to a colleges) but who has low scores pays the full fee or even a fee that exceeds the value of the unit of resource, but a fee that will enable the colleges to educate that student to the level it considers appropriate.

This system would be entirely acceptable to the colleges, since it would enable them to operate rationally and admit as many students with discounts as they consider necessary to cover the losses that will be incurred by an increase in fees and an associated reduction in the number of fee-paying students. In other words, there is a risk that in the event of an increase in fees to the level of the unit of resource, the number of fee-paying students in a college will be drastically reduced. If discounts are introduced, the number of fee-paying students will increase and the colleges can select as many fee-paying students as they need in order to be able to function normally while maintaining the quality of their teaching at a level necessary to maintain their reputation. We should point out that our calculations, based on Russian colleges with average numbers of students, suggest that the optimal variant (amongst various levels of discount) is the one where the fee for paid education is slightly lower than the unit of budget funding. This scenario is also of advantage to the state in so far as it facilitates the access of the population to high quality tertiary education and also increases the revenues of the colleges.³⁵

³⁵ There will be colleges where the level of fee will be equal to the value of the unit of resource (no discount). There will be colleges where it will be higher and where, in the final analysis, expenditures on the state-funded student in these colleges will exceed the value of the unit of resource. There will also be colleges where the fee will be set lower than the value of the unit of resource and in these cases expenditures on state-funded students will be reduced. It will therefore be of advantage to the state to award discounts to some fee-paying students and by this means, through the intermediary of the colleges, redistribute budget funds to the benefit of a proportion of its citizens, assisting them in this was to obtain high-quality education.

With regard to the introduction of price regulation in educational services, we should note that the “public” status of the overwhelming majority of colleges that are either budget-funded or “autonomous” can be justified by two sets of considerations – by the need to subsidize the cost of fee-paying education and by the acquisition of control over the quality of services, whether budget funded or directly purchased by the consumer. If, in the opinion of the Ministries of Education and Science and of Finance, fee-paying education should not be subsidized and if, moreover, fees must be set at the level of the unit of resource, which level in most cases, it would appear, will exceed marginal costs, then it is far from clear why state colleges are necessary at all. If educational services are to be provided for a price that is equal to, or exceeds, marginal costs, then from an economic point of view the privatization of the state colleges would be make complete sense and, thereafter, educational services could be procured from these colleges for students who have obtained high scores in the EGE.

4. Inadequacy of state funding of colleges

Let us examine more closely the possible consequences of setting a base limit on the level of fees for higher educational services by first considering a hypothetical situation in which the budget funding received by a college for the fulfilment of its state plan (*zadanie*) is sufficient for its normal functioning and for the teaching of state-funded students. In this case, if we applied purely economic considerations, it would make sense to fix the price of further education and training according to marginal costs. This policy, on standard assumptions, would enable the colleges to maximise their profits. The marginal cost of education in each college under this arrangement could be greater than or less than the unit of resource of budget funding. The marginal costs could be almost zero if the education of an additional fee-paying student did not require the formation of an additional teaching group, and could be very high if the teaching of that student required capital investment or the renting of teaching premises.

The number of college applicants who wish to and are qualified to study their subject of choice in a particular college is fairly limited. Many of them enter a state-funded college, others, who have obtained lower EGE scores, enter fee-paying colleges.

Of those who pay fees some wish to study in the college of their choice and these applicants (or their families) are able and willing to pay for their education. However, there are few such applicants (especially amongst those who enter the better technical colleges), since the distribution of applicants according to fee-paying ability and the distribution according to ability

levels and qualifications do not coincide. For these applicants, demand is inelastic according to price (at least within a particular range of price fluctuation).

Another, significant proportion of applicants who have not obtained state-funded places, have a number of choices: a) they can pay fees in a college of their choice; b) they can pay fees (perhaps lower fees) to enter another colleges of the same calibre; c) they can decline to pay fees and accept a state-funded place in a colleges where the entrance qualification is lower than in their preferred colleges and avoid competitive entry; d) they can decide to study a different subject (or course), with full state funding (or pay a fee that is significantly lower than elsewhere).

For this group of applicants, demand is sensitive to price variation. Price competition amongst colleges of a similar standard also plays a part, even where there is some differentiation between the services offered. This means that in the case of the better and expensive colleges, discounts from the normal fee for this group of applicants whose EGE scores do not quite meet the entrance requirement, must be quite substantial if they are to be prevented from accepting a state-funded place or a place at a low fee in another college. All of these considerations are, formally, correct, and they all go to prove that the insistence that fees should be set at a level no lower than the value of the unit of resource is absurd: marginal costs may be higher or lower than the value of the unit of resource, but the striving for equality and the existence of externalities require that the fee should be set lower than the level of marginal costs.

All of the above hypotheses are based on an assumption that is unrealistic in Russian circumstances, namely that the unit of resource will be set at a level sufficient to cover the cost of educating a state-funded student. In reality, things are quite different. In a number of excellent economics colleges budget funding is approximately one third of the financial resources of the college and the number of fee-paying students is approximately equal to the number of state-funded students. The level of fee in these colleges is close to the value of the unit of resource, although it is usually somewhat lower. The large share of non-state funding is explained by the availability of fee-paying services associated with further education and training, and research work. In a number of technical colleges there are fewer fee-paying than budget-funded students, and in these the fee level is lower than the value of the unit of resource, since demand for the services of these colleges is restricted by the number of applicants who have the necessary abilities and qualifications. In colleges with low ratings (measured by EGE scores) circumstances vary: they can admit a number of fee-paying students, whether or not they have

admitted their allocation of budget funded students. In the latter circumstance, the fee-paying students are admitted into subjects that are not the core subjects for that college, for example, into courses in management, economics or law. The fees in such colleges are usually very low and lower than the value of the unit of resource.

However, in none of the above cases, in current circumstances, can the Russian colleges (good or bad, technical or arts colleges) operate solely on the basis of budget funding and without admitting fee-paying students. Independent funding supports a significant proportion of the salaries of teaching, management and administrative staff, part of the expenditure on maintenance, expenditure on transport and communications, library and other costs. All of these circumstances need to be taken into account in evaluating the policy of setting the fee for paid education at a level no lower than the value of the unit of resources. This will in effect make for a steep increase in the level of fees for educational services in the majority of colleges.

That this is the case is shown in the results of a survey of educational fees charged in 435 state colleges conducted by the Ministry of Education and Science, during the 2010/2011 academic year.³⁶

For example in the colleges of Altai the average fee oscillated between 31,400 roubles and 56,300 roubles. Minimum fees in these colleges varied within a much narrower band of 26,000 to 31,200 roubles. The only exception was the Altai State Medical University, where the minimum fee was almost the same as the average: 52,500 roubles compared with an average of 55,800 roubles.³⁷ If the lowest level for the fee is set at 60,000 roubles, fee-paying education for the inhabitants of this region will become practically inaccessible.

A comparison of the level of the unit of resource with the cost of paid education in particular subjects and courses is equally informative. In Mathematics the average annual cost of education was 37,300 roubles; in Physics 36,000 roubles; in Biochemical Physics – 32,800 roubles, in Radio-Physics and Electronics 42,700 roubles. There is a similar picture in the natural sciences: Chemistry – 41,300 roubles; Biology – 36,200 roubles; Zoology – 38,800 roubles.

³⁶ Of course, over two years the cost of paid education has increased, but it is likely that in most regions, especially the highly subsidized regions, there has been little change, since the real growth of incomes of the population in these regions has not been significant. Also, the cost of communal services (*ZhKKh*) now competes with demand for education.

³⁷ <http://www.edu.ru/abitur/act.65/index.php>

If we take the fairly prestigious engineering subjects, for example, Energetics, Energy Machine Building and Electro-Technology, we find that there is considerable variation in the level of fees: for courses on heating electricity stations fees scarcely exceeded 45,000 roubles; for courses on electrical energy systems and networks the fee was 43,300 roubles but for courses on plasma energy installations the fee was as high as 92,500 roubles. But in general, fees for courses in engineering subjects oscillated between 36,000 and 55-57,000 roubles. The situation was somewhat better in the humanities, where college fees in a number of cases exceeded 100,000 roubles. It is worth noting that in the case of two subjects traditionally considered prestigious – economics and management studies, the higher average fee was that for courses in economics – 66,700 roubles.³⁸

All of these data lead to one simple conclusion: setting the fee for paid-education at the level of the unit of resource will make for a sharp decline in the demand for subjects that are essential to the modernization of the Russian economy.

Increasing fees above the level of the value of the unit of resource will lead to a significant flight of quite able students possessing just under the entrance qualifications from good colleges into state-funded places in colleges with lower ratings (measured by EGE scores) and to a movement of applicants with lower scores towards state-funded places in colleges with even lower ratings; and so on to the point where students will turn towards colleges outside of the state sector which, with a few exceptions, offer low-quality education at a low cost. The consequence of this will be, firstly, a deterioration in the quality of entrants to state colleges of various rating levels; and, secondly, a reduction in the revenues of state colleges from fee-paying students, given that an increase in fees will hardly compensate for the reduction in the number of fee-paying students.

Conclusion

Summing up, we can point to a whole range of negative consequences that will follow from the regulation of fees for educational services.

1. Introducing a base limit for fees for educational services, that is, the absence of any state subsidy for fees for paid education, will result in the population obtaining a lower level of

³⁸ <http://www.edu.ru/abitur/act.66/index.php>

higher education, both quantitatively and qualitatively) than is optimal for society. Another consequence will be that the concept of state subsidy of fees becomes confused. As we have shown, where there is a rising curve of marginal costs, subsidization of educational services can be achieved even when fees are set at a level lower than the marginal costs of a given college (or group of colleges offering similar services). Bringing the existing (non-regulated) fee into line with the unit of resource (in particular where every college has a official limit set on the size of its marginal student intake) makes it impossible to ascertain whether the fee is lower than or exceeds marginal costs. Given that in the majority of cases, colleges will have to increase their fees significantly above the price level currently obtaining in the educational market, then fees will, in all probability, end up being higher than marginal costs. In other words, not only will the fees not be subsidized, but the college will obtain, over and above the redemption of its expenditures on marginal costs, an additional monopoly rent.

2. The superior and average technical colleges will be deprived of good students who have obtained scores that are slightly lower than the entrance qualification. These students, who could otherwise have obtain a fee-paying place in the college of their choice, will turn to colleges that are less highly rated (in terms of EGE scores) in order to obtain state-funded places, and the applicants whom they displace will end up accepting either state-funded places in other subjects, where there is availability owing to lack of demand, or fee-paying places in colleges outside of the state sector where there is no base limit imposed on fees. This will mean that the superior colleges will retain only those students amongst those who have fairly high EGE scores who can afford to pay high fees. And given that, as we have shown, the distribution of students according to parental income level and the distribution of students according to ability do not, as a rule, coincide, we can assume that there will be a deterioration in the quality of the student intake in state colleges. This will make for a degradation of the quality of output of technical education generally, since there already exists a tendency for students with low EGE scores (scores of “three”) to become concentrated in state-funded places. This degradation will jeopardize the technical and technological modernization of Russia and the transition of the economy towards an innovation-driven path of development and will weaken the potential of Russian science in the fields affected.

3. All state colleges will have fewer opportunities for attracting the additional, extra-budget funding that in present conditions is essential if they are to function normally. The reduction in extra-budget funding will adversely affect the ability of colleges to offer satisfactory

contracts to teaching staff and their ability to renew and develop their material facilities. The quality of education in state colleges will suffer.

4. An increase in the redistribution of students in favour of the weaker colleges, including those outside of the state sector, will further impact upon the career choices of applicants, who, as of the introduction of the EGE, when choosing a profession had already begun, increasingly, to make their choices not in terms of their personal professional preferences but in relation to which colleges could offer them a state-funded place on the basis of their EGE scores. Here, the problem resides not so much in the EGE, as in the fact that applicants are allowed to submit applications to a wide range of colleges, for study in a wide range of subjects. It is those students whose material circumstances enable them to pay fees who most often succeed in obtaining the college of their choice. It is evident that if there is to be a significant increase in fees, applicants will find it even more difficult to realize their personal preferences.

5. The decision to set a base limit on fees for educational services will mean a departure from the policy that was adopted and implemented only recently in this sphere. Guided by social objectives and the long-term interests of the country, the Russian leadership took the decision to freeze fees for higher educational services for the duration of the economic crisis. The appropriate decisions were implemented during the academic years 2009/2012 and 2010/2011. This policy reflected a completely different attitude towards the admissibility and desirability of subsidizing fees for higher education.

In the Presidential Decree RF No.599 of 7 May 2012, “On measures for implementing state policy in education and science”, there is mention of the need to increase budget expenditure on education. From this point of view, the requirement that fees be set no lower than the unit of resource of budget funding is anomalous: the more resources are allocated per state-supported student, the more expensive fee-paying education will become for those whose EGE scores do not meet the entrance requirements of a good college, even if these scores are fairly high. This means that in proportion as budgetary expenditure on higher education increase, access to education of good quality will be reduced, despite all government declarations to the contrary and despite the expectations that have been created within the population.

Furthermore, the objective announced in Decree No.597 of 7 May 2012 “On measures for implementing the social policy of the state” of doubling the salaries of the Professorial and Teaching Staff (PPS) of colleges is undermined since, as our calculations have shown, it is by

securing revenues from fees that are, as a rule, lower than the value of the unit of resource, that colleges, including the best colleges, acquire the ability to pay decent salaries to their teaching staff.

6. The setting of a lower fee limit for educational services will reduce competitiveness in the market for paid educational services. This will constitute a violation of anti-monopoly legislation, in so far as it will reduce opportunities for colleges to compete by lowering fees while increasing the efficiency of the work of the educational organization (of course, an increase in the efficiency of delivery of educational services can be achieved by a reduction in value of the unit of resource or by an increase in the requirements of the founding institution with respect to the quality of services to be delivered). The setting of a base limit for fees for educational services is analogous in its consequences to an agreement between participants in a market to create a monopoly.

In the long term, there will be two basic consequences of the introduction of a base limit on fees for paid educational services. Firstly, the quality of human capital, in the formation of which education plays the decisive role, will decline; opportunities for economic growth will therefore diminish as will the quality of life of the population, given the lower quality of education that will be available. Secondly, there will be an increase in the inequality of incomes in society, since a proportion of students, owing to the increase in fees, will not be able to obtain higher education (or a good education). Most often, this will be the fate of those applicants who should receive not only education but supplementary (compensatory) education. This is because state-funded places will be occupied by the most able students, or by the more affluent students, whereas, for the most part, students who are in need of a significant amount of education but who are unable fully to pay for this education, will have to pay fees that were, in the past, in most cases subsidized out of the budget (the fees were lower than the marginal costs of delivery of the services in question).

In addition to all of the above, we have to point out that future developments in education, following adoption of the funding measure in question, are far from clear. If implementation by the colleges is strictly monitored by the Ministry of Education and Sciences, and sanctions are applied to those colleges that do not comply, then it is likely that the consequences will be what we have predicted. However, it is very probably that two alternative scenarios will ensue.

The decisions that have been taken (as happens with many other decisions in this sphere) could be “forgotten”. There will be no practical consequences for the Ministry of Education and Science, other than a reminder of the contradictory nature of interventions in the sphere of educational management and the absence of any sensible policy in this domain.

The colleges might devise various ways of bypassing the requirement. For example, after publicly setting high fees for their services, and formally meeting the requirement that these fees should exceed the value of the unit of resource, the colleges could introduce a system of discounts (in compliance with tax legislation) for particular groups of applicants according to the EGE scores that they have obtained and progress reports once studies have commenced; or according to material circumstances. They could award grants to successful fee-paying students and organize supplementary (voluntary) remedial programmes for unsuccessful students. Formally, a high fee for an educational service could be agreed in a four-year contract which would constitute a reduction in the real cost of the fee, in the light of inflation. Measures such as these would enable a college to co-finance the education of students who have not obtained state funding, whilst formally charging a high fee.

To sum up, the approach that has been analysed in this article to the setting of the unit of resource allocated to colleges for the funding of their state plan (*zadanie*) and to the setting of the level of fees for paid higher education, whilst it formally facilitates a transition to a “per capita unit of resource” system of funding of higher education and “relieves” the state of the requirement to subsidize the education of a proportion of its citizens (subsidization of this kind is practiced in almost every country in the world) at the same time has a number of consequences that are damaging for the quality of higher education, for the economic viability of the colleges of higher education and for the stability of social relations. Under this last heading we include prospects for the social mobility of the younger generation. The implementation of this policy will inflict both social and economic losses upon the state.