MERIT BASED VOUCHERS FOR HIGHER EDUCATION IN RUSSIA

AN ANALYSIS OF THE VOUCHER EXPERIMENT IN THE MARI REPUBLIC IN ITS EARLY PHASE 2002-2004

Marina Kleshchukova

HEDDA Program
Institute for Educational Research, Faculty of Education

UNIVERSITY OF OSLO
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Abstract

Many governments concentrate their efforts on finding new funding mechanisms, which will make their higher education systems more efficient and which will allow to attract non-budget revenues into the sector, if possible without negative effects on equity.

Vouchers for funding higher education have been proposed in Russia as a solution to the mentioned problems. Voucher schemes for higher education have been discussed in several countries but have not been implemented, because every voucher model might have certain advantages and shortcomings depending on its design, and on the particular environment, where the program is supposed to be implemented.

The experiment of the merit-based voucher system started in three regions in Russia in 2001. The objective of this study is to see how the voucher system has affected higher education in Russia. The study provides a detailed description of the voucher model which is being used in the Russian experiment and attempts to analyze the current experiment and to evaluate its social and economic consequences in general and its effects on equity and efficiency in particular.

Data were gathered through analysis of policy documents and interviews which were conducted in three higher education institutions in Mari Republic, one of the experimental regions.

The analysis indicates that the effect of the voucher experiment is increased inequality in the access to higher education, and that it is difficult to see any improvements of efficiency. However, there is a potential for improving efficiency, especially through a fairer implementation of the state exam that defines the value of the voucher to each student. Russia is marked by big social inequality, particularly between rural and urban areas. Market governance through vouchers introduced in such a social context seems doomed to increase inequality.
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Chapter 1 Introduction

1.1 Study background

The current condition of higher education is often characterized from the perspective of insufficient government funding. The massification of higher education – a phenomenon describing the increasing popularity of undertaking a higher learning programme - has led to a growing share of higher education expenditure in public budgets (Teixeira, Jongbloed, Amaral, Dill 2004: 1) and has made it more difficult for governments throughout the world to provide an adequate level of funding to their post-compulsory systems of education. Even the richer industrialized countries of the world are increasingly unable (or unwilling) to maintain their previous levels of expenditure on higher education. The very existence of some institutions is imperilled in poorer countries (Green, Hayward 1997). As a consequence, the debate regarding funding takes place in a context of financial stringency and is therefore focussed on efficiency. Many reforms of resource allocation mechanisms for higher education were undertaken in the 1990s. These reforms aimed in general at the strengthening of market-type mechanisms with respect to higher education and they resulted in the diversification of sources of funding apart from the state, often including the shift of the higher educational cost burden from governments to students. Since there is no ideal method of funding education (Jongbloed, Koelman 2000: 11), there are continuous debates on which type of funding mechanisms can provide universities with incentives to make the most effective use of funds, and on how will they affect the quality of education and access to education. Student-based funding (or funding through educational vouchers) is one of these mechanisms and has been discussed in a number of countries.

Also the Russian higher education system has experienced a considerable underfunding over the past decade. There were significant changes in the 1990s, which affected the socio-economic and political situation in the country in general and the higher education sector in particular. These changes consisted, amongst other things, in a reduction of state ownership, government regulation, and government funding. They brought higher education institutions both freedom and instability. The decrease in public funding went much faster than the adaptation of Russian universities to the new market-driven economy. This period resulted in a
sharp decline in the quality of education due to low salaries of teaching personnel, lack of modern equipment and modern scientific literature. In order to survive, universities were granted the right to admit a limited number of students on a fee basis. In addition, there was a growth of the private sector in higher education. In 2000, 44 percent of the students were tuition-paying (Klyachko 2002).

By the year 2000, it was recognized that the existing resource allocation mechanism did not provide higher education with an adequate level of funding. In addition it had become clear that high quality education became accessible mainly to children from well-off families. In spring 2000, the Center for Strategic Development in cooperation with the Higher School of Economics developed a program of reforming Russian education, which was called Strategy for Russia: Education. Among other measures for modernizing the educational sector, the program proposed the introduction of vouchers for higher education. It is assumed, that the changing role of the state in resource allocation as a consequence of the introduction of a voucher system will contribute to enhanced effectiveness in the distribution of financial resources, strengthened efficiency in the market for higher education, and enhanced accessibility of higher education. This element of the reform provoked the most heated debates in society. In winter 2002, the Government of the Russian Federation passed the resolution about the realization of an experiment with a voucher system in 2002-2003. In the Russian experiment, the voucher is called Gosudarstvennoe imennoe finansovoe obzazatelstvo – GIFO (the state personified financial certificate).

1.2 Rationale for the study

Vouchers for education are not a new idea (Jongbloed, Koelman 2000: 11). The first voucher system was proposed in the 1950s by Friedman (1955) as a method for improving the quality of school education. In recent years, there has been renewed interest in the use of vouchers and a lot has been written about the topic.

Though many voucher proposals have been suggested, there can be distinguished two schools of thought corresponding to two dominant final objectives of the use of vouchers (Jongbloed, Koelman 2000: 14). These are the liberal market approach and the social policy approach. The
liberal market approach emphasizes the issue of efficiency; the social policy approach is concerned with the issue of equity. The rationale for this study is to see how the GIFO model works in practice, and whether the new resource allocation mechanism allows achieving both objectives at the same time, as claimed by the authors of the Russian model.

1.3 Significance of the study

Vouchers are a very controversial issue which has a lot of proponents as well as opponents among economists, politicians, educators, and the general public. Even if one can argue from a theoretical point of view that the voucher concept as a means of stimulation in providing public goods is irreproachable, it often happens that its practical use discredits the voucher idea as a system of state subsidies. Many voucher models have been thoroughly analyzed in the literature. However, there has been very little empirical testing of ideas (Jongbloed, Koelman 2000). There have been only a few experiments with vouchers and they have been concerned with financing compulsory primary and secondary education. Until now, no country has introduced vouchers for higher education. The significance of this study is in providing information on an experiment of a voucher system being used for funding of higher education. The GIFO model is almost not known outside Russia, which can be explained by the fact that the experiment has started only two years ago. In addition, the Russian authorities have kept relatively quiet about the voucher experiment. In line with the two ultimate aims of a voucher system the study is intended to focus on the social and economic consequences, which this new resource allocation mechanism may have.

1.4 Research question

Based on the objectives of the Russian voucher model the following research question has been formulated:

How has the introduction of vouchers affected higher education in Russia?
Taking this research question as a starting point, this study will discuss aspects of:

- equity and efficiency
- amount of resources available
- administrative costs.

The overall research question can be operationalized through the following sub-research questions:

1) How can the voucher model that is being used in the Russian experiment be characterised?

2) How has the student-based funding through the voucher system affected the effectiveness of the use of public funds?

3) How has the student-based funding affected the access to higher education?

1.5 Methodology

1.5.1 A case study

The case-study approach has been chosen in this study since it gives an opportunity for a problem to be studied in some depth within a limited time scale (Bell 1987: 6). Also, it has been suggested (Yin 1994: 9) that for “how” and “why” questions the case study has a distinct advantage. The research question in this study is how the introduction of a voucher program has affected higher education in Russia.

Attempting to define a case study, Merriam (1998: 31) summarizes that a case study can:

- Explain the reasons for a problem, the background of a situation, what happened, and why.
- Explain why an innovation worked or failed to work.
- Discuss and evaluate alternatives not chosen.
- Evaluate, summarize, and conclude, thus increasing its potential applicability.
The topics presented above encompass central elements in any analysis of a policy reform, and thus will be helpful for the structuring of this study.

1.5.2 An evaluative case study

Hoyle, Harris, and Judd (2002: 338) suggest that the purpose of evaluation research is to answer practical, real-world questions about the effects of some policy or program. Since this study is intended to discuss the effects of the voucher program initiated by the Government of the Russian Federation, it can be defined as an evaluative case study. According to Guba and Lincoln (Guba and Lincoln 1981 in Merriam 1998: 39), case study is the best reporting form for evaluations. Evaluative case studies involve description, explanation, and judgment (Merriam 1998: 39).

1.5.3 Data collection

Several sources for obtaining data have been used in this study. Policy documents have been used to describe the voucher experiment, its objectives, and procedures by which the experiment attempts to realize its objectives. These documents have been obtained from the special website of the State University – Higher School of Economics, which contains the information on the course of the experiment. Statistical archives and research survey archives produced by the Higher School of Economics have been used to describe how the program works in practice and what kind of problems have occurred in the process of the reform implementation. Publications in journals on higher education, as well as in regional and national newspapers have been used to present different perspectives on the voucher program from various stakeholders. Publications in international journals on education have served as a source of data on international experience with respect to educational vouchers. Finally, interviews with administration and faculty staff of three higher education institutions-members of the voucher experiment have been used to assess the impact of the reform on Russian higher education. In these three institutions all together, I interviewed two prorectors, three deans and one employee in a department for planning and finance. In addition, I interviewed one employee in the Republican testing center.
I also considered interviewing students, but came to the conclusion that such interviews probably would have very limited value. It would be very difficult for students knowing only the student situation under the GIFO conditions to give perspective on how the experiment eventually had led to changes at campus compared with the established system.

Semi-structured interviews have been used in this study. The reason for using this kind of interview is that “the interviewer usually has some latitude to ask further questions in response to what are seen as significant replies” (Bryman 2004: 113). Interviews consisted of open-ended questions and were conducted in a face-to-face mode. Notes made during interviews were used to recall what informants said and to provide contextual understanding.

1.5.4 Obstacles in the data collection

The GIFO experiment is an example of bringing liberal market elements into the public sector, much inspired by the theories of New Public Management. One might expect that a liberal reform went along with transparency, but my experience was rather that there was a significant level of secrecy around many topics and sources. Unfortunately, this is not untypical for either New Public Management or for Russia in general. Most important, the Higher School of Economics as the academic institution in charge of initiating and evaluating the experiment kept strict control on their informants. There are contracts which deprive these of the opportunity to share information with third parties. The Higher School of Economics does not by far publish all the material they assemble or produce themselves. The SSE (Standardized State Examination) and the GIFO are debated in the media, but somehow it seems like the publicists lack proper information on which to base their articles. From some of the participating institutions, it turned out to be a problem to obtain material containing information or evaluation on their experiences and performance. Thus, it was necessary to rely much on oral information, and on articles and statistics which I obtained through a rather unsystematic scan of sources available at the internet, in periodicals or in newspapers.
1.5.5 Limitations of the study concerning validity and reliability

Limitations of validity

One of the standard criticisms of the case study is that findings deriving from it cannot be generalized (Bryman 2004: 52). At present, the voucher experiment is taking place only in three out of 89 regions of Russia: Mari Republic, Chuvash Republic, and Yakut Republic. This study will present data obtained in three higher education institutions of Mari Republic. The data will be dealt with as if the whole Mari Republic was one case.

The regions of Russia differ significantly regarding their level of socio-economic development, scale of contribution to the national economy, economic specialization and amount of accessible natural resources, rate of population growth, culture and ethnicity. These factors influence to a large extent the condition of a higher education sector in a region. Also, economical and territorial factors are decisive regarding access to higher education. At the same time, there are certain social traditions and economic processes which are common for the whole country. Thus, some findings which will be derived from the case study of the voucher experiment in Mari Republic can not be generalized to the whole country, but these might indicate consequences of the introduction of vouchers for higher education in regions similar to Mari Republic, if the proposed reform will be implemented in a larger scale.

Limitations of reliability

One limitation of this study is that the information provided through interviews is filtered through the views of the informants. Many factors can influence responses, one way or another (Bell 1987: 73). As for the topic of this study, some researchers assert that it is difficult to access the impact of vouchers on education since many discussions regarding the subject are based on ideology. The most active proponents of vouchers in education are libertarians, and the opponents are egalitarians. One can assume that arguments for and against introduction of educational vouchers as well as published findings of research reports often reflect not economic advantages and disadvantages of this funding mechanism, but the difference in ideological approach to the role of education in the modern society. According to Levin and Belfield (2004: 21), the engine of ideology in motivating views towards educational vouchers
is particularly frustrating to social scientists who believe that their role in uncovering evidence on consequences should be central to the choice of educational reform. Thus, the ideological position of the informants may lead to some bias.

In addition, speaking about a debate between supporters and opponents of educational vouchers, Levin and Belfield conclude (2004: 22) that although both sides argue about what is best for children, the fact is that there will be winners and losers among adults with different interests. Also with respect to the Russian case, it should not be forgotten that public means are redistributed in the course of the experiment between different institutions, faculties, and educational programs. Besides, some informants may have financial benefits from it, as for instance extra pay for monitoring the experiment. On the other hand, the conditions of the experiment eliminate the possibilities for some extra personal income from tutoring for teaching staff at the institutions, a fact which may colour responses.

1.6 Organization of the study

The thesis is composed of six chapters.

Chapter 1 serves as an introduction, where study background, study rationale, significance of the study and methodology are presented.

Chapter 2 presents overview of the literature on different types of funding mechanisms in higher education and their effects on the higher education sector. Since the GIFO experiment implies students’ contribution to financing their education, theoretical and practical rationales for increased cost sharing and for the preservation of low (or no) tuition are presented. Particular emphasis is placed on student-based funding and effects of educational vouchers on institutions and students. Since most of the voucher models are concerned with the issues of efficiency and equity, the relation between these two concepts is discussed.

Chapter 3 serves as background information of the voucher experiment in Russia. It provides information about the condition of Russian higher education and characteristics of regions and authorities involved in the experiment so that difficulties of implementation of the reform and
its consequences can be better understood. Also, the main principles of Russian voucher model are presented in this chapter.

Chapter 4 presents and discusses adjustments made in the process of the voucher program implementation. It also describes the adaptation of higher education institutions to changed conditions of carrying out the experiment. Finally, the consequences of these changes and proposals for further adjustments are presented and discussed.

Chapter 5 presents the empirical findings. Data from the case study of higher education institutions in Mari Republic are presented and analyzed on the basis of the theoretical framework.

Chapter 6 presents conclusions to all the research questions, discusses possibilities for improvements of the existing voucher model and possible alternatives to it.
Chapter 2 Theoretical framework

2.1 Higher education funding

Higher education has become one of the most important mechanisms for economic and social development. The massification of higher education is generally supported since it is considered to be an investment with an economic return both for individuals and society. However, the expansion of national higher education systems has made their public funding problematic. Governments in many countries have become concerned with how to make their higher education institutions operate more efficiently and how to use public money in the most effective way in a situation of scarcity. Through the stimulation of institutional autonomy, they try to make their higher education systems more responsive to the needs of society and industry (Van Vught 1989 cited in Kaiser, Florax, Koelman, Vught 1992). As far as financial autonomy is concerned two methods appear to be used by governments: a change of the funding mechanisms and an increase of the share of non-governmental resources in institutional budgets. Both methods tend to imply a reduction of a government’s contributions to higher education (Neave, Van Vught 1991 in Kaiser, Florax, Koelman, Vught 1992), and both will be discussed later, in part 2.2. The funding mechanism used by governments to finance a higher education system can influence the level of efficiency of the higher education institutions. Depending on its characteristic features, the funding mechanism contains a number of incentives and/or disincentives that are of importance within the scope of institutional efficiency (Kaiser, Florax, Koelman, Vught 1992: 28).

2.2 Types of funding mechanisms

2.2.1 Government allocated funding

It has been suggested that there are four basic types of resource allocation mechanism (Albrecht & Ziderman 1992): negotiated funding, input-based funding, output-based funding, and student-based funding.
In a system of *negotiated funding* the allocation of funds is based on budget requests of the university in a process of budget negotiations between the university and the government. The starting point for budget assessment is the amount the university received in the previous year.

*Input-based funding* is a system in which financial means are made available to cover distinct costs of higher education, i.e. costs of faculty and staff, costs of investment, building maintenance costs, material operating costs. Input-based funding is often referred to as enrollment-based funding, because the number of students determines the level of inputs made available for the instruction process.

In an *output-based funding* model, funding is based on the achievements of the university in teaching and research activities. Output-based funding is also known as performance-based funding, because institutions receive funds according to their results in producing graduates, post-graduates and research publications.

The core idea of *student-based funding* is that money follows students. In this mechanism, allocations are made through vouchers. A voucher is a coupon which students receive from the government and which represents a certain value expressed in terms of money. This voucher is then presented to the higher education institution of the student’s choice. The institution receives money from the government according to the value of the voucher. Student choice, therefore, becomes the key element in the system (Jongbloed 2000: 18).

It is argued that in the first and second type of funding mechanisms, there is almost no encouragement for institutions to be efficient or responsive to changing external demands. Both the output-based and student-based mechanisms incorporate incentives for institutions to make the most effective use of scarce funds and to adapt to the labor market and student demands. Student-based funding in particular promotes competition between institutions (Jongbloed 2000: 19). However, the research conducted by Jongbloed and Vossensteyn (2001) on government policies for funding higher education in 11 OECD countries shows that very few countries use performance indicators in their funding mechanisms. This is explained by the fact that performance indicators for funding purposes can have undesired effects on quality. As for the student-based funding, there were plans for the introduction of vouchers in several countries, but those plans were not submitted or implemented, amongst other things, because the effects of this funding mechanism remain unclear.
2.2.2 Students’ contributions to financing

Diversification of sources of funding seems to be the popular answer to the problem of decrease in public expenditures on higher education. We can observe cost sharing entering into the public policies of countries with totally different social-political-economic systems and at totally different stages in their economic development or industrialization or in the expansion of higher educational participation: e.g. China, Vietnam, the UK and Austria (Johnstone 2003: 2).

Education is a process, which changes the characteristics of those who go through it, thereby enabling them to receive various satisfactions, immediately or later. But it is also appreciated by society as a whole, which for various reasons feels that it should not be bought and sold through the market on a purely commercial basis (Eicher and Chevaillier 2002: 73). In order to answer the question “Who should pay for higher education?” theoretical and practical rationales for increased cost sharing and for the preservation of low (or no) tuition must be presented. Literature on cost sharing in higher education provides the following rationales for the shift of part of the cost burden from the government to the students and their families:

- the sheer need for other-than-governmental revenues (Johnstone 2003: 2), caused by the expansion of national higher education systems;
- substantial financial returns of educational investments: international estimates of the returns to an extra year of education lie somewhere in between 5 % and 15 %, depending on the time and country (Canton & Venniker 2001: 36; Jongbloed 2003: 126);
- non-financial returns such as higher social status, greater efficiency in consumption, better health, increased political efficacy, greater access to and better understanding of culture, science and technology (Eicher and Chevaillier 2002:74), labour market search efficiency, marital choice efficiency, attainment of desired family size, child quality (level of education and cognitive development, health) (Canton & Venniker 2001: 37);
- the presumption of greater efficiency: that the payment of some tuition will make students and families more discerning consumers and the universities more cost-conscious providers (Johnstone 2003: 5);
- the assumption that the need to supplement public revenue with tuition will make universities more responsive to individual and societal needs (Johnstone 2003: 5);
- the fact that people are inclined not to appreciate what they do not have to pay for and consume free goods indiscriminately and wastefully. When a fee, however modest, is collected, rationality tends to increase (Eicher and Chevaillier 2002: 74).

The opposite view consists of the idea that society is the major beneficiary of higher education, and that the total returns to educational investments for society may exceed the sum of all private returns. Societal benefits include facilitating technological progress and boosting economic growth, better informed judgments with respect to health, more informed public debate, and more sophisticated voting behavior (Jongbloed 2003: 126). Higher educated individuals may enhance social cohesion, and are less likely to engage in socially wasteful criminal activities (Canton & Venniker 2001:38).

The supplementation of higher educational revenues by non-governmental sources (primarily from students) brings with it certain financial risks and instability to the institutions. Also, according to many academic traditionalists, following the preferences of students-consumers is the road to academic mediocrity (Johnstone 2003: 6). In addition, as higher education becomes more expensive to the students, they will be more inclined to seek alternatives to universities and enroll in short programs of the non-university sector. The danger is that such diversification can result in an intensified stratification of institutions according to prestige, with poor students in short and applied programs and richer ones in the university sector (Green and Hayward 1997: 11).

For any nation a discussion on students’ contributions to the costs of higher education may involve at least the following elements:

- Is it politically possible to increase the public expenditure on education instead through tax increases or changed budget priorities, especially bearing in mind the long term effects education has on economic growth and other parameters?
- Is there a danger that introducing or increasing students’ fees will lead to a demand failure compared to the nations’ needs for highly educated people? Or on the contrary, is there a need to find mechanisms to reduce overproduction of academic candidates?
- Is there a risk that recruitment to higher education will be so socially polarized that it can be regarded as undermining equity and is it a threat to social stability?
These questions should not be dismissed as merely matters of professional convenience for decision makers in the sector down to the particular institutions; they necessitate a serious political value choice for the democratic bodies of the nation. Unless free of charge education is regarded as an important principle, it should very much be a question of the size of a fee related to the income distribution among the potential students, or maybe rather among their parents. The paradox seems to me to be that the poorer nations have a greater need to provide higher education free of charge or to low fees than the richer. They may have the most to gain by this in many ways, and thus should have a strong incentive to make education their budget winner. At the other end of the scale, a certain complacency can be observed among students for instance in the Scandinavian countries, where also future income is less related to the level of education than in most other countries. A moderate fee could have some positive effects on capacity problems, students’ motivation and their efficiency, without having too harmful distributive effects. On the other hand, a financing problem for the educational institutions could not be fully solved through students’ fees without serious effects on equity even in these countries.

2.3 Effects of funding mechanisms

Speaking of the effects of funding systems in general, it should be noted that the type of funding mechanism adopted will have different effects in different facets of the operation of higher education institutions (Cheung 2003). They are summarized by Cheung as follows: equity of student access (Jencks 1970; West 1996; Witte 1996), autonomy of institutions (Geuna 1998; Karmel 1991), influences from funding sources (Albrecht and Ziderman 1992), competition among institutions (Sparkes and West 1998; Parry 1997), stability of institutions (Dowds and Hudson 1999; Harman 1999), responsiveness to students and labour market demands (Jongbloed and Koelman 2000), quality of education (West 1996; Albrecht and Ziderman 1992), and the fiscal burden of the government, tax payers and household (Zhang 2000; Johnstone 1998).

The above presentation of effects of funding mechanisms is very detailed. This study will use only four criteria for analyzing student-based funding, as suggested by Eicher and Chevaillier (2002: 80). They argue that the effects of various innovations introduced in a given funding system can be assessed according to the following criteria:
1) Efficiency
2) Equity
3) Resource broadening potential, that is, the capacity to generate new resources by bringing in new categories of fund providers or by inducing existing contributors to increase their funding.
4) Administrative costs, which may lower the net intake of new modes of financing.

2.3.1 Definitions of efficiency and equity

Efficiency can be defined in economical terms as the amount of resources necessary to make each unit of a given product. Resources will normally be measured in money, so the rate of efficiency will be the production cost per unit of unchanged quality – the less money per unit, the more efficient. Quality improvement without increased use of resources may also be seen as a variant of increased efficiency.

Equity can be defined as a principle of distributive fairness with full equality of benefits within a certain group as its ideal, and concentration of all benefits in the hands of one or a few persons within a group as the opposite.

2.3.2 Discussion on the relation between efficiency and equity

It is often assumed that there is an inherent conflict between efficiency and equity. The argument is that when the distribution of various benefits approaches equality, the incentive for efficient economic behaviour disappears, since performance will only to a little degree influence income. In an ideal type market economy where everybody has full information of prices and products and the competition between providers of various goods functions perfectly, efficiency will be secured as a series of outcomes of the relations between supply and demand for each product. There is no specific ideal of the level of equity in this model, other than that the maximizing of profit opportunities should be unhampered. Generally this is often thought of as resulting in relatively large inequalities, but maybe justified by such systems’ efficiency, i.e. that even the poor will be better off with being in the low end of an efficient system than have perfect equality in the kingdom of misery.
It is not difficult to find examples of societies which both lack efficiency and equality, and among the most efficient economies in the world it is possible to find examples of relatively egalitarian societies, for instance Finland. In Scandinavia, state financing has secured free access to higher education on a rationale of equity, and has led to massification to a very high degree. It can be argued that the massification in these countries has reached a point where it reduces the efficiency of higher education institutions. On the other hand, it has provided these countries with a large academically skilled work force, which has had very positive effects on the economic growth. The policy of equity might in other words increase the overall efficiency of the economy, even if the educational institutions are hard pressed. Also, it may be argued that the quality of life can be better for everybody or at least the large majority in a society with limited inequality. Equity tends, for instance, to reduce crime rates and improve even rich persons life expectancy. These comments are only meant to illustrate that the relation between efficiency and equity is a complicated matter, both from a normative and an empirical point of view.

In theoretical discussions of the efficiency/equity relation, one can hardly bypass the concept of *Pareto optimality* and *Pareto improvement*. The Italian economist and sociologist Vilfredo Pareto was occupied with the potential for just efficiency improvement. A situation where one or more persons can increase their amount of benefits without anyone else needing to loose anything is seen as suboptimal, and changes in the mentioned direction are called Pareto improvements. A situation where any improvement for one means a loss for others is Pareto optimal. Even within the same market there can be numerous different possible adaptations who are all Pareto optimal, with very different results concerning equity. It must also be remembered that there can be situations where efficiency maximizing necessitates a non-Pareto optimal distribution, for instance, in cases where the poor should become poorer if the aim is to increase the total output. If equity is the prime objective, it may be necessary to modify even a Pareto optimal distribution.

An analysis with Pareto perspective becomes much more complicated when the relation between markets of different products and the dynamics of new technology and changing modes of production are included. In this thesis the sector of higher education in Russia will be considered as one single market, and analysed as if all other factors were held constant. This of
course is invoking violence on reality, but is necessary for the sake of simplicity. I will discuss how the GIFO voucher system affects both efficiency and equity.

2.4 Student-based funding

2.4.1 Vouchers and efficiency

According to the literature on vouchers, the objective of all voucher models is to enable students to exercise a greater degree of freedom in selecting an appropriate higher education institution. Choices made by students (or clients) would drive the system, thus strengthening market forces and reducing government intervention and regulation in the higher education operation. According to Jongbloed and Koelman (2000: 12), the introduction of market forces leads to competition and competition will strengthen efficiency, because only the most cost-effective providers will be able to survive. Also, many voucher proponents argue that competition would motivate institutions to be more responsive to demands and preferences of students, and this, in its turn, would result in flexibility and diversity in programs and methods of instruction.

Based on the above presented arguments, the assumption can be made that vouchers contribute to an increase in three types of efficiency (Jongbloed 2004: 11) with respect to deregulation:
1) An increase in internal efficiency of organizations (production requires fewer resources).
2) An increase in allocative efficiency (supply is matching/meeting consumer demands more closely).
3) An increase in dynamic efficiency (more incentives for innovation in process and products).

The voucher market model of Friedman (1955) in particular pays a great deal of attention to efficiency issues. In his model, the value of the voucher is the average cost of a place in a state school, or a proportion of that cost. Vouchers can be used at all accredited institutions, both public and private, and schools have complete freedom in their choice of pupils. The institutions are allowed to charge fees which are not restricted to the value of the voucher.

To opponents of voucher schemes, their efficiency advantages are debatable and their equity effects almost certainly deleterious. The efficiency issue hinges on whether parents are
sufficiently well-informed to police the standards of their child’s school and, if not, whether a publicly organized inspectorate will be more effective with public or private provision (Barr 1993: 367).

2.4.2 Vouchers and equity

Equity in education refers to equality in access, resources, and educational outcomes for groups that have traditionally faced differences on these dimensions (Levin 2004:11). Some voucher proposals emphasize the importance of equal access to education, when institutions are not allowed to charge fees on top of the value of the voucher, or when the value of the voucher can vary according to the level of parental income. The best known voucher model which is concerned with distributional goals is that of Jencks. In his model, as described by Barr (1993: 366) the basic voucher covers the full average cost of state education. Topping up is not allowed, but low-income parents can receive a compensatory increment to the basic voucher, thereby diverting resources to schools with disproportionate numbers of children from poor backgrounds. Schools where demand exceeds supply are constrained in that they must allocate at least half of the available places by ballot.

In equity terms, it is argued (Barr 1993:367) that voucher schemes will increase inequalities in the distribution of education (both quantity and quality) by social class (though less so in the case of a Jencks type of scheme than under the Friedman proposals). Vouchers might have advantages only for middle-class families, because even if both better off families and worse off families are well informed about schools and educational programs offered, middle-class families are more able to make prudent choices due to their education and greater experience with choices in general, while they also have means necessary to exercise these choices.

Comparing the two models (those of Friedman and Jencks), Jongbloed and Koelman (2000: 16) conclude, that in voucher schemes there always will be a trade-off between individual freedom of choice (efficiency) and equality of educational opportunity (equity). Complete individual freedom of choice results in inequality of educational opportunity.
2.4.3 Vouchers and resource broadening potential

For countries with a comparatively low private contribution as well as a limited public budget, one of the aims for the introduction of vouchers might be to increase total spending on higher education by increasing private contributions. If the value of the voucher does not cover the full cost of education, and students (or their parents) have to pay the difference between the price set by institution and the value of the voucher, then the total amount spent on education will increase. This might allow institutions to educate more students, which is important when a country is experiencing massification of higher education, which requires additional financial resources. In this case, students would base their decision on where to enroll on both quality and costs. However, this would again negatively affect access to education.

2.4.6 Vouchers and administrative costs

Many researchers of funding mechanisms in education point out that the administrative costs of a voucher scheme depend on the special setting of a scheme and the particular environment where it is to be established. Most of them also agree that voucher systems do not simply reallocate existing money, and that additional funding and staffing would be required to run such programs (even if some cost reduction would seem possible, as negotiations between institutions and Ministry of Education could be minimized). For instance, Levin and Driver (1997) estimate that the public costs of a voucher scheme in a representative US context could raise public educational costs by 25% or more (Jongbloed, Koelman 2000: 13). The study on administrative costs of educational vouchers by Hill (2003) concludes that voucher programs may cost more and require more administrative work than policy makers believe.

2.5 Summary

In this chapter, different aspects and variations of government and student’s contribution to financing of higher education are presented. The concepts of efficiency and equity are defined and related to financing of higher education. Student based funding will be analyzed according to the four criteria of efficiency, equity, resource broadening potential and administrative costs. This structure will be applied in the empirical chapter 5.
Chapter 3 Background of the voucher experiment in Russia

3.1 Introduction

This chapter is divided into six sections. Section 3.2 deals with the situation in Russian higher education at the moment the GIFO experiment started. It discusses mainly economic problems of the sector, growth of paid education as a consequence of reduction in state funding, and problems of access to higher education. In the subsequent sections 3.3, 3.4, and 3.5 authorities, regions, and universities involved in the experiment are described. Section 3.6 presents the main principles of the GIFO system and of the Standardized State Examination (as an important part of the experiment) on the basis of normative documents developed by the Government and the Ministry of Education of the Russian Federation. In section 3.7, some assumptions about the effects of the GIFO system are stated, which are based on the literature presented in the previous chapter.

3.2 State of Russian system of higher education at the moment the experiment started

3.2.1 The financial situation of higher education

The last 10 years were marked by a swift development of the system of higher education in Russia, in spite of its constant lack of finance. The number of students reached bottom level in the mid 1990s and then began to grow in Russia as a whole as well as practically in all of its regions. By the beginning of the academic year 2002, the number of students in the country had grown 2.1 times compared to 1990 and reached 5.95 mln. The number of universities also doubled and reached 1039 by the year 2003 (Litvintsev, undated). At present, the proportion of state higher education institutions to private ones is 63.5 % to 36.5 %. However, most of the private institutions have very low number of students. This can be demonstrated by the fact that 93 % of students study in state higher education institutions, and 7 % in private universities. In only 7 % of all private institutions does the number of students exceed 1000 (Bagautdinova 2003: 80).
At the same time, the overall situation in the higher education system of Russia was determined by very unsatisfactory public financing, which was caused by the macroeconomic situation in the country in the 1990s. Between the mid-1980s and mid-1990s Russia’s GDP fell by about 40-60 % according to different estimates. The economic crisis adversely affected the level of state funding of the education system. Though the share of non-governmental revenues in the total expenditures on higher education is growing, their increasing share does not provide enough resources either for development, or even for normal functioning of higher education institutions in this situation where the level of state funding is systematically falling.

By the end of the year 2001, both governmental and non-governmental sources of funding covered only 33 % of the real needs of a higher education institution. The program “Conception of Modernization of Russian Education through 2010”, adopted by the Government in 2001, recommends increasing expenditures for education from the federal budget by 25 % per year, and from local budgets – by 10% per year. If this is implemented, the real needs of the higher education sector will be satisfied by 95 % in the year 2010. This will be possible only if the GDP will grow by 5 % each year. The Government believes, however, that in reality the increase in expenditures from the federal budget will be only 5 % per year, and from local budgets – 2 % per year. Thus, underfunding of higher education will consist of 45 % by 2010.¹ Consequences of insufficient financing are worse conditions of study, deterioration of the material base of universities, constant delay of teachers’ salary payment, growth of the private educational sector and a system of admitting students on a fee basis also in the public institutions, and increase of social tension in universities (Council of Federation 1998). Significant reduction of research activities in higher education institutions and curtailment of their collaboration with industrial research laboratories were also due to insufficient funding.

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<td>Education all together</td>
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Table 3.1 Expenditures on education in % of national budget
(Source: Bagautdinova 2003: 136)

¹ These data were presented at the conference “Economics of Education” organized by the Ministry of Education and the Center for Strategic Development in December 2001.
Even though the relative share of expenditure on education as part of the national budget remains more or less the same, the amount of money spent on education fell dramatically during the 1990s, as shown in the table beneath.

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*Table 3.2 State expenditures on education as proportion of the 1991 level (1991=100 %)*

(Source: Bagautdinova 2003: 141)

The growth of the number of universities and the quantity of students in state universities is generally explained by the growth of paid education, whereas the quantity of free of charge places remained practically the same. In 1995 only 15 % of freshmen paid tuition fee, in 2000 this had already increased to 44 %. In the academic year 2001-2002 the Rubicon was passed and 53 % of the new students in state universities paid for their study; if we take all universities in the country – it will be 55 %. Of the total number of students, more than 40 % pay tuition fees (Klyachko 2002).

![Fig. 3.1 Trend of admission to higher education institutions in the Russian Federation](Source: Ministry of Education of the Russian Federation 2002)
The academic year 2000-2001 was a significant one in the sense that the total amount of non-governmental revenues exceeded the total amount of governmental expenditures (Figure 3.2).

![Bar Chart](image)

**Fig. 3.2 Proportion of average governmental and non-governmental funding for one higher education institution**

(Source: Ministry of Education of the Russian Federation 2002)

Non-governmental funding is shown in light blue, governmental funding in violet. The exchange rate is approximately 30 Rubles to 1 US dollar.

At the same time, the analysis of governmental and non-governmental financial flows shows that higher education institutions became clearly divided during the last years in those who mainly receive governmental money and those who mainly receive funding from non-budget sources. In the first category, there are for the most part technical and pedagogical universities. In the second category, there are basically state universities, universities for the humanities and universities for economics and administration. This is because specialties from the second category became more popular in the period of the transition to a market economy. About 93% of educational programs in non-state higher education institutions are in the humanities,
sociology and economics. Among students attending private universities 43.4 % study economics, 32.5 % - law, 31.8 % - psychology (Bagautdinova 2003: 81).

Speaking about higher education in Russia, one should also mention that it is characterized by insufficient flexibility, because it provides graduates with excessive theoretical knowledge which is not applicable in practice. After graduation from a higher education institution, many young people cannot find a job and have to bear additional costs in terms of time and money for retraining. At the same time, there is a lack of specialists in many spheres of the Russian national economy. Many specialists do not work in their area of specialization. Therefore, doubts arise about the effectiveness of the investments in human capital in the higher education sector.

It is also important to mention the imperfection of the legal system which negatively affects the effectiveness of administration, causes lack of clear distribution of powers and responsibilities between federal, regional, and municipal administrative organs in the education system, and leads to a lack of observance of state guarantees in education sector. At present, there are no effective control mechanisms for execution of legislative regulations in education. Also the present funding mechanism of higher education is ineffective, because its main principles are only declared in the legislation, but not put into practice.

3.2.2 Problems of access to higher education

The growth of the number of students presented in the previous section might lead to the conclusion that access to higher education in Russia has been promoted in the last years. However, the massification of higher education in Russia has lead to its devaluation. The structure of demand for educational services has been deformed since the motivation of getting higher education (no matter what) as an evidence of a certain social status has become very widespread.

Thus, the common understanding of accessibility of higher education as a possibility to get admission to a higher education institution and to study there is not sufficient, since in reality it becomes more and more important which university a student has attended. One can say that in the Russian higher education system there have been formed two subsystems: mass higher
education and high quality education. Mass higher education is accessible for most of the population in Russia. This kind of higher education is often characterized by low quality of teaching and inconsistency between educational programs and labor market requirements. High quality education is provided by elite universities or prestigious programs at ordinary universities. Receiving high quality education has become very difficult for many Russians in the 1990s. According to All-Russian Public Opinion Research Center (2003), 40-50 % of the population believe that higher education as such is not inaccessible, but that high quality education is (Shishkin 2003).

Research done by the Independent Institute for Social Policy (2003) shows that the most important factor which influences the likelihood of admission to a higher education institution is the social capital of the family (kindred relations, corporative connections, status of parents). This factor is followed by the income of the family (growth of paid education was presented in item 3.2.1) and permanent residence. For inhabitants of big cities higher education is two times more accessible than for inhabitants of rural areas.

In addition to tuition fee proper, Russian families spend substantial means to get over the barrier between school and university, since there is a significant gap between highly demanding university entrance examinations and the insufficient levels of knowledge that school graduates possess. Sometimes, professors at universities deliberately increase this gap by raising requirements of the institution. It means that secondary school graduates need additional preparation to gain admission to higher education institutions. This gap has created a new branch in education: tutoring of prospective students and paid preparatory courses at universities. According to sociological research data, in 2001 people spent almost 45 billion rubles on this purpose (including bribes for entering a university). The biggest disparities between requirements of the institutions and secondary school programs are at universities in Moscow and St. Petersburg. There, 62 % of school leavers said that knowledge provided by secondary school was not sufficient for admission to the higher education institution. In the provinces, 38 % of school leavers gave such answer (Shishkin 2003). One can speculate that the gap is higher there where school leavers (or rather their parents) have the financial means to overcome it.

In these conditions, it was decided to start the GIFO experiment, which main goals are (as considered by its authors) to improve efficiency in the use of financial budget resources in
education, to develop competition between universities for excellent students, and to stimulate increase of quality of higher education.

### 3.3 Authorities involved in the experiment

On January 14, 2002, the Government of the Russian Federation accepted a resolution No 6 “About Experiment on Transition of Several Higher Education Institutions to Financing by Using State Personified Financial Certificates” 2, which regulates the course of the voucher experiment. The order No 440 of the Ministry of Education makes the State University-Higher School of Economics and the Financial Academy of the Russian Government responsible for all questions regarding standards and methods of the experiment.

Originally, the idea of vouchers for Russian higher education was born in the Center for Strategic Research in 2000. This organization was established in 1999 and since then has been involved in developing and implementing the majority of reforms in the socio-economic sphere. In so doing, the Center has been engaged in the development of specific actions and the establishment of the required legal groundwork to bring the reforms to effect.

The GIFO experiment started when Vladimir Filippov was Minister of Education (in the years 1998-2004). Previously, he had been rector of the prestigious Peoples Friendship University of Russia. His appointment as a Minister of Education was suggested by the rector who wanted to substitute the former Minister of Education Alexander Tikhonov – the supporter of the market-oriented reforms in higher education. Thus, rectors thought of Filippov that he would promote their interests in the higher education sector. “Having become Minister of Education, however, Filippov built a new system of relations in the state structures and stepped aside from the conservative rectors. Having entirely got into the role of a reformer, he represented the interests of the state in the branch and not the interests of the branch in the state”, according to the newspaper “Segodnja” (2000: N 272). The Union of Rectors initially was considered to be the main opponent to the government’s plans, since the Union was the major force that stopped similar Tikhonov’s reform in 1997-1998. Indeed, the Council of the Union of Rectors criticised the proposed reform in the Address to President Putin, a petition published 22nd of September

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2 This policy document and other documents describing the principles of the GIFO system can be found at the website http://inf.hse.ru/gifo/ belonging to the Higher School of Economics.
However, the rectors later changed their stance towards the reform. Victor Sadovnichij, rector of Moscow State University and the leader of the Union, declared that the Union agreed with the main proposals of the government under the condition that the opinions of higher education institutions would be taken into consideration when implementing the reform.

The Higher School of Economics was established in 1992 at the initiative of Russian economists (Yasin, Kouzminov) and members of the Russian Government (Gaidar, Shokhin, and others) with the purpose to assist economic reforms in Russia by educating professionals in modern economics and other social sciences, as well as through academic research, consultancy and policy advice in these fields. Under the direction of its rector J. Kouzminov, the Higher School of Economics has become the most influential analytical center of the country within a very short period of time. Rector of the Higher School of Economics J. Kouzminov is the main author of the ideas behind the economic reform of Russian education. Kouzminov and his associates have many opponents blaming them for marketization and privatization of education in Russia.

The Financial Academy of the Russian Government along with the Higher School of Economics is the intellectual headquarters of the educational reform in Russia (Segodnja 2000: N 272). The Financial Academy is one of the leading economic higher education institutions in the country. This institution produces the financial elite of Russia: its graduates hold high posts in financial and banking spheres. Six ministers of finance were graduates of the Academy at different points of time. Professors of the Academy develop expert-analytical materials on the instructions of federal legislative and executive authorities, and are members of advisory councils in several committees in the State Duma. Its rector A. Grjaznova is responsible for an estimation of the value of educational vouchers.

3.4 Regions involved in the experiment

3.4.1 Administrative levels in Russia

The description of regions involved in the GIFO experiment asks for an explanation of the administrative levels in Russia. In accordance with the Order of President Putin from May 13th,
2000, the Russian Federation is divided in 7 Federal Okrugs. The lower order civil divisions are organized in two parallel tiers, one based on nationality (Autonomous Republics), and the other on essentially economic criteria (Autonomous Oblasts). These lower order civil divisions (Republics and Oblasts) will often be referred to as regions in this study. Russia consists of 89 regions.

3.4.2 Characteristic of the regions involved in the experiment

The GIFO experiment is tightly connected with an experiment on the Standardized State Examination. The latter first took place in the summer of 2001 in 5 Russian regions and involved 30 000 school-leavers. In the subsequent years the wave of the experiment occupied more and more territories: in 2002 - 16 regions, in 2003 – 47 regions, and in 2004 – 65 regions, which involved 68.3 % of school-leavers in the country. It has been planned that in 2005, there will be 78 regions-members of the experiment (Uchitelskaja Gazeta 16.11.2004). The scale of the GIFO experiment is not so large. In the years 2002-2004, it involved 6 universities from 3 Russian regions: Mari and Chuvash Republics in Privolzhsky Federal Okrug, Republic Sakha (Yakutia) in Far East Federal Okrug.

With respect to the higher education sector, the socio-economic infrastructure of a region serves as an environment which contains factors important for the development of this sector. Russian regions certainly differ concerning their economic situation and these regional differences influence the condition of higher education. While comparing parts of the Privolzhsky Federal Okrug regarding socio-economical conditions and indicators of the functioning of the higher education system, Baghautdinova (2003: 39) distinguishes 3 types of regions:

1) Those with potentially rather good conditions of socio-economical development and resources suitable for successful work of education system development programs.

2) Regions with unfavorable conditions of socio-economical development where reforms either gave no essential results or caused considerable decline in living standards. The main problem in the functioning and development of higher education in these regions is a lack of governmental financing and an absence of other financial sources.
3) Potentially safe regions, possessing some resources for further development of the higher education system.

Mari and Chuvash Republics belong to the 2\textsuperscript{nd} group of this classification. For example, the proportion of the population whose income is lower than minimum living standards is 67.2\% in Mari Republic and 62.9\% in Chuvash Republic. If we compare this with the same indicators in the neighboring regions we can observe that in Tatarstan only 23.7\% of the population has an income lower than the living minimum, in the Orenburg region 35.5\%, and in the Saratov region 40.3\%.

Data about the income of the population can explain the number of students in non-state higher education institutions. In the year 2000, there were ca. 2200 students in private institutions in Mari Republic, in Chuvash Republic it was ca. 1100 students. At the same time, the amount of students in private institutions in Tatarstan was ca. 14100. These data explicitly show that the number of students in non-state institutions (where they have to pay for their education) is bigger in the regions where the population in average has a higher income.

Mari and Chuvash republics are marked with low level of expenditures on information and communication technologies (ICT). According to year 2000 data, Mari El spent 32 605 500 rubles on ICT, Chuvash republic 53 042 600 rubles. This compares very unfavorably with the other mentioned regions’ spending on ICT: Tatarstan 320 512 300 rubles, the Orenburg region 124 606 300, and the Saratov region – 189 004 000.

The number of PhDs is an important indicator to determine the level of scientific potential of a region. Also on this indicator we can see an important difference between the regions. The number of PhDs was 2.8\% of the total number of graduates in Mari El and 2.2\% in Chuvashia, compared with Tatarstan 5.3\%, the Orenburg region 3.5\%, and the Saratov region 5.9\%.

There are no such data from the Republic Sakha (Yakutia). But to describe the region, we can say that it belongs to the most well-being regions in Russia. The main economic achievements of the region are provided with output of diamonds, gold oil, gas, timber and other natural resources. It is the largest region in Russia, situated far from the center of the country.
3.5 Universities involved in the experiment

The following institutions are involved in the GIFO experiment:

- Mari State Technical University. Includes 10 faculties, in 2003 it enrolled 11 099 students.
- Mari State University. Includes 10 faculties, in 2003 it enrolled 9 358 students.
- Mari State Pedagogical University. In 2003 it enrolled 4 436 students.
- Chuvash State University. Includes 23 faculties, in 2003 it enrolled 20 765 students.
- Chuvash State Pedagogical University. Includes 12 faculties, in 2003 it enrolled 7 704 students.
- Yakutia State University. In 2003 it enrolled 19 380 students.

In chapter 5 more information on the case institutions will be presented.

3.6 The GIFO experiment

3.6.1 The Standardized State Examination’s role in the GIFO experiment

According to the terms of the experiment the present system of final school and entering university exams is abolished. Instead, schoolchildren pass only the Standardized State Examination, which is known in Russian by the abbreviation EGE (Ediniy Gosudarstvennyi Ekzamen). The experiment to replace final school and entering university exams with the Standardized State Examination is an attempt to measure objectively the knowledge of secondary school graduates, and to reduce the excessive psychological and financial burden from prospective students and their families.

The Standardized State Examination consists of a set of written exams. School-leavers have to take five exams: two obligatory (Russian/Literature and Mathematics) and three depend on a school-leaver’s choice (usually, this choice would depend on the choice of further studies and future profession). Tests for this examination are produced centrally by the Ministry of Education of the Russian Federation and are of the same type for all regions of the country which take part in the experiment. The exam in each subject consists of three parts: A, B, and
C. The first two parts are in the form of a test where students have to choose the correct answer out of a number of suggested answers (multiple choice). In part C, the school-leavers have to solve different tasks and problems, or give a detailed answer. The results of the examination are assessed by using a unified scale. These results can be sent to a number of higher education institutions by student’s choice. This makes it unnecessary for a student to attend entrance examinations at universities.

In the traditional system, each school organized its own final examinations. It is argued that the old system created a subjective nature of the assessment, since by evaluating their graduates the schools would evaluate themselves. According to the proponents of the Standardized State Examination, the new system will provide an objective form of evaluating school-leavers, which will ensure the obtaining of true to life data. These data can be compared in a more meaningful way than what was possible under the old system. Besides, it will eliminate corruption in the higher education sector which, in its turn, will level off opportunities for students from different socio-economic and territorial groups. As stated by President Putin, “the essence of this examination is to provide an opportunity for a young person living in the most remote village to enter any prestigious higher education institution if he or she deserves it without leaving his or her home”. The seemingly banal point made by the president about traveling to famous institutions to pass entrance exams is in fact very important. With the current standard of living in a typical Russian province, it is a very heavy financial burden to go to Moscow or St Petersburg and stay there for some weeks just to take entrance exams. The opponents of the proposed reform believe that the Standardized State Examination will only reduce the scale of the shadow market of education services, but will not extirpate it, because school teachers still can be hired as tutors in order to prepare graduates for this exam.

To ensure objectivity of evaluation and avoid corruption the following measures are taken:

1) Examinations are conducted outside schools, from which children are graduating, and outside higher education institutions.

2) Examinations are organized by regional committees which include public observers. As public observers can be accredited members of parents’ committees of the regional education institutions, members of boards of trustees of the regional education institutions, members of the regional public organizations and associations, members of the local administration, personnel of education institutions from other regions, and representatives from the media.
3) The persons mentioned above can not perform as public observers at examinations where their relatives are being examined.

4) Members of board of trustees, members of parents’ committees and personnel of a school can not be admitted as public observers to the place where graduates from this school are being examined.

5) Standardized State Examination can only be organized by teachers in subjects other than the examination subject. For instance, an examination in mathematics should be organized by teachers in humanities, but not mathematics.

6) After an examination is finished, parts A and B of each exam are sent to the Testing Centre by the Ministry of Education of the Russian Federation in Moscow, where they are evaluated by using special computer programs. Part C is evaluated by the specialists of the regional Testing Centre within two days, and the results are sent to the Testing Centre in Moscow to be combined with the evaluation results of parts A and B.

In the GIFO experiment, schoolchildren receive one of five categories of GIFO according to the examination results. These results are estimated according to a 100-point scale. The first category is the highest; it corresponds to the best results of the exam. Next 2\textsuperscript{nd}, 3\textsuperscript{rd}, 4\textsuperscript{th}, 5th categories go by decrease. In the period of the experiment the following correspondence was determined between the financial obligations and number of points a school-leaver gets at the SSE:

1. category 81 – 100 points
2. category 69 – 80 points
3. category 53 – 68 points
4. category 44 – 52 points
5. category 36 – 43 points

If a school-leaver is not satisfied with the results of the Standardized State Examination he (or she) can retake the Examination for free next year and receive the new GIFO which would correspond to the new points a school-leaver would get.

The examination for those who did not take the Standardized State Examination (school-leavers of the previous years, school-leavers from the regions of the Russian Federation which do not take part in the experiment on the Standardized State Examination) is organized by the
state examining board. These students then also have to pass the Standardized State Examination.

3.6.2 The main principles of the GIFO experiment

GIFO means an obligation of the state to finance the course of study of a school-leaver in a university. Every academic year the value of the financial obligations is determined for every category of students by the Ministry of Education of the Russian Federation. In the academic year 2002-2003 they determined the following financial value for each category:

1. category 14 500 rubles
2. category 7 500 rubles
3. category 3 900 rubles
4. category 2 800 rubles
5. category 1 200 rubles

Higher education institutions are allowed to set their own prices for each educational program and form of education. Each higher education institution which takes part in the voucher experiment determines and declares prices for each specialty, educational program, and form of education no later than 3 months prior to the start of application for admission to this higher education institution.

Students who have received GIFO of the 1st category study for free, no matter what price is determined by the institution. These students do not pay the difference between the financial value of GIFO and the price set by the institution. Students who have received GIFO of 2nd, 3rd, 4th, and 5th categories have to pay the difference between the financial value of GIFO and the price set by the institution. As was mentioned above, the value of GIFO depends only on the results of Standardized State Examination and does not depend on the students’ achievements during their study at the higher education institution.

If a student who has started to attend one educational program wants to move to another one, he (or she) has to pay the difference between the value of his (her) GIFO and the price of the newly chosen program, if the cost of this program is higher than the cost of the previous
program. The same goes for changing institutions, if both of them are involved in the experiment. An exception is made for students who have GIFO of 1st category and for students who have privileges for admission to higher education institutions (children-orphans, children-invalids, people who took part in military operations, persons who are under 20 having solely an invalid parent). If a student moves from an institution which does not take part in the experiment to an institution using vouchers, he (or she) can study at the latter institution on conditions laid down by this institution for students who have GIFO of 3rd category.

The law of the Russian Federation On Education stipulates that no less than 170 students for each 10 000 of the inhabitants in Russia should study for free, i.e. funded by the government. In the GIFO experiment, this norm is specified as a requirement for each higher education institution to educate at the expense of state financing no less than 50% of students admitted to the institution each year, and no less than 25% of students by each specialty. This means that not only students with the GIFO of 1st category but also some students with the GIFO of 2nd and even 3rd category can study for free, at the expense of state financing, especially if the institution does not have many applicants with the GIFO of the highest category (figure 3.3).

Fig. 3.3 Minimal share of students who study for free, at the expense of means distributed through GIFO, as part of the total admission to each institution
(Source: Zaborovskaja 2003)

Horizontal axis = admission. Vertical axis = price of study in 1000 rubles
Text left of 50% - axis: “No student pays”. Text right of 50% - axis: “Student pays”
The fact that the value of financial obligations is determined every academic year needs more detailed explanation. In the following example all figures are chosen at random. For instance, in the year 2002 the value of the GIFO of 1st category was 12 500 rubles, in the year 2003 – 13 000 rubles, and in the year 2004 – 16 000 rubles. Then, an institution receives in sum 41 500 rubles for education of one student during 3 years (bachelor level).

On September 19, 1995, the Government of the Russian Federation accepted a resolution N 942 “About contractual education of students having a special purpose”. The main goal of this measure was to satisfy the publicly financed organizations’ needs for specialists with higher education. This became especially important after the abolishing of the job assignment system where graduates were assigned to different posts and jobs according to the centralized plan of the government. According to the resolution N 942, a student who was (voluntarily) sent by such an organization to a higher education institution had to sign a contract according to which he (or she) was obliged to work for this organization for three years after graduation from a higher education institution. The number of study places for contractual education was determined by the institution. Such students had to take the same entrance examinations as other students but competition for them was organized separately.

An important difference between this separate competition and the ordinary admission procedure, was that for such potential students it would often be enough simply to pass the entrance exams. When the voucher experiment started, these students were credited with the GIFO of second category, regardless of their exam results. Institutions taking part in the voucher experiment admitted an increased number of such contractual students, because of the financial incentive represented by the GIFO of second category. This seriously strained the budget of educational authorities. In 2003 the authorities realized this problem, and from then on all students receive GIFO according to their exam results. In other words, the arrangement was dismantled. This will be described in more detail in item 4.2.

GIFO means are paid during the whole course of study, determined by state standards, only if a student enters a university after passing the Standardized State examination. GIFO does not regulate the whole governmental financing, but only approximately 50 % of the means that go to higher education (including teachers’ salaries). Universities also get means on equipment renovation, purchasing computers, library funds enrichment, capital repairs of university
buildings and payment of public utilities. It has been planned that in the future more public funds will be allocated by using GIFO.

### 3.6.3 Unofficial aims of the GIFO reform?

In the first chapter, the official version of the goals and content of the GIFO reform is described: equity, efficiency, competition and quality. In the newspaper “Gazeta.ru” (15.04.2004), the following description is given about the GIFO reform in Russia:

“Already in 1999, it was given as a task to the Center for Strategic Development to calculate if it would be possible to optimize federal budget expenditures for education. That is why economists appeared among the reformers of education, and all the further reforms went on under their influence. Since the main budget expenditures for education are used for maintenance and running of higher education institutions, it was decided by the Center for Strategic Development to close down some of them. The question was, on what basis should some institutions be closed and some not? In the beginning, there were attempts to solve the problem by using administrative approaches to reform. These attempts failed because they met strong objection from rectors. Then, administrative approaches were substituted by market-oriented approach. The GIFO principle was invented to distinguish the “good” higher education institutions from the “bad” ones. In that way, prestigious universities would flourish, and unpopular ones would disappear. This time the problem was on what basis should vouchers be distributed? There was an urgent need for a system of objective evaluation of the academic level of school leavers. In this way the idea of the Standardized State Examination was born.”

I will not take a stance as to whether this description is correct. It is not inconsistent with the official version, but definitely has a different tone. Since much about the GIFO reform is not publicly known, for instance why the construction of the GIFO categories is as it is, the whole topic is subject to speculation in the media.
3.7 Assumptions about the effects of the GIFO experiment based on theory

I will state some assumptions which will be the starting point for the empirical study as a link between the theory chapter and the presentation of the GIFO reform:

1. The introduction of GIFO as compared to the old system will increase the responsiveness of higher education institutions, and thus increase both the productivity and the quality of education.
2. The GIFO system will move resources away from study programmes which do not generate net income for the institutions, except from those study programmes given special priority within the GIFO system.
3. The distribution of state funding for students will tend to be more concentrated on persons with academically skilled parents. Compared to the current situation in Russia concerning access to higher education, the equity effect of this is not obvious, but will probably increase the level of inequality. On the other hand, it may be argued that clever students from poor backgrounds will get a better chance than previously, and that the less talented rich ones will be among the losers.
4. If the institutions demand additional funding from the students (those with GIFO of second category or less), which they are quite likely to do, the level of equity will be significantly reduced.
5. By introducing a stricter selection of the skilled students, it may be expected that both the proportion passing exams will increase, that their results will generally be better, and that the candidates will fit better to the needs of future employers. One might assume that the differentiation between GIFO categories motivates students to work harder already within secondary education, and also that the whole learning milieu at campus will be improved through competitiveness in the selection.
6. It seems likely that institutions will become less inclined to introduce new topics or perspectives, and that the incentives to present local results in a too positive way or to be lenient with examination and determining characters will be hard to resist, undermining the first assumption.
7. The GIFO reform will increase the administrative costs at each institution by creating an increased need for measuring all types of costs, creating internal incentive structures
at the institutions, internal and external reporting systems, and information services to the potential students.

The implementation of a reform like GIFO can only succeed on its own terms if the relevant authorities provide good information to the students, secure fairness in competition between institutions and eliminate corruption in the phase of allocating SSE points.

3.8 Summary

A decrease in public expenditure on education in general and higher education specifically happened simultaneously with growing demand for higher education. This resulted in the introduction of paid education and flourishing of corruption in state institutions, and the growth of the private sector, which made access to higher education problematic for the majority of the population in the country. As a solution to the problem, liberal economists proposed a system of merit-based vouchers, where parts of the costs are born by students and parts by the state. Since vouchers are merit-based, a system of independent evaluation was introduced – the Standardized State Examination. To see how the reform would work in practice, three regions of Russia were chosen to take part in the experiment.
Chapter 4 Changing conditions of the GIFO experiment

4.1 Introduction

Higher education institutions are organisations with strong self preserving abilities. When external forces change their living conditions, the institutions will try to adapt. Adaptation may take many forms, one of which is simulating loyalty to new external policy signals, while internally working to keep old traditions intact as much as possible. New reforms imposed from outside will naturally meet resistance in almost any kind of organization, and there is some experience showing this not least to be the case among higher education staff. Another kind of adaptation is to try to keep the previous level of activities by extracting funding from students’ own pockets. As will be shown in this chapter, some aspects of the GIFO reform puts institutions under pressure, and this produces responses from the institutions when it comes to prices and management of admission.

4.2 Reasons for changes

The results of the experiment of the academic year 2002-2003 revealed that not all the aims of the experiment were achieved. According to the aims, governmental funding should only be redistributed among institutions. However, the experiment show a considerable increase (by more than one third) of the amount of all the involved universities’ financing by state personified financial obligations, in comparison with the amount of funds which might have been given to them in accordance with the traditional procedure. This was related to several reasons. The main reason mentioned by the authors of the experiment is “lack of sufficient and reliable information about the Standardized State Examination results”, “imperfection of the centralized testing system”, and “informality of the Standardized State Examination”. In the following these factors will be explained.

Before SSE the authors of test tasks approximately determined how school-children had to cope with tasks of the tests offered. The authors of tests were guided by the ability of the majority of children to accomplish all simple and reasonably difficult test tasks. This rule being kept, the average point of SSE in a large group of school-children must be equal to 50. If the
average point is about 29-30, it means that the tasks were too difficult for most of the children. If the average point shifts closer to 60-70 points, one may assume that the tasks are too simple. Thus, before the SSE-GIFO experiment of 2002 the test authors had determined (by locally carrying out the tasks in Russian testing centers and experimental schools) the percentage of school-children who would be able to accomplish this or that SSE task. The experts, reasoning from hypothetic but science-based data, calculated that 1.5-2 % of graduates would get GIFO of the 1st category (“Pervoe sentjabrja” 7.06.2003, N 40).

However, from the very beginning of the GIFO experiment in Chuvashia and Mari Republic (less in Yakutia) the statistical deviation of SSE results was mapped: the number of excellent pupils was so high that this deviation was focused on in the report on the course of the experiment, made by the experts of State University-Higher School of Economics and the Ministry of Education. Nearly 8 % of first-year students got GIFO of 1st category; the 2nd was given to 38 %. In that way, the two highest GIFO categories were distributed to 46 % of the first-year students, i.e. the forecast of the percentage of students having obtained GIFO categories with high financing, proved to be far too low. This fact resulted in a considerable growth of budget allocation to the universities involved in the experiment.

![Fig. 4.1 Average distribution of first-year students in the republics according to GIFO categories in 2002](Source: Klyachko, Zaborovskaja, Korolev 2002)

“без кат” means students who do not receive GIFO. Such students were mainly admitted in Yakutia. In Mari El and Chuvashia such cases were exceptional.
At the same time, according to the newspaper “Pervoe sentjabrja” (7.06.2003, N 40), it is enough to take the statistics of the winners of All-Russian school competitions and of the participants of international school competitions for several years to make sure clearly that Chuvashia and Mari Republic, not brilliant in an academic sense among other Russian regions, could not educate such a considerable group of gifted university entrants. It is necessary to explain what is meant by imperfection of the Standardized State Examination in the official returns of the Ministry of Education of the Russian Federation. Based on information from the media and interviews with the representatives of the universities and the members of Mari Republic testing centre, it can be assumed that high SSE points, given to a great number of school-leavers, can be explained by the following factors:

1) **Corruption during Standardized State Examination**, especially in rural areas, where there were not enough independent representatives of the public organizations and inspectors from other regions which saw to SSE. According to the Minister of Education and Science of the republic Kabardino-Balkaria A. Shogenov “the weakest link in the technological chain of the SSE is a person. A lot depends on the qualifications and the sense of responsibilities of the specialists who is organizing the SSE, on their ability to resist to outside pressure. Dependent specialists can not provide independent, i.e. objective organizing of testing procedures.” To solve the problem in this republic, the exchange of groups of SSE organizers between municipal educational systems was organized and the number of representatives from the state examining board at examinations was increased where possible. In Shogenov’s opinion, “such measure helped (though only partly) to protect the organizers from possible influence of their direct superiors and students’ parents.” (Uchitelskaja Gazeta 16.11.2004, N 46). A similar point of view was expressed by the members of Mari testing centre who ironically said that “Mari Republic is a small region where people know each other. Therefore, to make the Standardized State Examination independent and objective, school-leavers should be brought for an examination not just to another school, but to another region of Russia.” (The source for the latter citation is a personal communication obtained during my field work.)

The degree of violation of regulations during SSE can be illustrated by what happened in Republic Mordovia in 2004. This case was described in several newspapers, including “Sovetskaja Rossia” (19.08.2004) and “Pervoe sentjabrja” (N 44, 2004). In
Republic Mordovia, the minister of education Kadakin said to the inspectors, which were sent there from other regions on the instruction of the Testing Centre by the Ministry of Education of the Russian Federation, that they were not allowed to be present in the class-rooms in order not to traumatize school-leavers and not to make them nervous. Inspectors were offered to conduct the inspection from the corridors. This infringes the rules of conducting SSE. After telephone conversation with the Testing Centre in Moscow, inspectors were allowed to visit class-rooms in the places of examination of inspectors’ choice and registered many cases of broken rules. For instance, school-leavers used mobile phones, teachers helped school-leavers with solving tasks. Since this was an examination in mathematics, teachers in humanities had to perform as organizers according to regulations. However, inspectors found out that teachers in physics were present as organizers at the SSE. After the examination, the representatives of the Ministry of Education of the Republic Mordovia had to present (on the request of inspectors) lists of people who were supposed to organize the SSE in mathematics. Of course, teachers in physics and mathematics were not on the list. Inspectors suggested regarding the SSE results in this place of examination as not valid.

The same goes not only for organizing and conducting of examinations but also for the process of evaluation. As was mentioned above (item 3.6.1), part C (the most difficult one) of each test is evaluated by the specialists of the regional Testing Centre. Even the main author of the proposed reform, rector of Higher School of Economics Kuzminov (who always promoted the idea of objective evaluation), had to admit that “evaluation of tests in the regions is simply a scandal. We have even sent an official letter regarding this fact to the Minister Filippov. Every region wants to make the best impression by having the highest SSE results. Local evaluation really leads to overstating of the results and favors corruption”, according to Kuzminov in an interview to the newspaper “Kommersant” (9.04.2004, N 64).

2) Undoubted overstating of the results is mostly caused by the fact that in the first years of carrying out SSE there were no standard tests worked out in Moscow in such disciplines as national and foreign languages, and also not in Russian and national literature. The exams in these disciplines were conducted in regional SSE boards on the basis of control materials worked out independently in the regions. Probably old habits
were decisive in the making of tests. The regions may also have been opting for nice exam statistics by making easy tests.

3) Many school-leavers appealed against the SSE results. According to the data given by Mari testing centre, hundreds appealed against the results, whereas in other regions, where the experiment took place only at SSE (but not GIFO), there were only dozens of appeals. During the first year of the SSE-GIFO experiment most of the appeals were allowed. Correspondingly, SSE points and GIFO categories of the graduates who had appealed became higher. Later, the requirements to SSE results revision because of appeals toughened. (Source: personal communication.)

Another reason which can explain such a high number of school-leavers with good SSE results is taking private classes by tutors and attending paid preparatory courses for Standardized State Examination.

A considerable exceeding of the planned amount of financing was related to GIFO of 2nd category given to university entrants having a special purpose. As was mentioned before (item 3.6.2), according to “The order of category calculation and execution of registration which proves GIFO category”, confirmed by The Ministry of Education of the Russian Federation, privilege entrants (orphans, invalids, etc) and persons having a special purpose got GIFO of 2nd category. This fact considerably increased the number of first-year students having GIFO of 2nd category, and decreased the number of first-year students having GIFO of 3rd, 4th, and 5th categories, for in that case the entrants who had lower category according to SSE got GIFO of 2nd category anyway.

Besides, the universities involved in the experiment made use of one main condition of the experiment – lack of planned figures of the admission worked out by the Ministry of Education of the Russian Federation, and exceeded considerably (in some universities nearly twice as much) the plan of special purpose admission made in the pre-experiment year (see table 4.1 on the next page).

The factors described above all together resulted in the growth of budget allocations.
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<thead>
<tr>
<th>Higher education institutions - members of GIFO experiment</th>
<th>2001</th>
<th>2002</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Admitted students, all together</td>
<td>Students admitted for special purposes</td>
</tr>
<tr>
<td>Mari State Technical University</td>
<td>2927</td>
<td>676</td>
</tr>
<tr>
<td>Mari State Pedagogical University</td>
<td>2154</td>
<td>112</td>
</tr>
<tr>
<td>Mari State Pedagogical University</td>
<td>1072</td>
<td>166</td>
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<tr>
<td>Chuvash State University</td>
<td>4653</td>
<td>55</td>
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<tr>
<td>Chuvash State Pedagogical University</td>
<td>2183</td>
<td>370</td>
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<tr>
<td>Yakutia State University</td>
<td>3532</td>
<td>148</td>
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<td>All together</td>
<td>16521</td>
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**Table 4.1 Special purpose admission in higher education institutions – members of GIFO experiment**

(Source: Bobkov, Kazarinov, Oshchepkov, Pozdeev 2004: 29)

The official analysis of the results in 2002-2003 years, published by the Ministry of Education of the Russian Federation and Higher School of Economics, illustrates that the main amount of financing is funds needed for discharge of obligations of GIFO of 2nd category (49 %). A fifth of all funds are spent on discharge of the 1st GIFO category. In that way, the rate of the first two categories makes up 69 % of the funds, the first three – 95 %. This result is connected with a large quota of first-year students having these GIFO categories, as well as with high financial provision of the pointed categories. Correspondingly, by the results of the first experimental year the source of non-governmental funds are the students having GIFO categories lower than 3rd (see Figure 4.2).
Fig. 4.2 Division of sum total of governmental funds, provided for discharging liabilities of GIFO categories
(Source: Klyachko, Zaborovskaja, Korolev 2002)

Table 4.1 also shows that almost every institution has reduced the number of total admission in 2002 as compared to 2001, “guided by the economic criteria of the experiment” as explained in the official returns. This wording needs more detailed explanation. Before the experiment started, the number of places where students do not pay was determined individually for each higher education institution by the Ministry of Education. In addition to this predetermined number of students who study for free, institutions were allowed to admit students on a fee basis. In the experiment however, 50% of students in each institution should study at the expense of the state. The more students will be admitted in total, the more will study at the expense of the state, including students with GIFO of 3rd category. Then, for educating one student with GIFO of 3rd category, institution will receive very little money from the public budget. Thus, institutions are not interested in having such students among those 50% who do not pay for their education. Such an explanation was confirmed in the personal communication obtained during the field work: “It is better for an institution not to admit students with GIFO of 3rd category to places funded from the state budget. They are unprofitable.” As a result, the sum of admission to free of charge places in all six institutions combined fell by 8% as compared to the previous system when the number of free of charge places was determined by the Ministry of Education.

3 The term “free of charge places” will be used as a label for this.
4.3 Changed conditions of carrying out the experiment

As a result, the Ministry of Education changed the conditions of carrying out the experiment in 2003-2004 years:

- The financial provision of the GIFO categories was reduced and the following financial value for every category was determined:

  1. category 12 500 rubles
  2. category  7 200 rubles
  3. category  3 000 rubles
  4. category  2 000 rubles
  5. category   700 rubles

- The privilege for the entrants having a special purpose was called off. Since 2003 they enter universities on common ground, i.e. these persons do not get the 2nd GIFO category, but the category corresponding to the results of SSE.

- Higher GIFO rates are allocated to students of such professions which are most significant for socio-economic development of regions, but still not popular among the students. This measure was taken to recruit students to prioritized studies, not considering the needs of publicly financed organizations in particular, but rather the needs of the region as such. In accordance with the Order of the Ministry of Education of the Russian Federation No 2376 from June 3rd, 2003, executive power organs in regions of Russia together with universities involved in the experiment should draft a list of specialties which are the most important for socio-economical development of the regions and are not very popular among the students. These specialties are provided with increased GIFO financing.

  1. category 17 500 rubles
  2. category 12 200 rubles
  3. category  8 000 rubles
  4. category  2 000 rubles
  5. category   700 rubles
The Ministry of Education believes that this measure will contribute to growing interest of institutions in improving education for these specialties and attracting the best students. The total number of students with the increased GIFO financing should not exceed 300 for each region of Russian Federation. The increased financing of GIFO of 1\textsuperscript{st}, 2\textsuperscript{nd}, and 3\textsuperscript{rd} categories is not retained if a student who has started to study one of these specialties wants to move to another program which is not included in the list of the most important specialties.

The results of the first experimental year have shown a serious weakness of the proposed funding mechanism (Markina 2003: 54). The value of each GIFO category is determined before the start of the study year on the basis of two characteristics: the amount of budget means distributed through GIFO and the presumable proportion of students who will get certain GIFO categories. The first characteristic is a constant, but the second can change and differ from the planned number since it is impossible to predict closely the results of the Standardized State Examination and the relative share of different GIFO categories which follow from these results. Consequently, if the number of school-leavers who got the highest GIFO categories exceeds the planned figures, higher education institutions should receive more funding from the state budget. Then, the authorities must find funding sources to cover this over-expenditure. Other governmental means allocated to higher education can be used as such sources, either other means assigned to the same institutions (as it was mentioned before, GIFO does not regulate the whole budget financing, but approximately 50\% of the means that go to institutions taking part in the experiment), or budget means assigned to higher education institutions which do not take part in the experiment. Both cases violate the purity of the experiment and do not lead to the stated aims.

There is also a belief that the financial provision of GIFO in the first year of the experiment was set too high to make it more attractive for universities to take part in the experiment. (Source: personal communication obtained during field work). This is confirmed by the statement in the official return of the Mari State Technical University: "At the first stage of the experiment, these parameters of GIFO were adopted with the purpose of softening the conditions for the universities to join the experiment" (Source: Bobkov, Kazarinov, Oshchepkov, Pozdeev 2004: 28). Mari Republic and Chuvash Republic are regions which are subsidized from the federal budget and were chosen for the GIFO experiment not accidentally, but because they are too dependent on financing from Moscow and could not afford to refuse
it, as richer and more independent regions did. The same happened when the experiment on the Standardized State Examination started. It was very well financed from the federal budget in the beginning. At present, however, the financing of SSE experiment is reduced by two thirds. (Source: personal communication obtained during field work). This opinion contradicts the official statement according to which the pointed regions were chosen for the GIFO experiment just because they were the first who took part in the SSE experiment.

### 4.4 Consequences of the changed conditions of the GIFO experiment

As a result of the changed conditions of the experiment, the share of first-year students who got GIFO of 2nd category in 2003 and 2004 was significantly reduced - by more than 10 %, while the percentage of students who were given GIFO of 3rd category gradually increased.

![Fig. 4.3 Distribution of first-year students according to GIFO categories in 2002-2004](image)

(Source: Ministry of Education of the Russian Federation 2004)

In that way, the difference between the amount of governmental funding distributed through GIFO in 2003 and the amount of funding distributed through traditional funding mechanism to institutions which do not take part in the experiment was reduced. In 2002, institutional members of the GIFO experiment received 184.96 % of public funding as compared to non-
members of the experiment. In 2003, this figure was reduced to 107.84 %. Thus, the requirement of the experiment to redistribute existing budget funds and not to increase budget expenditures was almost fulfilled. At the same time, it led to a reduction of the already low average budget provision through GIFO per student admitted at the full expense of the state (Bobkov, Kazarinov, Oshchepkov, Pozdeev 2004: 70). Decrease of funding is generally explained by reduction of financial provision of the GIFO categories. The cancellation of the privilege for the entrants having a special purpose did not affect the financial results of admission. It was compensated by the higher GIFO rates for the professions which are most significant for the socio-economic development of regions and are not popular among the inhabitants.

Some specialists consider that financial provision of the GIFO categories, having been reduced, became the reason for a rise in fees for higher education in the experimental regions (see figure 4.4). Thus, in Chuvashia and Mari Republic the fees were doubled, and for some professions even tripled. In Yakut State University the prices rose 1.8 times. In 2003 in Mari State University there were the following fees: the disciplines maths, history, philology, and region study course cost 18000 rubles; information science, journalism, world economics and accounting – 20000 rubles, science of law – 24000, theory and methods of teaching foreign languages and cultures – 15000. This very year, in Chuvash State University science of law and dentistry cost 26000 rubles, finance and credit – 23000, nursery – 17000, preservation of the environment – 9000. In the other universities involved in the experiment the situation is the same. If differential fees exist, what factors should determine the difference? (Jongbloed 2000: 24). The list of fees in Mari and Chuvash State Universities given above shows that these fees are not related to real costs for education. The highest fees are charged for prestigious professions.

There is an opinion that the fees for education in the regions mentioned were artificially raised. Since the beginning of the experiment there was a relative economic stability in the country, and the dollar rate against the ruble came down. The regional universities are monopolists in the education markets; this fact explains the increase in fees. They know that school-leavers do not have any choice: very often they do not have enough knowledge for entering Moscow universities, and they are short of money for living there, as Mari and Chuvash republics are poor regions.
Vertical axis: average tuition fee for one study year in rubles.
Horizontal axis: МарГПИ – Mari State Pedagogical University
    МарГТУ – Mari State Technical University
    МарГУ – Mari State University
    ЧГПУ – Chuvash State Pedagogical University
    ЧГУ – Chuvash State University
    ЯГУ – Yakutia State University

On the other hand, such high prices for educational services can be justified by the fact of insufficient funding. For instance, the rector of Moscow State University Sadovnichij said in the interview to the newspaper “Rossijskaja gazeta” (31.03.2004) the following: “My attitude toward GIFO is negative. When calculating the value of GIFO, the budget for higher education is divided by the number of school-leavers who have passed the Standardized State Examination. This results in a certain amount of money. However, the mistake is that calculation of GIFO is based on the fact of state funding of higher education which is financed only 50%. Educating one student in Moscow State University costs not 19000 rubles as it is planned according to the GIFO system, but at least 3000 $ per year (approximately 84000 rubles).”

There is no single answer to the multidimensional problem of fee levels (Jongbloed 2000: 24), especially so in Russia. Many Russian researchers as, for instance, Bagautdinova (2003: 228)
assert that problems of price formation for educational services are the most difficult and the least elaborated in Russian economics, because such a phenomenon as a price for the educational services consumed in fact did not exist for the population of the country. In the Soviet Union, the state represented by the administrative educational organs had the exclusive right to sell and to buy educational services. This factor overshadowed problems of price formation and prevented a development of market relations and real market prices in the education system. That is why even today, in the situation of marketization of higher education, Russian economists do not agree upon the question of what is actually the product of the education system. As a consequence, the price for educational services is also understood in many different ways.

4.5 Criticism and plans for further development of SSE and the GIFO experiment

4.5.1 Criticism towards the SSE

In May 2004, many Russian newspapers published a letter addressed to President Putin and signed by 420 prominent figures in Russian science and education. The letter is called “No to the destructive experiments in education” and contains criticism with respect to the Standardized State Examination. It is criticized from pedagogical and methodological perspectives, which are not so relevant for the topic of this study. Also, a lot of criticism concerns the lack of transparency in the process of conducting the SSE experiment. “There is a lack of clearly defined concept of the SSE. Many results of the experiment are not publicly known, there is a lack of scientific hypotheses and criteria for assessing its results. There were violated the necessary requirements for a pedagogical experiment. Complete reports concerning content and financing of the experiment were not published.” Further, authors of the letter suggest not to extend the scale of the experiment until all the results are made publicly known and discussed among professionals and the general public. They also argue for establishing a commission independent from the Ministry of Education for evaluating reforms in education, and also argue for taking measures which will eradicate possibilities of secretly taking important decisions in the sphere of education. “The concept of state evaluation of quality of education should not be imposed administratively, but should be created as a result
of social and professional consent”, the document concludes. To my knowledge there are no official plans for improving the SSE, except for detail adjustments like better quality of the exam questions. The Ministry of Education dismissed the criticism as emotional and unconstructive.

4.5.2 Criticism and suggestion for development of the GIFO system

On December 22, 2004, a seminar was held in the State University – Higher School of Economics on the results of the GIFO experiment in 2004. Representatives of the Ministry of Education, the Ministry of Economic Development and Commerce, and representatives of institutional members of the experiment participated in the seminar. In the course of the seminar, the Director of the Department of State Policies in the Sphere of Education, Kalina, said that the GIFO experiment will be continued. The system, however, needs improvement. According to him, one of the main shortcomings of the GIFO system is low financial provision of GIFO categories which does not cover expenditures per student. This opinion was shared by the rector of the Financial Academy of the Russian Government, Grjaznova, who is responsible for an estimation of the value of educational vouchers and by the representatives of the institutions.

There were presented suggestions of the Higher School of Economics on the further development of the GIFO experiment. It was suggested to extend the experiment for the years 2005-207, to reduce the number of GIFO categories from five to three, and to introduce the GIFO of highest category, which will be given to the winners of All-Russian school competitions and to the participants of international school competitions. Also, there was a suggestion to change the correspondence between the financial obligations and number of points a school-leaver gets at the SSE:

<table>
<thead>
<tr>
<th>Current system</th>
<th>Proposals for change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. category  81 – 100 points</td>
<td>1. category  81 - 100 points</td>
</tr>
<tr>
<td>2. category  69 – 80 points</td>
<td>2. category  66 – 80 points</td>
</tr>
<tr>
<td>3. category  53 – 68 points</td>
<td>3. category  50 – 65 points</td>
</tr>
<tr>
<td>4. category  44 – 52 points</td>
<td></td>
</tr>
</tbody>
</table>
5. category  36 – 43 points

Besides, it was planned to allocate a bigger share of public funds by using GIFO. Another proposal was to introduce a system of raising factors of the GIFO value for specialties which have objectively higher delivery costs, as for instance medicine.

Finally, it was suggested to abolish the 50 % restriction for admission to free of charge study places and to return to the system where the number of free of charge places will be determined by the Ministry of Education for each institution.

4.6 Summary

The imperfection of the Standardized State Examination led to overstating of the exam results. This fact, and GIFO of 2nd category given to university entrants having a special purpose led to a considerable increase of the amount of universities’ financing by GIFO instead of its redistribution, which was actually the requirement of the experiment. As a result, the Ministry of Education reduced the financial provision of the GIFO categories. This resulted in a rise in fees for higher education in the experimental regions. The lack of cost coverage for the institutions has led policy makers to suggest a reduction in the number of GIFO categories, a change in threshold values of SSE points and a differentiation of financing according to the type of study.
Chapter 5 Case study

5.1 Introduction

In this chapter I will mainly present data collected during my field work in Mari Republic, January 2005. I visited three institutions, and got very different amounts of data from them. None of them gave anything near a complete set of data as compared to my needs, but to some extent, the data were complementary to each other. With this fact in mind, I find it most meaningful to deal with the data as if the whole Mari Republic was one case. Still, the main emphasis will lie on Mari State Technical University, since I got more data at that institution than at others. In addition, I find it necessary to draw upon some nationwide data to make comparisons. Because the phenomenon of study vouchers is so new and the empirical literature about the Russian case consequently so limited, I also use some international data to make comparisons and underpin my reasoning. I will present data related to the four aspects of resource broadening potential, equity, efficiency and administrative costs. Finally, I will discuss the findings in the light of the presented theory, my seven assumptions stated in chapter 3 and some more general reflections I will make on the situation in Russia.

5.2 General description of the universities

5.2.1 Mari State Technical University

Mari State Technical University was founded in 1932 on the basis of Kazan Forestry-Engineering Institute, which was moved to Yoshkar-Ola (the capital of Mari Republic) and renamed into Povolzhsky Forestry-Engineering Institute. In 1968, the institute was reorganized into Mari Polytechnic Institute by Resolution of the Board of Ministers of the USSR, because of a growing demand for engineers of various specialties in Mari Republic and neighboring regions. In 1982, the institute was conferred the Order of Peoples’ Friendship for the contribution to the development of scientific research and for great achievements in training highly-qualified specialists for the national economy. In March 1995, Mari Polytechnic Institute was renamed Mari State Technical University.
Mari State Technical University is one of the oldest technical higher education institutions in Mari Republic and its neighboring regions, and it plays an important interregional role in providing highly qualified personnel for republics and oblasts along the river Volga. Approximately 35% of the graduates from 1998-2002 presently work outside Mari Republic. The university currently enrolls more than 11000 students, including more than 7000 full-time students. It has a total academic staff of 618, including 57 professors. There are 10 faculties providing education in 49 specializations. Mari State Technical University is the most prestigious and the most popular institution among higher education institutions in Mari Republic, followed by Mari State University and Mari State Pedagogical University.

5.2.2 Mari State University

Mari State University was founded in 1972. The establishment of the university was a difficult process which required great efforts of a rather small research and educational staff, especially in the early stages, when it was necessary to create a highly qualified faculty and a material base of the institution. Leading universities of the Soviet Union, many public enterprises and organizations of Mari Republic took part in the creation of the Mari State University. In the beginning there were only four faculties in the institution: faculty of physics and mathematics, faculty of biology and chemistry, faculty of history and linguistics, and faculty of agriculture. At present, the university enrolls more than 9000 students. It has a total academic staff of 543, including 52 professors. There are 10 faculties providing education in 34 specializations.

5.2.3 Mari State Pedagogical University

Mari State Pedagogical University was founded in 1931 and became the first higher education institution in Mari Republic. A big step forward was taken by the institution in the post-war years, when several new faculties were opened. Until 1970s, the university was the only institution for the humanities in Mari Republic. More than 35000 teachers and highly qualified personnel of the preschool education system graduated from Mari State Pedagogical University during the years of its existence. The university currently enrolls about 4500 students. The number of faculty members is 264, including 22 professors.
5.3 Resource broadening potential of the GIFO system

The data presented in table 5.1 demonstrate that during three years of the experiment there has been a reduction in the total sum of budget funds, provided through discharging of GIFO. The average budget provision through GIFO per student has also decreased. Reduction of public funding in 2003 as compared to the previous year can be explained by changed conditions of the experiment and reduction of financial provision of the GIFO categories. However, for the further decrease in public expenditure in 2004 no adequate explanation can be given, especially considering the fact of improvement of SSE results by students admitted to Mari State Technical University at the full expense of the state.

The administration of the Mari State Technical University believes that the reason for this is the reduction of financial provision of the GIFO categories simultaneously with a general growth of costs for higher education. In the following, I will have to rely on national average data about funding, because I do not have any data from specific institutions or regions. According to the Minister of Education Fursenko (Nezavisimaja gazeta 18.03.2005), the average public expenditure per student amounts to 700 $ (which is approximately 19600 rubles) per year. GIFO provides only 58 % of total public funding for each university. The additional 42 % consist of 8232 rubles of 19600 rubles. In that way, a student with the GIFO of second category (= 7200) brings to his or her higher education institution 7200 + 8232 = 15432 rubles, which is significantly less than 19600. From this it follows that only two groups of students compensate the costs of their studies: 1) those with the GIFO of 1st category (12500 + 8232 = 20732); 2) those with the GIFO of 2nd category taking education in specialties which are considered the most important for socio-economical development of the regions, since these specialties are provided with the increased GIFO financing as was explained in section 4.3 (12200 + 8232 = 20432). All the other students admitted to studies at the full expense of the state are unprofitable for the institution (Bobkov, Oshchepkov, Pozdeev 2004:5).
<table>
<thead>
<tr>
<th>Calculated state budget funding of new admission (absolute figures)</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total sum of budget means provided through discharging of GIFO according to the results of admission to the first year of study, including:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- discharging of GIFO for students admitted at the full expense of the state</td>
<td>10563900 (65.5 %)</td>
<td>9272500 (71.3 %)</td>
<td>8816400 (74.3 %)</td>
</tr>
<tr>
<td>- discharging of GIFO for students admitted on the basis of additional payment</td>
<td>5555500 (34.5 %)</td>
<td>3727500 (28.7 %)</td>
<td>3046900 (25.7 %)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Calculated state budget funding of new admission (figures per student)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average budget provision through GIFO per student admitted at the full expense of the state</td>
<td>8546.6</td>
<td>7825.3</td>
<td>7516.6</td>
</tr>
<tr>
<td>Average budget provision through GIFO per student admitted on the basis of additional payment</td>
<td>4182.3</td>
<td>3457.3</td>
<td>3120.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Full price of education (sum of GIFO and students contribution)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The lowest price of education per year in the first year of study</td>
<td>11000</td>
<td>16600</td>
<td>19200</td>
</tr>
<tr>
<td>The highest price of education per year in the first year of study</td>
<td>15000</td>
<td>22600</td>
<td>26200</td>
</tr>
</tbody>
</table>

*Table 5.1 Economic results of the GIFO experiment in 2002-2004 at Mari State Technical University (Source: Bobkov, Oshchepkov, Pozdeev)*

To cover the deficit, it is suggested to reduce admission to studies at the full expense of the state (and as a consequence the total admission) and to increase profitability of admission on the basis of additional payment. This was described in the sections 4.2 and 4.4 respectively. As follows from table 5.1, prices of education in different specialties varied from 19200 rubles to 26200 rubles in Mari State Technical University in 2004. Since the average budget provision
through GIFO per student admitted on the basis of additional payment is only 3120 rubles, Mari State Technical University charges these students - depending on specialty – from 16080 to 23080 rubles per year to cover the costs.

One may only speculate if the latter students to some degree subsidize the others by paying more than the costs of their own education. Anyhow, it will be very difficult to raise the prices as the average income in the region is very low. The income rating of Mari Republic among the Russian regions is fluctuating somewhere between 70-80 place. The vast majority, namely 90% of the students, are from Mari Republic. From the year 2001 to 2003 the price for one year of education rose from 7 to 11 times the average monthly income in Mari Republic (Bobkov, Oshchepkov, Pozdeev 2004:5). According to the current system in institutions which do not take part in the experiment, some students study for free and some of them pay the whole costs of their education. The proponents of the GIFO system assert that in this mechanism every student will have to bear only part of the costs and part will be covered by the state through GIFO. However, Mari State Technical University concludes that in practice students who pay the difference between the GIFO and the price of education pay more than the students who pay the whole costs. The latter is according to the existing financing system. Thus, if the experiment has had a resource broadening potential, it must be a very limited one. Such a potential can not be demonstrated due to a lack of baseline data. What can be asserted, however, is that the financial support given from the state is lower than average, as demonstrated above.

According to the university itself, the possibilities to increase the funding of higher education are exhausted. There is no political will to increase education’s share of federal budgets and no more money to extract from students. There is also no possibility to admit even higher rates of students with the GIFO of 1st category, since they simply do not exist in such amount. Thus, resources may only be redistributed among institutions during the GIFO experiment.

5.4 Effects of the GIFO experiment on equity

The SSE has increased the possibilities for coming students to choose the form of and location for their higher education. Previously, it was always an entrance exam at every study program
and institution they applied to. Failing such an exam could delay the preferred study by a year, as there was no opportunity for taking the exam again before the admission was decided. This could possibly prevent some students from starting studies at all, as their motivation would be undermined, especially if they were coming from low income families. With the SSE, students can apply at all kinds of institutions in a very flexible way, and they will get to know in time which institutions will admit them and which will not, so they can make a final decision without any risk of loosing a year. This can be said to increase the efficiency of the allocation of students to their preferences and reduce the number of wasted years. It is also noteworthy that this has the greatest value for the least privileged, thus increasing equity. But it should not be forgotten that the social class differences in SSE results have a much larger effect on equity.

Figure 5.1 shows that among higher education institutions in Mari Republic the lowest share of students from rural areas is in Mari State Technical University, and the highest is in Mari State Pedagogical University. Thus, we can observe stratification of institutions according to prestige, with more students from rural areas in the less popular institution and a smaller share of them in the most popular university. It was noted earlier that pedagogical higher education institutions in general are less prestigious due to low status and salaries of teachers in Russia.

The situation is similar in Chuvash Republic: the less popular Pedagogical University admits more students from rural areas than the more prestigious State University. As follows from figure 4.4, both Mari State Pedagogical University and Chuvash State Pedagogical University charge lower tuition fees than other institutions in the same regions. In that way, a higher proportion of students from rural areas in pedagogical institutions can be explained by two factors: 1) lower level of knowledge of school-leavers due to lower level of quality of teaching in rural schools; 2) lower level of income in rural areas.
Both figure 5.1 and table 5.2 demonstrate the tendency towards a reduction of admission of students from rural areas in the Mari State Technical University. The explanation for this is the two factors mentioned in the previous paragraph, and a third one which will be discussed below.
<table>
<thead>
<tr>
<th></th>
<th>Share of students admitted each year, %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1999</td>
</tr>
<tr>
<td>1. Urban school leavers</td>
<td></td>
</tr>
<tr>
<td>- the urban share of</td>
<td></td>
</tr>
<tr>
<td>students admitted on the</td>
<td></td>
</tr>
<tr>
<td>full expense of the state</td>
<td></td>
</tr>
<tr>
<td>2. Rural school leavers</td>
<td></td>
</tr>
<tr>
<td>- the rural share of</td>
<td></td>
</tr>
<tr>
<td>students admitted on the</td>
<td></td>
</tr>
<tr>
<td>full expense of the state</td>
<td></td>
</tr>
</tbody>
</table>

|                          | 64.0 | 61.0 | 55.6 | 56.8 | 58.6 | 65.0 |
| - the urban share of     | 62.0 | 59.0 | 53.0 | 55.0 | 55.4 | 60.6 |
| students admitted on the | 36.0 | 39.0 | 44.4 | 43.2 | 41.4 | 35.0 |
| full expense of the state| 38.0 | 41.0 | 47.0 | 45.0 | 44.6 | 39.4 |

Table 5.2 Share of urban and rural students at Mari State Technical University 1999-20044
(Source: Bobkov, Oshchepkov, Pozdeev 2004)

The financial incentives built into the GIFO experiment seem to encourage decisions at the institutions in accordance with the business philosophy of keeping all result units profitable within a corporation. Some faculties have a large proportion of applicants with lower GIFO categories, not least those of special interest for rural professions. To avoid a deficit, Mari State Technical University decided to reduce the admission to such faculties, and even to increase admission somewhere else if there is a possibility to attract students from the first two GIFO categories. It should be mentioned that in the case of Mari State Technical University (and also other institutions in Russia), a lack of applicants to studies such as agriculture, forestry, and machinery, also prior to the experiment meant that students with poor formal qualifications were accepted. Institutions had to do so because the number of free of charge places (where students do not pay) was determined individually for each higher education institution by the Ministry of Education. Since the beginning of the experiment, however, admission at the full expense of the state in the specialties mentioned above has almost been halved compared to the level before the GIFO experiment. For example, the admission in 2004 to agricultural specialties fell to 51.9 % of the admission to the same specialty in 2001, and the admission to forestry specialties fell to 66.1 %. In specialties of machinery construction, total admission fell to 71.4 % as compared to 2001. Still, the majority of applicants to these studies bring with them GIFO of the third category or worse. This reduction is not compensated by sufficient demand for education based on additional payment. Thus, admission on a fee basis fell by 61.5 % in

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4 The source document is confusing due to an inconsistency in the text as to whether it is the share of students at the full expense of the state or if it is those admitted on the basis of additional payments which are really mentioned. The first interpretation is chosen here, as this seems logical in the light of other data in this study.
agriculture, and by 29.4% in forestry. The administration at the institution believes that from a narrow financial perspective on the matter, admission to the mentioned specialties will have to be reduced even more, to the limit of closing down studies. This may be very unfortunate for the Russian economy, which is to a large extent dependent on the wellbeing of these sectors. It is also the opinion of the administration of Mari State Technical University that such a trend is typical for other higher education institutions and has a dangerous social and economical character. The GIFO system only speeds up the process.

Similar concern was expressed by the dean of the faculty of physics and mathematics at Mari State University. According to him pure sciences (as opposed to applied) and faculties related to them are underfunded under the terms of the experiment. At present, such programs are not very popular among students. This means that students with the GIFO of third category and lower (often from rural areas) are admitted to free of charge places. In his opinion, higher education institutions will survive by expanding admission to popular programs, while pure science will suffer a decline. Those with a pure science education are much more likely to go into education and research than those with applied education, and they represent a valuable asset for this sector. Undesired effects of the reform will be noticeable in 10-15 years when it will affect the quality of future school teachers and academic staff at universities. Those who still will take a pure science education will to a large extent come from rural backgrounds, and as professionals receive limited pay for their skills. This is an example on how inequalities are reproduced through choice of education.

As mentioned previously, increased GIFO financing is offered for specialties which are most significant for socio-economic development of the respective regions, but still unpopular among the students (described in item 4.3). Even this measure does not protect the mentioned specialties from a reduction in admission. It has been suggested that the total number of students with the increased GIFO financing should not exceed 300 for each region of the Russian Federation, and that only the first three categories are provided with the increased financing.

There were 16 specialties on the list of prioritized studies in Mari Republic in 2003. Seven of these professions are taught at Mari State Technical University: technology of woodworking, technology of machinery construction, mechanization of agriculture, electrification and automation of agriculture, designing and technology of electronic machines, industrial and civil
engineering, and forestry. There were admitted 291 students to prioritized studies in the whole republic. In Mari State Technical University there were admitted 100 of them, which formed 5.6% of the total admission (1781 students) in 2003. Details about the distribution of GIFO categories to students and their subjects are presented in Appendix I. Here I find it sufficient to state that the measure of extra funding for prioritized subjects has not increased the admission to these subjects.

Also international experience indicates that merit based programs increase social inequality. For instance, evaluating the merit based HOPE scholarship in the State of Georgia, USA, Cornwell and Mustard (2002: 67) conclude that because high school academic achievement and family income are positively correlated the HOPE scholarship tends to benefit students from middle- and upper-income households, who probably would have sought higher education even if they would have to pay it all themselves. Moreover, Cornwell and Mustard (2002: 66, 67) find that student quality has risen during the HOPE period (some researchers interpret it simply as a grade inflation) and, as a consequence, the state’s top universities have been able to raise admissions standards. As a result, the black share of freshmen enrollments at the state’s most selective institutions, the University of Georgia and Georgia Tech, has fallen during the HOPE period. At the same time, the increases in black enrollments have generally occurred at the state’s less selective schools. Thus, Cornwell and Mustard suggest that HOPE may be exacerbating the racial stratification of Georgia colleges and universities. Their findings are confirmed by another researcher of HOPE’s impact on college attendance (Dynarski 2002: 86), who also asserts that Georgia’s program has widened the gap in college attendance between blacks and whites and between those from low- and high-income families. The experience from USA correlates with my findings from Mari Republic, where admission of students from rural areas at the most prestigious Mari State Technical University is falling faster than at the least prestigious institution, namely Mari State Pedagogical University.

Assessments of the impact of the HOPE program on access to higher education presented above are part of the report “Who Should We Help? The Negative Social Consequences of Merit Scholarships”, published in 2002 by the Civil Rights Project at Harvard University. This report studies four publicly funded merit scholarship programs in the United States. According to one of the editors of this report, Marin (2002: 113), merit based programs are very popular because rewarding students for their academic work seems to be the right thing to do. However, because of the definitions of "merit" employed, as well as the logistics of these
programs, many of the students who have the greatest financial need are passed over, effectively increasing existing disparities in college participation for minority and low-income students. Somehow policymakers have lost the focus of expanding access to higher education and have replaced it, albeit indirectly, with increasing inequity. Marin concludes (2002:113). Thus, experience indicates that merit based programs in general have a tendency to increase social inequality.

5.5 Effects of the GIFO system on efficiency

The most crucial question for any market-oriented reform is whether competition improves the performance of the institutions. Only if competition improves the overall performance of the system would such reforms increase the efficiency and therefore enhance the performance of the system. Currently, institutional funding in Russia is input-oriented, with some budget items being provided only on the condition that they are used for specific purposes (such as salaries and student stipends) and other items left to the institution’s discretion. It is argued that with input-based funding, institutions have little reason to act efficiently or be responsive to changing external demands, while a student-based mechanism incorporates incentives for institutions to make the most efficient use of funds.

In the theory chapter, the rate of efficiency was defined as the production cost per unit of unchanged quality – the less money per unit, the more efficient. Quality improvement without increased use of resources may also be seen as a variant of increased efficiency. According to the interviews with administrators of the institutions in Mari Republic, the positive aspect of the reform is that it forces the university leadership to care more for the economy of the institution. At the same time, all interviewees expressed the opinion that it was too early to say whether the new funding mechanism contributed to the promotion of efficiency (as less money per unit of unchanged quality), especially due to changed conditions of the experiment and changed provision of GIFO categories. The same was said about efficiency as quality improvement without increased use of resources, for instance in the form of better teaching. One must be aware of the fact that the increase in the efficiency of teaching and research in most cases cannot be documented, for in most instances, no reliable performance indicators have been developed (Eicher, Chevaillier 2002: 81). This goes for the GIFO experiment as well.
As for the impact of vouchers on the educational effectiveness, researchers have attempted to develop empirical estimates of the educational impact of vouchers relative to that of the more traditional public school organization. All these mostly American studies, according to Levin and Belfield (2004: 4), have problematic features, so empirical evidence has not settled the issue to the satisfaction of those who have not made prior commitments to one side or the other. To this point, some of the studies have found small positive impacts of choice, competition, and vouchers on student achievement; others have found none. A few have found small negative impacts, but no study has found any substantial differences in student achievement, for example, an impact that would potentially close the achievement gap among races. Levin and Belfield conclude that it has become increasingly apparent that the search for evidence on the educational effectiveness of vouchers is a charade that will not settle the debate.

There is one more problem posed by the GIFO system to the effectiveness of the institutions. Rector of Mari State Technical University G. Oshchepkov said in an interview made by a representative from the Higher School of Economics (Abankina 2003: 15) that a higher education institution can not function without constant minimal financial guarantees. In his opinion, GIFO creates a situation of instability. If such a voucher model will be implemented, the participating institutions will have changing faculty staff and unstable salary level. In other words, a voucher system can negatively affect the possibility of long term strategic planning which is needed for improving the performance of the institutions.

Speaking about efficiency, one should also mention dynamic efficiency which increases, according to Jongbloed (2004: 11) due to the fact that competition encourages providers to look for new products that are differentiated from existing ones (thereby decreasing the intensity of competition). It appears from the interview obtained in Mari State Technical University that GIFO experiment did not make any impact on the institution in this regard. In Mari State Technical University, the introduction of new study programs has happened during the 1990s when institutions were granted the right to admit students on a fee basis and when there was a growing demand for study programs in sociology, law, management, economics, and other studies which became both important and popular among the youth. This trend was typical for most of the higher education institutions in Russia in the 1990s. Thus, the introduction of market elements (admission of students on a fee basis) resulted in an increase of dynamic efficiency. The fact that the GIFO did not affect the dynamic efficiency is simply explained by
the introduction of new study programs just before the experiment started. What we can observe, however, is an expansion of admissions to newly established studies and a reduction of admissions to more traditional and currently less popular programs, and this happens not least because of the voucher program (this was described in more detail in item 5.4).

Having discussed the efficiency issue at the institutional level, I will now turn to the problem of the effective use of public funds on a larger scale. The utilization of public funds in the higher education system is certainly ineffective. It is estimated that prospective students and their parents spend more money on tutoring and bribes for admission than the federal budget allocates to higher education sector per year, and the government can not collect taxes from providers of this kind of services in the shadow market. The aim of the reform was to redirect the investments made by students from the shadow market into legal financing of their education in public higher education institutions, thus increasing the inflow of private means into the sector. It was expected that students would be even more motivated to do so since they would not have to pay the whole costs of their education, as part of it would be covered by GIFO.

However, the presentation above shows that such a phenomenon as corruption was not fully eliminated. One can also speculate that tutoring as a preparation for entrance exams turned into tutoring as a preparation for Standardized State Examination. These two factors seem to be the only possible explanation for the fact that in Mari Republic 20.29 % of school leavers got top results in 2004, whereas in 48 out of 65 SSE regions this figure did not exceed 5 % (Appendix II). Top results are measured as the percentage of school leavers achieving more than 200 points for three exams out of 300 possible, because 100 points is the highest result one can get for one examination. Such speculations are confirmed by the members of Mari Testing Center. Moreover, all the three deans in Mari State University I interviewed said that a big share of students with GIFO of 1st and 2nd categories do not perform as well during their studies in university as their SSE results should indicate. Estimates for this share are 30-50 % according to the mentioned deans. In addition, one of the deans said that prices for tutoring as a preparation for SSE had increased three times since the beginning of the GIFO experiment.

On the other hand, there are some data from 2002 from Mari State Technical University indicating that the discrepancy between the category of GIFO awarded and exam results from
the first study year is not quite as big as suggested by the deans (Appendix III). The difference is still significant, however, and in the same direction as they claimed. The deans explain their dissatisfaction as follows: GIFO category is awarded on the basis of the average result in five SSE subjects. For example, a school leaver gets among other subjects 95 points in Russian language and 60 points in mathematics. The average result and related to it GIFO category might be quite high, but it does not help so much if a school leaver gets admission to the faculty of economics or physics where knowledge in mathematics is important, and knowledge in Russian language not. That is why the deans advocate the old system of entrance examinations where they could select students in accordance with the requirements of their faculties.

This opinion is shared by many rectors of leading Russian universities, including the rector of Moscow State University Sadovnichij and the rector of the prestigious Moscow State Technical University Fedorov, who declared their decision to ignore the SSE experiment in 2005 and not to admit students to their institutions on the basis of SSE results (“Vremja Novostej” 28.03.2005: N 51). This reluctance explains why Moscow has been among the last regions to apply the SSE, and did not join it before 2004. It is still not obligatory in the region.

Based on the sources mentioned in the above paragraphs, a conclusion may be drawn that the proposed reform did not lead to a more effective use of public funds. However, it should be mentioned that SSE results from other regions taking part in the experiment are not by far as “good” as in Mari Republic. In Chuvash Republic 6.85 % of school leavers get more than 200 points and in Yakut Republic 2.94 % achieve this. The national average for regions taking part in SSE in 2004 is that 3.10 % of school leavers achieve 200 points or more. Thus, we see that also the Chuvash Republic scores more than twice the national average, but the Yakut Republic is below the average.

I have no solid explanation for this variation between regions that participate in the GIFO experiment. In Yakutia, it may be the case that youth are simply not so concerned with higher education, as a lot of opportunities are presented by professions related to its very rich natural resource base. The difference between Mari and Chuvash is difficult to explain, but at least both these cases show the same tendency. These regions have approximately the same economic level and are equally far from the center. It is tempting to believe that something may
have been different between them in the way SSE have been conducted, with more real control in Chuvash Republic. However, according to one newspaper SSE results in 2002 were very good in Yakutia and Chuvash Republic. This may be speculations, as to my knowledge there were not published any official regional comparisons before 2004.

Similar concerns arise with respect to the experiments with merit based scholarships, such as the Georgia’s Hope Scholarship in the United States mentioned previously. To qualify for the scholarship, an entering freshman must have graduated from an eligible Georgia high school with at least a “B” average grade. To retain their scholarships, students must maintain a “B” average while in college. Since HOPE started, the number of high school graduates eligible for scholarship has grown rapidly: average Scholastic Assessment Test scores and high school grades for Georgia high school graduates have risen significantly. This factor is known as grade inflation. Grade inflation is defined as a systematic increase in student grades over time that is not related to increases in performance. If grade inflation is occurring in schools, it could be that parents and students are putting pressure on teachers to raise their grades. Students with overall averages close to a “B” may be more likely to receive the inflated grades. Even though some analyses do not confirm that grade inflation has appeared or accelerated for students entering the higher education institutions of Georgia following the start of the HOPE program, “the evidence is mixed – some professors see little to distinguish today’s class from yesterday’s, except that today’s is obsessed with reaching a “B” average” (The Chronicle of Higher Education 1997).

Other criticisms have been directed at HOPE as well. Critics of the program argue that the expenditures are inefficient since most HOPE recipients would have attended college even in the absence of the program (Bugler, Henry, Rubenstein 1999: 3). This fact was mentioned above, in section 5.4 where issues of equity were discussed. At the same time it is relevant with respect to the problem of effective use of public funds. The findings from Georgia are highly relevant also for the Russian experiment, as indicated by the data shown in the various tables.

To summarize, a voucher experiment seems to result in a double inefficiency in the use of public funds; first it leads to a huge resource waste on tutoring and bribes, and second the voucher funds are allocated to a large degree to those who would attend higher education no matter how they were financed. Tutoring and bribes have little effect on students’ performance.
The actual allocation of funds is not in line with the aim of allocating funds to the clever and hard working, regardless of their social backgrounds. Thus, regarding this aspect we can say that the GIFO system so far is inefficient in achieving its stated purpose.

5.6 GIFO and administrative costs

Many researchers of funding mechanisms assert that running voucher programs requires additional funding and staffing. These costs can negatively affect the efficiency of a program. There are two levels of costs in assessing the voucher scheme (Levin 1996). There is the cost at the institutional level, and “there is the public (and overall) cost of the administrative and service infrastructure necessary to support voucher marketplace relative to the present system which is considerably more centralized” (Levin 1996).

According to the interviews obtained in all three higher education institutions in Mari Republic there was not a significant increase in administrative costs since the beginning of the voucher experiment. None of the three institutions in Mari Republic had to hire additional staff due to the transition to the new funding mechanism. However, one of the respondents, an employee in the financial department of Mari State University, said that the working load of the university staff increased because of the new system of record keeping and monitoring, but this did not result in a salary growth. Thus, based on the available source material it seems that the voucher program did not affect the cost at the institutional level. This needs to be reasserted at a later stage in the experiment, and requires a more thorough study of the situation at each institution.

A totally different picture appears when we look at the overall public costs of the proposed reform. Probably, the GIFO experiment as such does not require a lot of additional funding due to its limited scale. However, the development of a comprehensive system of testing of secondary school graduates as part of a voucher experiment requires tremendous investments from federal and local budgets. Unlike USA and some other European countries which use different tests for measuring intellectual ability (for instance Scholastic Assessment Test, Graduate Record Exam, Graduate Management Admission Test, etc.), Russia does not have scientific foundations for educational measurements based on testing. The history of using such measurement methods in Russia amounts only to several years and their development is in the
very beginning, since such methods were criticized and not trusted in the Soviet Union. That is why the creation and development of tests provokes a lot of heated discussions and criticism due to their imperfection. There is a constant work underway on their improvement.

During the last several years a database has been established which contains 77,119 individual tests. In 2004, 65 regions of Russia took part in the experiment and 1,512,133 tests were conducted (Uchitelskaja Gazeta 16.11.2004). Thus, considerable expenditures have been made on developing tests in the Federal Institute for Pedagogical Measurements. In addition, tests have to be constantly renewed. Besides, costs of the SSE experiment include monitoring of the experiment, training of specialists for conducting SSE and evaluation of its results, providing Testing Centers with ICT since results of parts “A” and “B” of each test are processed by computer, expenditures on printing of test forms and technical services, travel expenses of inspectors visiting other regions, travel expenses for delivering graduates from the remote rural areas to the places of examination, expenditures on postage and writing materials, holding conferences and seminars on the exchange of information and experience, etc. To sum up, the federal and regional costs are substantial. In the conclusion I will propose some ideas as to how these costs might be justified for the sake of getting better national data about the performance of school leavers.

5.7 General discussion of findings and theory

5.7.1 Assumptions revisited

In the following I will discuss each of the seven assumptions presented in chapter 3.

1. The introduction of GIFO as compared to the old system will increase the responsiveness of higher education institutions, and thus increase both the productivity and the quality of education.

I found evidence for the first part of this assumption, in the meaning that the more prestigious subjects get increased attention so that institutions can admit more students with the two best GIFO categories, and decrease the emphasis on subjects which mainly
attract “unprofitable” students. The responsiveness is thus contingent on the resources the students bring with them to the institution, again validating the common sense assumption that material incentives work. I have no information about any more general responsiveness to students’ wishes apart from the mentioned factor. But the information I gathered did not in any way suggest that either study productivity or quality was increased or decreased.

2. The GIFO system will move resources away from study programmes which do not generate net income for the institutions, except from those study programmes given special priority within the GIFO system.

The first part of this assumption is firmly supported, as stated above. But the modification in the latter part did not find support in the material. The authorities need to discuss whether these special programmes need even bigger rewards tied to them, or if Russia simply must accept that student choices reduce the amount of highly educated workforce available for these professions.

3. The distribution of state funding for students will tend to be more concentrated on persons with academically skilled parents. Compared to the current situation in Russia concerning access to higher education, the equity effect of this is not obvious, but will probably increase the level of inequality. On the other hand, it may be argued that clever students from poor backgrounds will get a better chance than previously, and that the less talented rich ones will be among the losers.

The first proposition above is not measured directly by my data. But there is strong evidence for a reallocation of funding towards persons living in urban areas to the detriment of the rural ones. It is obvious to suggest that this will mean a reallocation towards students with academically skilled parents. The difference in academic level between the urban and rural population is generally bigger in Russia than, for instance, in Western Europe.

The second proposition was posed for the sake of nuance. The content of this is firstly that the connection between parents and their children’s academic level will be stronger. Secondly, it states an ambiguous relation between this and consequences for income distribution. Some academic professions are very poorly paid in Russia, considering, for instance, the effort necessary to become a teacher or medical doctor.
Some other academic professions can generate large income advancements, for instance economists or lawyers. I have not taken up the task of describing and analysing this complicated picture. The proposition will thus not be further discussed.

The “clever poor versus less talented rich”-proposition is complicated to conclude on. Of course, nothing except maybe massive corruption can stop the clever poor ones from good SSE results and therefore the best levels of GIFO financing, and thereby access to prestigious higher education. But there is a mechanism of great numbers working against this. Moving only a little bit away from the least talented and most clever ones, the amount of resources available for pre SSE tutoring and eventual bribes (wherever administration of SSE is corrupted) plays an important role. It is difficult to measure the significance of this on SSE results and consequently admission to educational institutions, but the total amount of resources spent on preparing school leavers for the SSE indicates for me that the rich ones win clearly in the number game. The SSE should theoretically be likely to cause an effect of selection of the more clever students within any income group, compared to admission before the system was introduced. My personal sources argued against this assumption, but I find it hard to verify their view. It should not be forgotten that the old system generated some extra personal income from tutoring and preparatory courses at the institutions, a fact which may colour perceptions a little.

4. If the institutions demand additional funding from the students (those with GIFO of second category or less), which they are quite likely to do, the level of equity will be significantly reduced.

The data from Mari Republic show that additional funding has reached a high level, so high that according to my sources, any further increase may result in a reduced demand for admission. The admission will then be more and more concentrated on the higher income groups, and especially so among students earning few GIFO points. The data I have found on how GIFO categories are distributed between urban and rural school leavers confirms that additional funding has reduced equity. But since these data are only geographical and not broken down to income groups, it is uncertain how strong this effect will be.
5. **By introducing a stricter selection of the skilled students, it may be expected that both the proportion passing exams will increase, that their results will generally be better, and that the candidates will fit better to the needs of future employers. One might assume that the differentiation between GIFO categories motivates students to work harder already within secondary education, and also that the whole learning milieu at campus will be improved through competitiveness in the selection.**

It is a little early in the experiment to conclude on how the outcome will be concerning academic achievements and accommodation to the needs of employers. I am only able to rely on my personal sources at the institutions I visited. They state that they have seen no effect in any direction concerning the achievements and efforts made by students. But some effects are to some extent already visible within secondary education. The resources spent on preparations for the SSE are considerable, and as far as I can see bigger than resources spent on preparation for entrance exams previously. Even if there is still a problem of corruption connected with the administration of SSE, it does not seem unrealistic that careful measures taken to adjust the implementation may steer resources away from bribes to simply payment for tutoring. It seems reasonable to assume that to pay for tutoring increases motivation to prepare for the exam compared with paying for bribes. Thus, even if it can not be clearly demonstrated yet, I believe we will see that the link between SSE and GIFO will spur future students to work harder in secondary schools.

In Russia, there is a growing tendency to demand academic education also for not so advanced jobs. This results in a growing demand which is not based on a correspondingly increased interest for academic study subjects as such. For many students, the main point is to get an academic degree rather than to achieve top results, and the connection between the degree and the actual professional career may be rather vague. It is tempting to suggest that the GIFO system as an incentive structure mainly affects school leavers as entrance has become more competitive, but that they do not perceive life at the institutions as a continuation of this race.

6. **It seems likely that institutions will become less inclined to introduce new topics or perspectives, and that the incentives to present local results in a too positive way or**

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to be lenient with examination and determining characters will be hard to resist, undermining my first assumption.

My material is maybe too limited to conclude about the inclinations or creativity of institutions concerning introducing new topics, but at least nothing I found indicated willingness to take chances. Rather, the discussion would be about closing down unpopular subjects and maybe to expand in the field law and business related subjects. The latter parts of this assumption can not be commented upon on the basis of my data.

7. The GIFO reform will increase the administrative costs at each institution by creating an increased need for measuring all types of costs, creating internal incentive structures at the institutions, internal and external reporting systems and information services to the potential students.

My informants explained that the local costs at the institutions were not raised, but that the work load had increased. This can be viewed as increased productivity, but if it leads to more unpaid working hours, then real costs are not compensated. It was not clear for me on the basis of what I was told by informants exactly which tasks needed more effort than before, except that budget considerations demanded a lot more work than before.

5.7.2 Reflections on the findings in light of Russia’s transformation

The GIFO experiment is a mix of meritocracy and market developed within the public sector. The point of departure was a system where the state gave block grants to finance the daily business of education, while new investments would be possible in most cases only after ad hoc funding from the state, based on contacts and applications. It was hardly possible for the institutions to plan their future investments, as they had little idea when it would suit the authorities to reimburse them. Furthermore, the basis for calculation of the block grants seemed unclear. No decisions were made on an average price for each study year in the various faculties or professions. It may be fair to say that the financing structure in function before the GIFO experiment just evolved on the basis of long term incremental changes made during the days of the Soviet Union. The incrementally planned changes were characteristic of much of the Soviet economy in its last decades.
When the Soviet system was dismantled after 1990, the population had none or at best little training in market behavior. The public services parts of the economy were still rather protected, at the same time as huge assets were virtually given away to those who now are the core of the Russian business elite. The partitioning of state companies into value papers distributed to the Russian people was in a way a gigantic voucher experiment for the whole economy. Nobody knew the true value of the vouchers (this was a logical result of the lack of proper value estimation under the centrally planned economy), and the many ordinary people who did not have the slightest idea of its value gladly traded them away for small sums to the more informed ones, who had at least some notion of what could be gathered at their hands.

It is only a handful of years after the wild privatizations, corruption scandals and bank frauds (in this context meaning banks set up as frauds against their customers – no assets security required by the state, no credit supervision authority in action) that the market is introduced to the higher education sector of Russia. It is absolutely essential to understand that the point of departure for strategic behavior is widely different for Russian students and their parents compared to for instance American or British ones. Apart from the lack of training in market behavior, Russian parents do generally not have reserves which they can put into their children’s education. The potential students can often not afford to choose a path of sacrifices where income rewards are delayed, but bigger. Should they fail some exams, it might be an immediate financial disaster, and education might have to be aborted. Thus, shorter or no higher education will be the necessary answer for Russia’s working poor if they are not furnished with the highest GIFO levels.

A popularized presentation of the GIFO experiment might assert that it provides equal opportunities for academic merits, with the SSE as the base for further achievements. But already at the SSE the class structure is reinforced in a new way. Even the hard working and intelligent young pupil in a rural secondary school may face severe difficulties: teachers are less educated, essential books are likely to be lacking in the schools, time may even have to be wasted on dictating the curriculum texts. Such conditions, of course, affect the outcome at the SSE. An assertion of equal opportunities might be less implausible if such an experiment was made in a country where the material standard of the schools and the income and educational differences between center and periphery were much smaller. Still, there is an element of meritocracy anyhow, since good results are rewarded regardless of social background. But this
is to a large extent a reallocation from the poorer students to students mostly coming from what by Russian standards are above average income backgrounds.

Discussing equity issues as a part of modernization of higher education in Russia, reformers and politicians distinguish between ordinary higher education institutions and prestigious ones, between mass and elite higher education, arguing that all talented young people should have access to the latter. In the course of these debates it is often forgotten that there is a need for providing all the school children with equal start opportunities. Equalizing start opportunities means minimizing influence of objective factors (which do not depend on a person or a school leaver in this case) which can unjustly reduce the competitive capacity of a person. One of these factors is quality of teaching in primary and secondary schools. It is often (and may be deliberately) overlooked that primary and secondary schools are also divided into rural, ordinary, prestigious, and elite. It is not the intention of this paper to discuss problems of Russian primary and secondary schools, but it is important to mention them since equal access to higher education begins with equally good levels of teaching in primary and secondary schools. Before demanding a certain standard quality of teaching, state authorities should have made sure that they did everything to provide schools with conditions where high quality teaching is possible.

Stratification of schools mentioned in the above paragraph is not the only problem. According to deputy of State Duma Glasev (19.11.2004), school education is locked in regional budgets. Federal authorities are not responsible for the quality of secondary schools, but want very much to have schools of the same standard without considering the fact that the amount of money spent per pupil differs 5 to 7 times between regions. The salary of a teacher in Moscow, for example, is five times higher than the salary of a teacher in the neighboring Tula region.

Thus, big regional differences in public income result in huge disparities. Disparities between and within regions can also be observed within higher education. The ordinary financing system evolved over long time. The system has been more and more lagging behind the actual development at the various institutions and whatever was the initial rationale for the allocation of funding has vanished in the haze. The strategic behavior of the institutions, however, seems very clear: First priority is to manage all wage payments. Second priority is literature, equipment and ICT. Renovation and building will only be invested in if special extra funding is provided, but applications from the institutions by far exceed the sum available to the Ministry.
A proposed transition to a system of financing per student per year was blocked, because nobody knew what to take as a point of departure for calculating such average costs.

The result of this – bearing in mind that the sums given as grant blocks were far too small to cover the real costs of good quality education – was that institutions adapted to a long term deterioration of quality, mostly noted in a lack of investments and simple renewal of books, etc. Since the Ministry told institutions that they had to accept a certain number of students for free without the possibility to accept fewer, but may charge anyone coming in addition, there was a tendency to accept more and more students. The size of groups increased in the steadily more worn down institutions, and this did obviously not contribute to quality. Better quality could of course be achieved through spending more money on each student, but the choice of reducing costs and raise quality by tightening admission was simply not allowed.

The data indicated that a transfer of funding takes place from rural and less privileged students to urban and more privileged ones. To be more accurate, existing students are not deprived of any benefits, but the distribution of funds for the new student generations will follow a different pattern than their predecessors. If we use social classes or regions as the unit of analysis and not particular individuals, we may thus speak of an observed violation of Pareto optimality: Benefits are taken away from one group to be given to another. When this occurs without simultaneously creating an increased efficiency in the use of funds or improved quality of educational results, it is difficult to find justification for this reallocation.

The efficiency and fairness of the SSE is seriously questioned by my sources. In my opinion, this is both a technical implementation problem, and a problem concerning equity. The basic idea behind SSE is justified in my view, because there are strong reasons to establish a standard for checking the academic level of the school leavers. A system of objective evaluation is very much needed in Russia. But it will be a big challenge for the authorities to make the SSE fully transparent and unbiased. The equity problem is that it is not justified to provide unified federal standards in the sphere of education in the presence of such considerable disparities between regions, and between schools within regions. At least this is the case if such a standard should be all decisive for the admission of school leavers to higher education institutions. One could, of course, find other mechanisms for admission, and still keep the SSE as an obligatory quality check, eventually as a representative selection of a few thousand school leavers nationwide. The best solution, however, is probably to keep the SSE both as a tool for monitoring quality
and as an admission mechanism, but to level out the material differences in primary and secondary schools. This, however, will cost a fortune.
Chapter 6 Conclusion and suggestions for change

My research question was formulated as follows:
How has the introduction of vouchers affected higher education in Russia?

I have discussed aspects of equity and efficiency, the amount of resources available and administrative costs. The overall research question was operationalized through the following sub-research questions:

1) How can the voucher model that is being used in the Russian experiment be characterised?
2) How has the student-based funding through the voucher system affected the effectiveness of the use of public funds?
3) How has the student-based funding affected the access to higher education?

In the following I will present my general evaluation of the experiment in light of the aspects I have discussed, and in-between I will present some suggestions for changes.

The GIFO experiment is an innovative and quite complicated example of the introduction of New Public Management ideas in the sphere of higher education. The experiment started without much public debate about the eventual need for market incentives within higher education. It took place only a few years after the big economic crisis of the late 1990s. This was a period when many important decisions were made and market reforms introduced above the head of the Russian people, and thus without democratic legitimacy. This created an atmosphere of distrust towards authorities in general. The lack of trust was shown immediately in the reception of the SSE and the GIFO reform by the rectors and other professionals in the sector. One could, of course, discuss how justified the negative reactions were, and to what extent the opponents only cared for their own or their institutions’ privileges.

My own view is that a positive element in the experiment is that the authorities have taken an interest in measuring the real costs of each year of various studies, and in how to allocate resources in accordance with this. This is badly needed and previously neglected in Russia. Such measurement should even be refined to the point where resource allocation is based on
average costs for providing education with good quality, and not be based on a static impression of today’s costs.

The experience with the GIFO experiment so far exemplifies that it is very difficult to reduce social inequality in the educational sector by means of competitive incentives. Even if such incentives may seem socially neutral in its emphasis on meritocracy, in reality social inequality tends to be reproduced. This is not changed by the upward social mobility of a minor group of students from low income backgrounds. The tendency of reproduced inequality is probably valid also for other countries trying to introduce market reforms to such extent, but historical factors make Russia an especially difficult case: the Russian people are not yet well trained in market behavior in the welfare sectors of the economy, the lack of proper information to the future students is very incomplete, and parents do not have reserve assets to transfer to the market. Thus, Russia is not ready for strong market governance within higher education, regardless of any principal views concerning the general justification for a market model.

Concerning efficiency, it seems that the GIFO experiment for the moment is not a success, but there is considerable room for improvements. This, however, necessitates some changes: The financing system needs to be more precise, but still in a way to keep it as uncomplicated as possible at the same time. The suggestion to reduce the number of GIFO categories to three should be welcomed in my view. The two lowest categories do little to help the students. When such market incentives are introduced, it is a little like crossing the Rubicon: if you want to harvest the benefits, the means should be implemented with consequence. Thus, it would be logical to decide that all studies can be offered at any institution without any study needing to subsidize another. Therefore, GIFO funding may be differentiated between studies of significantly varied cost levels. For instance, the health education programs containing clinical training are very different from merely theoretical studies. If efficiency is seen not only as overall cost reduction, but also as an ability to produce a politically desired result, it may also be justified to increase the financing for the regionally important studies that lack applicants for the moment. Ultimately, of course, there is a limit to be demarked somewhere beyond which one should not increase such extra rewards even if applicants are still missing.

If one puts prime emphasis on equity, it may be necessary to establish a study financing system which is so generous that students of low income backgrounds can afford to go to any institution in the country. This is especially important if admission is based on a strict
meritocracy, and not on some kind of quotas, etc. To establish a system inspired by study financing in Northern Europe will probably violate the Pareto principle, as the high income groups must contribute more. Another way to invest in equity would be to provide comparatively bigger resources to secondary education in the rural areas than in the centers. Apart from the fairness and equity aspect, it can not escape observation that a lot of talent is lost for Russia because of the shortcomings of rural secondary education.

The SSE and the GIFO experiment can be seen as the very beginning of the development of a national quality information infrastructure in Russian education, making it possible to follow trends over a longer time span. It will both provide information on the skills of school leavers as an indicator of the quality of the secondary schools, and information on how many SSE points are needed for admission at the different higher education institutions and faculties. I believe this information is very much needed. Such an infrastructure would be very beneficial for quality improvement at the different institutions, as a means for enlightened choices for future students, for governance information for the central and regional authorities, and as a source for research and public debate on the state of Russian education. The latter will also function as a feedback loop to the authorities and the institutions, thus enhancing the effect such information may have on their analysis and actions. Later such an infrastructure may be extended with many other elements, as, for instance, the number of students per teacher, density of ICT equipment, library resources, forms of teaching provided, tutoring and exam results.

Needless to say, the implementation of the SSE must be adjusted in a way which minimizes corruption and errors, aiming at transparency. This is necessary both for the sake of equity and efficiency, one aspect of the latter being providing authorities and the society at large with reliable data.

One administrative and also democratic aspect of extending the GIFO system to the whole country would be to make the basis of funding to the institutions fully transparent. Even if the suggestion I have posed concerning development and differentiation of the GIFO weights may be considered as complicated, it must be remembered that the point of departure is beyond almost anybody’s oversight. Financing is now divided into several different items, and calculated more on habit or undue influences than on the basis of objective indicators. A different way to finance higher education institutions can be to revise the existing system of
input based funding, creating updated and objective weights for different cost factors, and transfer all the money to the institutions as a single block grant. This can be done equally transparent as GIFO, and the SSE may still be kept as entrance prerequisite.

Little is known about how the GIFO experiment actually affects study quality. This is the most important question I would suggest researchers and the authorities should monitor provided that the experiment will last for a long time.
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### Appendix I Admission to prioritized studies at Mari State Technical University in 2003


<table>
<thead>
<tr>
<th>GIFO category</th>
<th>Number of students with increased GIFO provision</th>
<th>Distribution of these students on prioritized specialties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>10</td>
</tr>
<tr>
<td><strong>Categories</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>57</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td><strong>Urban students</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Categories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
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</tr>
<tr>
<td>3</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td><strong>Rural students</strong></td>
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</tr>
<tr>
<td>Categories</td>
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<td></td>
</tr>
<tr>
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<td>6</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>19</td>
<td>1</td>
</tr>
</tbody>
</table>

1 - technology of woodworking  
2 - technology of machinery construction  
3 - mechanization of agriculture  
4 - electrification and automation of agriculture  
5 - designing and technology of electronic machines  
6 - industrial and civil engineering  
7 - forestry
Appendix II The highest SSE results in 2004

(Source: Uchitelskaja Gazeta 16. 11.2004)

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of school leavers and their achievement of SSE points</th>
<th>100 points in one subject</th>
<th>200 points in two subjects</th>
<th>In three subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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## Appendix III Exam results during first year of university study 2002-2003 at Mari State Technical University

(Source: Bobkov, Kazarinov, Oshchepkov, Pozdeev 2004: 50)

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<th>GIFO category</th>
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\(^1\) The grade system goes from 2 to 5, where 2 is fail and 5 is best.