The Modernization of Education in Russia

This Chapter was written by Mary Canning.

Executive Summary

Russia has made substantial progress in reforming the over centralized, rigid educational system that it inherited from the Soviet Union. The Education Modernization Program of the last few years has contributed substantially to this reform. Nevertheless there is still much to be done, both in refining the reform strategy and filling its gaps, and in effectively implementing some of the policies it has put in place. This Policy Note discusses the major outstanding issues the Program still has to address. Its purpose is to summarize the Bank’s current thinking on the main agenda of the Modernization Program, to guide the Bank’s analytical work and to support the management of the newly-created Ministry of Education and Science in both policy analysis and implementation strategies as appropriate.

Policymakers and administrators have been overly concerned with inputs and processes of the general education system at the expense of focusing on outcomes. The results of the Organisation for Economic Co-operation and Development (OECD) Program for International Student Assessment (PISA) indicate that, unlike in comparisons of scientific and mathematical knowledge, Russian students are poor in skills relevant to real-life situations. A focus on learning outcomes, and especially on transferable skills, will require substantial reforms in methods of quality evaluation, curricula materials, and teaching methods, all of which must be reflected in teacher training and upgrading.

Vocational education has been the most neglected area of reform. The Soviet system trained students in narrowly specialized programs for jobs in a planned economy. The economy has changed dramatically, but the training system has not kept pace. There remains an excessive number of specializations and a lack of attention to transferable core skills. Reform has been made harder by the diffusion of responsibility for the system among a large number of federal ministries, regions, and city authorities, the roles of which are often unclear. There are plans to transfer financial responsibility from the Federal Government to regional governments in 2005. Although potentially advantageous, there is a danger that this will weaken the nationwide transferability of credentials, that the financial position of an already underfunded system will worsen, and that poorer regions will fall further behind. A strategy for reform must reconsider the links between general and vocational education and between different training institutions. Although radical measures will often need to be taken—many institutions may have to close, and others to change their profiles and therefore their staff, this is not a sector where one reform will fit all. Monitoring the situation, learning from experience, and advising local authorities how to implement the strategy are crucially important tasks for the Federal Government.

Reform of the higher education system has become an important part of the Government’s policy agenda. There is a clear need to develop and implement a national strategy for the sector that will strengthen institutional autonomy and clarify systems of governance, and which will, in turn, require a new system of quality assurance. There is a need to reform university entrance procedures now that the Unified National Examination for school leavers is

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1 This report was prepared by a team led by Mary Canning. It included Maree Bentley, Johanna Crighton, Isak Froumin, Martin Godfrey, Dorota Holzer, Stephen Kerr, Andrei Markov, and Kirill Vasiliev.
becoming widely accepted. There has been a very rapid increase in enrolment at private institutions, and also of fee-paying in public ones. This increase is desirable, but, if equity of access is to be preserved, systems of scholarships and student loans should be introduced. It is important, however, to factor in the political economy lessons to be learned from the experience of other countries in the design and implementation of student admission and financing policies. Much more should be done to improve the responsiveness of tertiary institutions to the needs of changing labor markets, and, more generally, to strengthen the links with the dynamic sectors of the Russian economy.

One of the concerns of the Education Modernization Program is access to education. This is an issue not only for higher education; public finance for general education is still low by international standards, and is geographically very unevenly spread. Systems of per capita student financing have been pioneered in a few regions, and this experience should be used in implementing these policies nationwide. Appendix 1 discusses Russia’s experience with these reforms, together with lessons from other countries, both of which can help ensure that the principle of school autonomy does not conflict with Treasury control of public expenditures.

I. Overview

Objective of the Policy Note

The purpose of this Policy Note is to summarize the Bank’s current thinking on the main agenda of the Modernization Program, to guide the Bank’s analytical work and to support the management of the newly-created Ministry of Education and Science in both policy analysis and implementation strategies as appropriate. The Policy Note covers secondary and tertiary education and also vocational education, which is virtually missing in the reform agenda but which should be an important element of the Program. The Note is based both on the experience the Bank has in the field and data available therefore, many important issues had to be omitted. We do not, for example, consider policies concerning preschools, which were greatly affected by the withdrawal of financing by State-Owned Enterprises, which had been almost entirely responsible for their operation before the transition. Nor does the Note consider the implications of lifelong learning beyond the formal education system, because we believe that the topic merits a separate discussion. In that respect, we would confine ourselves to noting here that because aging societies depend more on older workers as a source of new skills and know-how, and given the demographic decline discussed above, the development of a comprehensive and implementable lifelong learning strategy as a key driver of growth and competitiveness in a knowledge society is a priority for Russia. The Note does not examine the two-way relationship between education and poverty. In the interest of brevity and focus, the Note does not discuss issues such as distance education, textbooks, and the consolidation of rural schools, which have not only already been the target of a great deal of discussion but, being also the focus of Bank lending, are the subject of frequent monitoring as part of the Bank projects supervision process. Instead, it focuses on the principal policy measures still needed to meet the goals of education modernization and the needs of a knowledge society, and suggests some priorities for the short and medium term. We hope that the Note will be of interest to those concerned about Russian education development strategy.

2 The definition of “lifelong learning” here is the one proposed by the OECD, and “covers all purposeful learning activity, from the cradle to the grave, that aims to improve knowledge and competencies for all individuals who wish to participate in learning activities.”

3 The World Bank is currently preparing a Poverty Assessment for Russia.
Legacy of the Past

At its most distinguished, the Soviet educational system produced scientists and mathematicians of outstanding quality. However, its dominant characteristics were institutional specialization and rigidity, arising from a concept of education as training for an ordered, planned economy, and excessive centralization. Policy measures aimed at reforming both these characteristics have been carried out during the last 15 years, with decentralization much the more successful. In preparing Russian students to enter a globally competitive knowledge economy, the highest priority attaches to reforms to ensure that the educational system responds flexibly to changing economic demands. In addition, the consequences of rapid decentralization have given rise to certain policy questions that need to be addressed.

Another factor that will greatly affect all levels of education over the next two decades is the drop in fertility since 1989. At that time the total fertility rate was 2.01, roughly replacement level. Over the next 10 years it fell extremely rapidly, and in 1999 was only 1.17. Since then it has risen slightly, to 1.32 in 2002, but experience elsewhere in Europe suggests that it is highly unlikely to return to the replacement level for many years. The United Nations (UN) estimates that by 2015, there will be a fall of 38 percent and 47 percent, respectively, in the number of children in age groups 5 to 14 and 15 to 19, relative to 2000. In principle this will allow education resources to be concentrated on fewer children. Since, however, the pupil–teacher ratios are already quite low—11.5 compared with the OECD average of 14.3 – it may be difficult to channel these potential savings into improved educational quality. Indeed, the sharp demographic decline will cause acute problems for many individual schools and their teachers, especially in rural areas, which would in any case be subject to rural exodus in the normal process of economic development.

Education Modernization Program: Progress to Date

Over the past few years, the Government has put in place some important reforms as part of its Education Modernization Program, the goals of which are to improve quality, access, and efficiency. Through its development of common standards of educational assessment both of students and of institutions, the Government has tried to ensure that decentralization need not mean excessive disparity of educational outcomes. Comprehensive statements of Federal standards have been developed and widely disseminated. Flexible curricula are being piloted in secondary school to improve the relevance and career orientation of the last two years of education. This process has been assisted by the liberalization of textbook publishing. A program for modernization of teacher education has been prepared that recognizes many of the stresses that affect teachers and the educational system as a whole. In addition, the introduction of information communication technologies in education is a positive step toward equipping the education system with the means to, among other things, address some geographical inequalities.

In 2001, a Unified National Examination (EGE) for school graduation and (to some extent) for university entrance, was introduced, and is rapidly spreading across Russia from an initial 5 regions in 2001 to 47 in 2003. The EGE is designed to protect common standards, decrease corruption, and increase access for students from rural areas. In 2004, more than 800,000 general education graduates (about 70 percent of the cohort), coming from 64 regions, participated in the examination.

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4 The quality of these standards is discussed in Section 2.
Control over finance at the local level has permitted desirable democratic involvement in the selection of priorities, and at school level has, in some regions, reduced bureaucracy and allowed for teachers and parents to participate in educational decisionmaking and to advance some restructuring of schools in rural areas.

In tertiary education, there have been reforms in the teaching of economics, political science, and sociology. Russia is introducing a credit transfer system and flexible dual degree programs. In 2003, Russia joined the European Union (EU) Bologna Process, which is designed to achieve Europewide comparability and recognition of degrees and transferable credits to facilitate the international exchange of students, teachers, and researchers.\textsuperscript{5}

The Modernization Program represents a brave attempt to introduce a number of innovative ideas into a hitherto conservative education system. It is the first effort since the early 1990s to develop and implement a comprehensive reform strategy for education in Russia. The most significant impact of the Program to date has been to raise awareness among the Russian political elite of the severe problems in the educational system and of the need for reform.

However, some significant gaps remain in the modernization strategy, and the implementation of some key reforms has been uneven. For example, as discussed in Section 3 of this Policy Note, in spite of the President’s stated goal in 2000 of introducing per capita financing for general education throughout the Russian Federation, progress in the implementation of that policy has been neither uniform nor straightforward in those rare regions that have attempted it. In view of the importance of this reform, Appendix 1 discusses Russia’s experience with education financing reform, and suggests some lessons from international experience that can ensure that the policy of school autonomy does not conflict with Treasury control of public expenditures.

II. Quality and Relevance: Education for a Global Knowledge Society

Access to a high-quality system of general education forms the essential basis both for timely training that is relevant to the labor market, and for tertiary education. Improvements to all of these are urgently needed if all Russians are to have opportunities to develop the knowledge, skills, and attitudes required to prosper in a world that is increasingly based on technology, and reliant on the rapid exchange of information.

Discussions about quality are often considered abstract—even pointless—because there is no precise definition of it, although certain characteristics can be, and are, measured using a variety of indicators. Instead, it seems easier to focus on specific aspects of quality, such as relevance to the needs of the modern economy and knowledge society, flexibility, autonomy, initiative, and innovation. But these concepts, too, are hard to define. Relevance, for example, is not a concrete concept in education: in a rapidly changing environment, no one can predict what will and will not be “relevant” in the longer term, or 10 or even 5 years from now. (Indeed, especially in Russian Initial Vocational Education (IVE), the narrow focus on job-specific “relevance” has created an inflexible and largely obsolete system that is now no longer relevant to what young people need. In that sense, relevance can become a barrier rather than an enabling factor.)

Consequently, this report focuses on how to achieve a better quality of education outcomes. A basic premise is that the current discourse regarding education should, first, accept

\textsuperscript{5} Appendix 4 provides a short overview of the Bologna Process.
that a high-quality education system is made up of a wide range of high-quality components, all aiming to produce outcomes that reflect—or even anticipate—the needs of a changing society. Second, the structure of education governance should itself reflect the main features of the new economy and knowledge society: it, too, should be flexible, innovative, and responsive to change. Third, the modernization strategy should move from “policy talk” about quality to policy action and policy implementation. Following is a discussion of the elements missing from the modernization strategy.

The Need to Improve Instructional Quality in Secondary Schools through New Content (Standards and Assessment)

As discussed above, serious efforts have been made over the past several years to update Russia’s general schools; however, many problems remain. First, the system is not equipped to place outcomes of education at the center of attention—to teach toward them, to assess them realistically, and to make adjustments to the system on the basis of results obtained. This leads to a fundamental and overall problem of system incapacity for responsive and productive change. Three more specific problems contribute to and exacerbate this basic one: (a) curriculum, standards, and pedagogy are not connected to outcomes in clear, understandable ways; (b) curriculum, standards, and pedagogy do not sufficiently reflect modern ideas on what kinds of learning outcomes are relevant for a knowledge economy and civil society; and (c) teachers are not prepared to develop the new kinds of skills and abilities that Russia needs at the present stage in its social and economic development.

Issues

The system is not equipped to place outcomes of education at the center of attention.

At present, the educational system at the local, regional, and Federal levels does not monitor the outcomes of education in a thorough and effective way. Much current activity focuses on defining inputs to and processes of the educational system (finance, standards, curricula, timetables, programs for teacher preparation, methods, books), rather than on assessing the outcomes of the system (the effectiveness of materials, quality of student learning, the abilities of teachers to affect student learning). This means that efforts by educational organs (councils, expert groups, commissions, and so forth) are largely focused on trying to ensure the quality of programs before they are implemented, rather than on examining the outcomes or results from the implementation of those programs.

This makes Russian education management very different from worldwide practice, where collection and analysis of information about system performance are major tasks for educational authorities. The existing information in Russia about educational outcomes is highly fragmented and often subjective. Even though there is a growing understanding of the importance of monitoring educational outcomes, the educational authorities are poorly equipped to evaluate the successes or failures of schools in terms of outcomes. Therefore, they exercise excessive control over process and input, and do not give sufficient autonomy to schools to choose appropriate curriculum materials and to be accountable for outcomes. This explains why educational authorities want to use the results of academic contests (such as the Olympiads) and the Unified National Examination (EGE) to evaluate schools—they do not have any other instrument that is both valid (in terms of measuring the kinds of outcomes that are desired) and reliable (in terms of allowing comparisons across schools and regions). However, neither academic contests nor the EGE are designed to evaluate the quality of schools and teachers. Some
advanced regions attempt to improve their work by developing regional assessment materials, but these are often not of good technical quality, because there is still little capacity to examine the outcomes using modern approaches and thinking. Moreover, even when some information about outcomes is available, few regions have the trained personnel capable of modifying practice in response to problems identified.

This can be explained not only by the tradition of a rigid administrative management system, but also by the low capacity of Russian educational research. For many decades, Soviet educational research (like other ideology-related areas) was developed in isolation from worldwide discussions and trends. However, unlike other academic fields of this kind (economics, political science, sociology), educational research was slow to overcome this isolation, to develop modern discourse and mechanisms, and to link research and modern practice. Although Soviet education research developed a number of powerful approaches (for example, “developmental education” by Elkonin-Davydov), most educational research in the Russian Federation is old-fashioned and outdated. It tends to be policy “talk” rather than action or implementation; is rarely based on reliable, up-to-date empirical data; and is of limited use in meeting the new challenges for Russian education.

ँ Curriculum, standards, and pedagogy are not connected to outcomes.

Over the past 10 years, the Ministry of Education has expended significant resources to update school curricula and develop new standards. The results of these efforts are disappointing in terms of moving to outcome-based standards and quality evaluation. Even the structure of the most recently approved (March 2004) standards reflects outdated approaches: they are still based on a list of content elements (units of information) by subject, rather than on the expected achievements of students.

Most countries place expected learning outcomes (knowledge and competence attained by the end of each stage) at the forefront of their standards. Such standards then serve as a framework for test development. In contrast, the authors of the recently adopted Russian standards put the content description first, and do not define expected learning outcomes in sufficient detail. Such an approach orients the pedagogy toward the delivery of information. It also shapes Russian textbooks, which still pretend to be the only source of knowledge. Textbook authors pay very little attention to development of relevant materials for standards-linked student assessment and self-evaluation.

ँ Curriculum, standards, and pedagogy do not sufficiently reflect modern ideas on what kinds of learning outcomes are relevant for the knowledge economy and civil society.

It is not sufficient to orient standards toward outcomes if those outcomes reflect outdated objectives and approaches. The existing philosophy of Russian education gives a central role to encyclopedic theoretical knowledge, while most developed countries stress skills and applied knowledge in their curriculum. This is one reason why, often, Russian pupils who complete general secondary education continue to demonstrate high levels of theoretical and basic knowledge and the ability to handle known problem types, but are less prepared to apply their theoretical knowledge to fundamentally new problems.

6 In April 2004, the Ministry of Education was renamed the Ministry of Education and Science in the new structure of the Government of Russia. However, this report uses the former name throughout.

7 Although Russian students continue to perform relatively well in successive (1995-1999-2003) Trends in International Mathematics and Science Studies (TIMSS) surveys, the 2000 results of the OECD Program
This could, to a large extent, be explained by the existing narrow orientation of Russian standards, textbooks, and teaching methods. Potentially powerful pedagogical models are available, but they are poorly translated into programs and materials that can be used by regular teachers.

Teachers are not prepared to develop new kinds of skills and abilities.

Teachers are mostly prepared in pedagogical institutes where the curriculum rarely gives them deep connections with contemporary ideas about child psychology, human learning, how to accurately diagnose and remedy student errors, and how to monitor and revise their own pedagogical activity on the basis of student outcomes. The standards of teacher training are very rigid and do not contain enough classroom practice when compared with many other countries. It is common practice for the teachers to ascribe student failures to low student abilities and not to outdated teaching and learning practices. Preservice and in-service teacher education is not well linked, and systems to allow educators to share professional expertise (professional associations, publications, conferences, newsletters, online resources, and so forth) are only weakly developed. Teachers as a professional group do not have enough internal communication and interaction to support each other in the improvement of their practice. There is a shortage of state support for pedagogical innovations which are developed at the level of the school.

Recommendations

What is needed is to create a system for Russia that would assess and evaluate the outcomes of programs, and modify practices to achieve better results.

First, a “new generation” of standards is needed. The Ministry intends to develop competence-based standards that are linked to—and defined in terms of—outcomes (not merely state what teachers should teach and what should be the content of textbooks). These standards should orient the whole school system toward key competencies, knowledge, and skills relevant for a modern economy and social life. These “new generation” standards could partially respond to growing concerns about the preparation of Russian students for real life (vospitanie), and could overcome the long-standing distinction between obuchenie (subject-based teaching) and vospitanie (transmission of life-related skills and values).

The work on the new standards should be based on consultations with teachers, employers, and tertiary education institutions, and implies deep rethinking of the existing content of Russian school education. This will require significant efforts for capacity development because, at present, most specialists in curriculum development in Russia were trained in a different tradition and find it difficult to shift their focus from “teaching content” to “learning competence.” It will also require extensive research and piloting. Making these changes will not be easy: educators at all levels will need to learn new ways to define desired

for International Student Assessment (PISA) are an indication that the education system is not producing students with skills that are relevant to a real life situations. Among 31 countries that participated in PISA 2000 (27 OECD countries plus Brazil, Latvia, Liechtenstein and the Russian Federation), Russia's 15 year old students were ranked only 27th in reading literacy, 26th in scientific literacy and 22nd in mathematical literacy.
outcomes, new ways to describe them so that they are meaningful to teachers, new ways to measure them, and new ways to adapt and revise them in response to feedback. Applying and paying closer attention to standards at the local and regional level requires something additional: initiative, and willingness to take risks that at present appear to be beyond the imagination of most educational administrators working at those levels. What is needed is a high-level strategy to empower educational administrators to look deeply and carefully at data, and to make decisions based on what they observe.

Second, *based on these “new generation” standards, curriculum materials (including textbooks) and teaching methods should be developed* in concert with powerful models of pedagogy (for example, “Developmental teaching” or *razvivaiushchee obuchenie*), which grows from classical Russian pedagogical psychology. Such models need to be better translated into programs, materials, and Information Communication Technology (ICT) resources that teachers can use in everyday settings, and there must be teacher support materials (guides, examples, and so forth) for using them effectively.

A pragmatic approach to such an ambitious task could be to select, at first, a limited number of school subjects where the issue of quality is of special concern, such as social studies and technology. However, this approach might perpetuate the present “subject-bound” view of the curriculum, instead of a crosscutting view toward developing key competencies (functional literacy and numeracy, problem solving, critical thinking, and so forth) in all subjects. Russia’s results in the PISA study indicate that new skills—rather than different content or materials—are needed.

Third, in addition to end-of-school exams like the EGE, systematic *diagnostic and formative assessment of learning* should take place throughout a student’s school career, while there is still time to identify problems and offer targeted help. Moreover, the present examinations at the end of grade 9 are in urgent need of competence-linked modernization, especially if it is to assume a much stronger selective role with the planned introduction of “profiling” in grades 10 and 11.

Although the introduction of the EGE is a major achievement, it alone cannot provide the kind of timely, reliable information about progress and quality that is needed not only by students, parents, and teachers, but also by schools and policy- and decisionmakers. In addition, the EGE is still in its experimental stage and needs to have a firm basis in law before it can be considered a permanent feature of the Russian educational system.

Fourth, *data on learning outcomes should be collected and analyzed* systematically. Better indicators must be developed (in concert with employing organizations and tertiary education institutions), and instruments to assess these (using more sophisticated tools than the EGE or standardized tests) must be created and disseminated. Secondary analysis of the results of comparative surveys such as PISA, TIMSS, and the Progress in International Reading Literacy Study (PIRLS) would also provide useful insights into the relative strengths and weaknesses of Russian education. The results of these studies were widely discussed by the professional community and new approaches into education development practice were

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8 The “Quality Monitoring and Statistics” subcomponent of the Education Reform Project is working toward quantitative and qualitative indicators for education in the Russian Federation. These will be used as the basis for systematic data collection and analysis (by Goskomstat and by the new Federal Service of Education and Science Supervision being set up in 2004).
shaped. Further participation in the comparative surveys seems to be crucial for defining education policy and successful integration of Russia to global educational environment.

Thus far, indicators proposed tend to be quantitative rather than qualitative. There is awareness at the Ministry level that the quality of educational outcomes is not independent of social, economic, cultural, demographic, and geographic factors. Clearly, the choice of indicators has to take account of this complexity—but this is not easy, and could be controversial. The eventual goal should be the creation of a comprehensive, national system for monitoring the quality of education, using a variety of indicators and measurements.

Fifth, capacity building should be a priority. Pedagogical training must be closely connected to outcomes; teachers need to know in concrete terms what is expected and how they can move their students in desired directions, and they must be evaluated on their abilities to do so as part of both preservice teaching practice and through in-service experiences. Teachers, school directors, and regional administrators need to become much more proficient in collecting and using data about their programs as a means to improve learning.

Teacher preparation needs to be more flexible and linked with reforms, at both the preservice and in-service level. Federal oversight and control should focus more on the outcomes of teacher preparation (that is, how able are teachers to effect change in student thinking and reach desired outcomes?) than on the curriculum of the teacher training institutions. Moreover teachers should be trained to work not only with motivated students but with those with special needs students, and those whose learning is interrupted or sporadic because of chronic illness, family disorganization, psychological stress, or other extreme situations. The capacity building should also include training of specialists in testing and curriculum development and be aimed at achieving an international level of excellence in the field. Consideration should be given to targeting more resources to in-service teacher training because pre-service teacher training institutions are more resistant to change and only a small proportion of their graduates continue in the teaching profession.

Sixth, more accountability for outcomes requires autonomy for schools to achieve these outcomes. There is a danger that “building order” and introducing too much external quality control in Russian education will affect the unique character of Russian innovative pedagogy, which is based on teacher autonomy and creativity. Special measures to ensure the support for innovations and for sharing best practice should be undertaken.

Reform of Vocational Education

In 2002, 43.5 percent of people employed in various sectors of the Russian economy had been trained in vocational education schools and institutes, while just 23.4 percent had undertaken higher education. After falling in the early years of the transition, enrolments in vocational education have now returned to roughly their level in 1990 (Figure 1).
The need for reform of the vocational education system in Russia is probably greater than for either secondary or higher education. The inheritance of a supply-driven, tightly controlled, micromanged system designed to fit into a planned economy has proved very difficult to reshape to fit Russia’s current needs, not least because of stakeholders’ resistance to change. With the demise of the majority of State-Owned Enterprises and of the traditional settings in which vocational education has operated in the past, gaps between labor market trends and the qualifications and training provided by vocational education have widened. This growing mismatch has occurred at the very time rapid technological development and global competitiveness requires a more flexible, learning-ready, and skilled workforce.

The system has not been static everywhere. Some regions have adopted, or are in the process of adopting, a wide range of reform activities. Some, for example, are trying out various combinations of levels including secondary vocational schools, lyceums, and colleges (leading to credentials at the higher education, nonuniversity level), regional and rural education complexes, including programs from initial vocational education through college level, and vocational colleges linked to universities. However, other regions seem unable to move away from premodernization models marked by large numbers of very small institutions, many of which are focused on single occupations linked to industries that are no longer in operation. Moreover, the Ministry of Education has not been successful in disseminating best practice on a national scale. Despite the obvious benefits to regions of fashioning their own vocational systems to their needs, the lack of a clear federal strategy and a proliferation of different kinds of vocational education delivery units could ultimately reduce worker and student mobility, and transferability of credentials both nationally and internationally.

**Sources:** Population data from UNICEF TransMONEE database; student numbers from Goskomstat.
A growing number of students attend private institutions. The proportion of Initial Vocational Education (IVE) students who were fee paying doubled from 10.3 percent in 1995–96 to 20.6 percent in 2002–03. The number of fee-paying students in Secondary Vocational Education (SVE) tripled during that period, rising from 12.3 percent to 35 percent (MOE and HSE 2004). It is reasonable to assume that these institutions exhibit greater labor market responsiveness. Private institutions do, however, require regulation, to ensure that the credentials they provide are equivalent to comparable state credentials or at least complement them, and also that the information that they provide to prospective students and their parents about labor market prospects for their graduates is reasonable.

The goals of reform are twofold. First, the system must produce graduates who have skills for which there is adequate market demand, and who have nationally recognizable credentials that permit labor mobility. This requires a multilevel system with flexible internal pathways that allow movement vertically and horizontally—permitting movement into it from general education at various points, and with links to higher education. Second, students should possess the necessary basis for “lifelong learning”—the continued training and retraining that will enable individuals to respond to opportunities provided by a dynamic economy and a changing labor market. “Lifelong learning” also implies (to some extent, at least) the ability to recognize when one’s skills are turning rusty, and the awareness of information resources that would enable one to address the gaps.

Fulfilling these objectives may require reforms not only of vocational institutions, but also of general education, so that all students, regardless of academic ability, pursue appropriate curricula while acquiring the skills, knowledge, and attitudes needed for postcompulsory study, employment, and lifelong learning.

Issues

**Governance of the system.**

Until March 2004, in addition to the Ministry of Education, there were more than a dozen federal bodies that directly oversaw the operations of vocational education institutions, making it difficult for individual institutions to respond quickly to labor market needs and to share resources. The lack of clarity about Federal, regional, and subregional roles, together with opaque lines of management and a diffusion of responsibilities between Federal and local authorities, have weakened the capacity to drive initiatives and reforms forward. Plans to pass financial responsibility for vocational education to regional authorities in 2005 may make it more difficult to ensure that the nationwide recognition of credentials is retained.

Despite the large number of stakeholder ministries, few employer–industry stakeholders are yet playing an active role in vocational education in Russia. Although the Russian Vocational Education and Training (VET) system has retained its importance as a supplier of qualified labor, participation of employers, enterprises, and local communities in setting educational priorities and directions based on the actual assessment of the trends and developments in the labor market remains limited compared with many OECD countries. Vocational schools still see some employers as competitors rather than partners. The current governance structure does not create

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9 The reorganization of the structure of the Russian Government in March 2004 is expected to greatly reduce this number. The effects of this reform on vocational education cannot yet be known.
any incentives for change. Simply stated, this report concludes that the VET system cannot be reformed from within.

**Rigidity of federal professional standards and resistance to change.**

Russia has been slow to adopt flexible, competence-based, modular approaches that have been widely adopted in OECD countries. The rigidity of the Federal professional standards makes adoption of flexible and non-time-serving approaches extremely difficult. The concept of recognition of prior learning, whereby credit is given for competence that can be demonstrated no matter how it is acquired, is almost impossible to implement in an input-driven system lacking modular student-centered learning materials. Together, these features ultimately reduce worker mobility, employment flexibility, and an individual’s ability to retrain and participate in lifelong learning.

A related barrier to significant VET reform is the large number of specializations retained in the system. Until fairly recently, vocational schools trained their students for specific jobs rather than teaching them a set of transferable and key skills that could be used in a variety of occupations across a number of fields (called “job families” in the EU context). With numbers hard to pin down, an estimate of vocational specializations in 1991 was 1,250 compared with (at that time) only 440 in Germany. In April 1994, the Russian Government, recognizing the problem, reduced the number of specializations to 257, and had plans to reduce them further to 80 to 100. Recent figures, however, appear to indicate that the reduction in the number of professions (specializations) taught in the IVE sector has stalled. As decentralization takes hold, the number could actually rise because regions might introduce additional specializations. More important, the whole issue of early specialization in IVE schools should be critically reexamined and a clear strategy should be designed.

**Lack of emphasis on core transferable skills.**

In Russia, as in most countries, employers strongly prefer employees with work-related core skills (or key competencies) rather than those with very specific and narrowly defined skills. They want employees who can communicate, are numerate, can work in teams, are able to solve problems, are computer literate, and can manage change. They also want employees who are “learning-ready” to undertake the constant retraining that modern industry and employment require.

Students should graduate from vocational education with skills that equip them to (a) gain and hold employment, (b) undertake training needed throughout their working lives in order to progress in their careers, and (c) grow as individuals and citizens. At present, inadequate attention is paid within vocational education, and particularly at the IVE level, to the development of those skills.

Indeed, since these competencies could equally well be gained by retaining students in the general education stream, many education reformers in and outside Russia have pointed to the costliness of the IVE level of vocational education, its poor reputation, and the premature removal of young students from general education, and have recommended that the IVE level of vocational education be shut down. Such a radical step, however, would provoke obvious opposition from those adversely affected by it, and is likely to be politically feasible only if a case-by-case analysis demonstrates conclusively that closure is better than reform.

It should also be noted that, in contrast to most countries where employers prefer to employ graduates of general schools rather than those of vocational schools, in Russia there is
evidence of a better employment rate of graduates of at least some IVEs compared with general education graduates.\(^8\) (If confirmed by careful analysis, this might suggest the need for changes in the curricula of general education to fit graduates for the world of work and for postsecondary education.\(^8\)) In addition, there is a concern that closure of IVE institutions would cause some students to drop out of the educational system altogether.

\*  Inadequate funding of vocational education.

Funding shortfalls force vocational education institutions to earn extrabudgetary funds to stay viable. VET schools continue to have large staffs and lack incentives to cut their expenses. Despite improved state funding and increases in extrabudgetary earnings, vocational schools are not able to cover such expenses as upgrading of facilities or equipment or professional development of teachers, many of whom are in urgent need of retraining in methodology and/or content areas. Schools tend to earn about 10 percent of their budget by providing fee-paying services, but this percentage can be higher depending on schools and their activities. The introduction of a multichannel financing scheme in the future may motivate them to increase financial efficiency.

On January 1, 2005, property rights and financial responsibility will be transferred from the Federal to the regional level. The officials of the Ministry and the regions report that this devolution of responsibility will almost certainly lead to an intolerably heavy financial burden for poorer regions, and will aggravate the already difficult financial situation of VET institutions. This, in turn, will undoubtedly threaten the VET system, and will affect the provision of life-long learning and training opportunities in the regions.

\*  Russia’s large number of relatively small vocational schools with narrow specialist offerings and low student–teacher ratios is considerably higher than international practice.

Consolidation has been slow for a variety of complex reasons, many of which are social rather than educational. In 1998, 1,676,000 IVE students attended 3,934 schools (an average of only 426 students per school). By 2002 that average had increased only slightly, to 430. Such large numbers of small schools are expensive and inefficient to run for the regions and limit the flexibility, choice of studies, and future careers of young people. This issue is especially important when we consider that by 2014, due to demographic factors, it is estimated that student numbers will decrease by 48 percent. On that projection, it is possible that only 30 to 40 percent of existing Initial Vocational and Education Training (IVET) institutions will be needed by that date.

\*  An accumulated shortfall in modern equipment, facilities, curricula for new professions, and learning materials for modern vocational education.

\(^8\) This is consistent with the survey data to be presented in the forthcoming World Bank Poverty Assessment, which show that graduates of vocational schools earn slightly more than graduates of secondary schools.

\(^8\) A recent pilot project by the Russian Government (implemented by National Training Foundation) in three reform-oriented regions, in partnership with the World Bank, is in the process of developing guidelines and learning materials suitable for use in both general and vocational education. Teachers will need training to make the mental and pedagogical shift to approaches where the student’s needs are central. Dissemination of this project’s outputs will be an important task for the Ministry of Education.
Many observers have pointed out that vocational schools do not have up-to-date or even functional equipment, workshop facilities, learning materials, textbooks, and curricula. This problem is by no means new or unique to Russia, but the issue here is that the situation is still deteriorating, rather than improving. Chronic lack of investment; scarcity of teachers with experience of modern industrial, business, and management processes; and the inability of enterprises to provide help or offer well-planned apprenticeships, add up to poor-quality vocational education for many youngsters, especially in regions where the needs are greatest.

Although steady progress is being made, Russia is struggling to produce quickly enough the curriculum guidelines and corresponding learning materials needed for the “new” professions emerging as part of Russia’s shift to a knowledge-based economy. This is not just a problem of funding, but also of entrenched procedures that slow the processes of standards setting, curriculum development, and support for the production of learning materials.

**Recommendations**

The overall effect of these impediments and inherited problems is a system of vocational education with little coherence or vision, and with a lack of institutional coordination. The absence of institutional arrangements for working with employers remains a fundamental problem. There is a lack of alignment (in terms of study programs, and in particular in terms of standards for qualifications) across institutions, and remarkably little quality control. In sum, the VET system requires serious restructuring and clustering aimed at a flexible labor-market-oriented system providing for broader transferable skills and competence-based qualifications.

There is an urgent need to develop a strategy for in-depth reform of the entire vocational education and training system, including how its various components fit with each other and how they link to general and higher education. Monitoring the situation, learning from experience in innovative regions, and advising local authorities how to implement the strategy is a crucially important task for the Federal Government. Institutional arrangements for employers’ participation in VET governance should be put in place. The experience of those regions which have in many cases managed to strengthen their cooperation with employers and social partners, and where employment rates of IVET graduates seem to be relatively high should be disseminated.

Vocational education systems are expensive to run—especially when the system comprises as many small units as in Russia. The struggle to provide the modern equipment required for meaningful training of the workforce is an intractable problem. A solution much favored by some OECD countries, and in particular by the EU, is the resource center model, which optimizes use of expensive resources, equipment, and facilities, and allows for multiple sector use.

It is also the Bank’s view that, in line with international practice in OECD countries, vocational resource centers should, first and foremost, be training centers serving regional clientele (both young people and adults) in obtaining and upgrading relevant skills for the labor market. The resource centers should not become production units competing with real sectors in

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12 If smaller IVE institutions are to close in some regions, those in other (neighboring) regions may grow. But if students from regions where institutions close are to continue to have access to those vocational fields, the schools that remain open (and perhaps expand) may need to develop some sort of boarding school (internal) facility where students from other regions can stay while studying.
the regions, but rather should become centers of excellence providing high-quality training and generating demand for training and skills upgrading services.

**Modernization of Higher Education**

In common with all developed societies, Russia is witnessing a strong growth in demand for tertiary education and pressure to change the system so it can support the needs of a growing economy. The number of Higher Education Institutions (HEIs) has grown by 66 percent since 1993, reaching a total of 1,008 in 2001 and 1,046 in 2003. There has also been a growth in private HEIs from zero in 1991 to 392 in 2003, although only one-third were accredited by the Ministry of Education. Higher education in Russia is seen as a passport to success and, increasingly, students are willing to pay for that passport. By 2002, 54 percent of students in higher education were fee paying (up from 10 percent in 1995) (Figure 2).

![Figure 2: Students in Higher Education by Fee Status](image)

*Source: MOE and HSE (2004).*

In spite of these changes, the character of higher education (especially in the state sector) has remained virtually unchanged. Discussion continues about whether Russian higher education needs serious modernization or whether it simply needs more resources in order to preserve its traditional strengths. Opponents of reform often ignore the fact that higher education has developed beyond an elite system and that a new social and economic environment requires a different tertiary education system. Joining the Bologna process is a promising step towards
systemic change but it is too early to judge how that will influence the strategy and operation of HEIs. 

Issues

**Lack of transparency and consistency in university entrance procedures.**

Perhaps surprisingly for a centralized system in the Soviet period there was no national school-leaving or university entrance examination. University applicants were permitted to apply only to one institution at a time, and to apply elsewhere only if they failed in the first, often missing an entire year. This was an inefficient system, and favored those from schools with close university ties or who had received private tuition from staff at the university involved, and put students from remote areas at a disadvantage. The introduction of the Unified National Examination (EGE) in 2001 was an important achievement of the Modernization Program, and there has been a steady rise in the number of HEIs participating, from 16 in 2001 to 946 in 2004 (about 3/4 of all HEIs). However, it is not yet clear what “participation” means, and to what extent these HEIs are, in practice, prepared to use EGE results instead of setting their own faculty entrance exams. At present, most seem to continue to set their own examinations, especially in disciplines where the number of candidates exceeds the number of applicants.

**Inappropriate legal status and systems of governance.**

From a constitutional and legal perspective, HEIs are treated as government entities, subject to strict budgetary control, which severely limits their managerial autonomy and reduces opportunities for flexibility or incentives to efficiency. Within the limits permitted by the current legislation, management authority is given to a rector. The current law does not give financial responsibility or legal accountability to external bodies such as governing boards. The rector also exercises academic authority. Although he is subject in principle to decisions of the Academic Council, by whom he was elected, he chairs the Council and has a significant influence on its composition. The concept of stakeholder involvement (involvement of students, university staff, local communities, and businesses) in institutional governance is lacking. While, during transition, strong leadership from rectors was essential for the survival of their institutions, today rectors may be viewed as perhaps having too much power. This report suggests that a more flexible leadership style in HEIs would be more appropriate for the twenty-first century. Moreover, the respective roles of different levels of Government (regional and local) need to be clarified.

**Lack of flexibility and labor market relevance of courses.**

Course content in Russian universities often reflects only academic traditions rather than labor market needs. The relationship between qualifications and labor market is poor—it is estimated that fewer than 20 percent of university students retain jobs in their degree areas three years after graduation. It has also been estimated that approximately 50 percent of students are not full time, but are enrolled through distance or part-time courses. Currently, institutions are poorly equipped to respond to needs of such students because teachers are not permitted to alter the current course structure or adjust educational standards. An attempt to achieve greater flexibility through the

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13 Russia signed onto the Bologna Process in September 2003, and has taken part in the current discussions about the European Higher Education Area (EHEA) and the European Research Area (ERA), to be established by 2010. See Appendix 4.
introduction of “Bachelor Master” degrees has not been generally successful because there were no incentives for HEIs to move to this dual system. Furthermore, there are doubts in Russia about whether the dual system would improve quality. The degree of flexibility that the Bachelor degree would achieve in the Russian context as well as the arrangements for transfer from Bachelor to Master need to be explored and clarified.

Weak linkages to knowledge-based business.

Most HEIs lack either formal or informal linkages to the business community. Unlike in most developed countries, universities in Russia are still not considered major centers for research and innovation, which are regarded as the province of the Academy of Sciences. Consequently most attempts to develop technology transfer between universities and industry are not successful. Active researchers are leaving universities to establish commercial technology transfer firms outside the sector, which, in turn, is further weakening the innovative capacity of the universities and the competitiveness of Russian engineering and science education.

Need to reform the system of financing higher education.

The Federal budget and private fees provide roughly equal shares of the finance of HEIs, with income from other sources making up the rest (Figure 3). The system of public financing, through detailed itemized allocations—together with its implementation through Treasury procedures—is both rigid and inefficient. It does not allow universities to manage budgetary and nonbudgetary revenues as an integrated whole. Both recurrent and capital expenditures are financed on an annual basis without carryover from one budget year to the next, inhibiting longer-term planning for internal development.

The fee system is haphazard, and can potentially limit access for students from poorer families. In addition to fees paid by students to private and some public institutions, students commonly find themselves liable for fees for “unofficial” tutoring, for examinations, or for the use of certain facilities. Harnessing rising private incomes and parental aspirations can make a highly valuable contribution to the development of internationally competitive tertiary educational institutions, but if not adequately complemented by systems of scholarships and student loans, it can contribute to worsening income inequalities.
Russia Needs a National Strategy for Higher Education, accompanied by an enabling framework that encourages institutions to be more innovative and more responsive to the needs of a globally competitive knowledge economy and to the changing labor market requirements. The “Concept Note on the Reform of Professional Education” prepared by the Center for Strategic Research (February 2004) recognizes the need for Russia to develop a world-class higher education system in order to better to create knowledge and to improve equity. The “Concept Note” sets out a series of policies and measures necessary to achieve this ambition: to develop a flexible and adaptable tertiary education system, which will operate on the basis of undergraduate and graduate degrees; to integrate education and research institutions; to set up 10 world-class research universities; to promote science teaching and research through the establishment of science networks in leading HEIs; and to ensure the payment of special premia to talented researchers and teachers in key scientific disciplines. However, the “Concept Note” does not discuss either a strategy or an implementation plan.

The “Concept Note” is a valuable first step, but for these ideas to become a basis for a national higher education strategy, at least another three steps need to be taken.

First, these ideas should be set in a consistent framework of modernization goals. These goals should give a systemic description of the desired new quality of the higher education sector, and its new role in the economy and social sphere, that is, give a vision of the future for the higher education system. These ideas should more reflect labor market needs than traditional academic programs.

Second, this framework of goals may help to bring out those aspects of the system that have resisted modernization and thus require further innovative ideas to address them.
Third, clear indicators should be set to measure the achievement of new goals, as well as time frames. There have been many examples in recent years of governments of advanced countries undertaking major reviews of their higher education strategy, which suggest how these are best carried out.

Inevitably, there will be a hierarchy of institutions, but there is a danger that too great a focus on “world-class centers of excellence” will mean neglecting the problems of the less-prestigious universities, which the great majority of students attend. The strategy must also take into account the forecast decline in the university-age population. There will probably be a need to terminate some university programs and perhaps to close some institutions altogether. To some extent, increasing both the use of per capita financing formulas and greater university autonomy and finance formulas will bring this result about, but the process has to be coordinated.

**Strengthen institutional autonomy and clarify governance systems.**

How can governance of HEIs combine the authority of the state with their institutional independence to respond to key social and economic objectives? There is an awareness in Russia that the legal status of universities deserves immediate attention. One of the most important tasks is to increase autonomy of universities in all aspects of their work, while at the same time improving transparency and accountability in their practices and procedures. The latter can be achieved by the introduction of Governing Boards at universities that will provide external control, support internal university management structures, and ensure public transparency of university budgets and resource use.

The role of the regions in the governance of HEIs should be clarified. Useful models of evolving governance systems may be derived from other large federal systems, such as Australia, Canada, and Germany, where there is a tendency to devolve authority from central to provincial (state) governments (where it has always resided in the United States).

In developing new governance models it will be important to consider the establishment of “buffer bodies.” These are agencies responsible to the Government, with key members appointed by the Government but also including a variety of expertise and points of view. Their decisions are not directly subject to Government approval, which means that when they have to make politically sensitive decisions such as the allocation of money, they are to some extent shielded from the political pressures that a ministry in an elected government would face. Such buffer bodies have been particularly important in the UK and in Commonwealth countries. Their role in financial allocation is the most important, but there may be other buffer bodies as well.¹⁴

The reorganization of the Ministry of Education in March 2004 has created separate internal “agencies” which, if given sufficient autonomy, could develop into buffer bodies. For instance, moving higher education finance into a buffer funding agency could facilitate replacing the current inefficient and inflexible budgetary system with a system of block

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¹⁴ In England, for example, in addition to the Higher Education Funding Council there are separate agencies for monitoring and assessing the quality of courses (the Quality Assurance Agency) and for collecting statistics (the Higher Education Statistics Agency), and an independent body has just been set up for undertaking policy studies (the Higher Education Policy Institute). In addition, the national academic ICT network is run by another semi-independent body.
grants. The use of the grants would be subject to general public sector regulations, and the agency would monitor financial and academic performance against approved academic, financial, and other standards. This performance would be a factor in future allocations.

- Attract more private resources into the system, while preserving reasonable equity of access. It is both natural and desirable for families to want the best possible education for their children, and, in order to ensure the quality of its higher education system it would be advisable for the Russian government to make existing fees transparent and official. Indeed, since a university degree is an extremely valuable asset and one denied to the majority of taxpayers, equity suggests that all full-time and part-time beneficiaries of all higher education should pay a much larger proportion of the costs than they currently do. At present, richer families benefit more from public expenditures on tertiary education than poor families do. In 1998, for example, the tertiary education enrolment rate of university-age students was 6.1 percent in families in the lowest income quintile, and 13.5 percent for families in the highest.

  Experience elsewhere shows that while raising tuition fees is highly desirable, it can easily arouse political opposition, so it is important that the public is well informed about the issues. Otherwise the measures can backfire. For example, Hungary introduced a system of tuition fees in the mid-1990s, but abolished them in 1998. Ireland attempted to reintroduce tuition fees in 2003, but abandoned the attempt after public protests rendered it politically impossible. The UK introduced tuition fees some years ago in conjunction with a student loan scheme in an attempt to resolve the issue of who pays for the high participation rates in tertiary education in that country. This process has been fraught with difficulty and is a perpetual source of acrimonious debate in the media. Since most families gain economically from a shift from taxation to fees, it ought to be possible to make a politically strong case for these measures, but there will be an inevitably adverse reaction from some of the most politically articulate groups.

  If higher fees are imposed (indeed, even if they are not), great attention needs to be paid to ensuring that children from poor families are not discriminated against in a system that will remain heavily reliant on public funds. A system of scholarships and loans needs to be established. The “Concept Note” proposes student loans, but there is no elaboration of the principle. The relative merits of alternative systems are too complex to be explored here, but there is growing international experience with different kinds of student loans (mortgage and income contingent) that the Bank could make available to the Russian Government if requested. Given the political controversy that inevitably surrounds issues of tuition fees and student loans, it is important that their introduction be carefully phased in—implementing loan schemes excessively quickly may lead to practical problems that are then widely publicized, and increase media criticism (as happened in the UK.)

- Develop a Higher Education Quality Assurance System. How to balance the encouragement of excellence with the promotion of equity? Former internal quality assurance mechanisms will no longer be sufficient. The Bologna Process can be expected to impose the need to develop common European standards in order to permit student mobility. Increased autonomy must lead inevitably to the development, in Russia, of new accountability mechanisms for universities, as has happened in most OECD countries during the 1990s. These accountability mechanisms should not be based on administrative structures. The proposed new Federal service for quality monitoring could encourage the education and business communities, and civil society, to play an important role in quality assurance.
Establish the Unified State Examination (EGE) as the main mechanism for university admission. Although there are still some unresolved issues, the experiment with the examination has demonstrated that the EGE does help to improve access to higher education for students from remote areas. It also helps to make the admission process more transparent and efficient. There is a good case for moving beyond the EGE as an experiment and for making it part of the mainstream of Russian education policy. There is a need to improve organizational and test content and this could be done incrementally. It is important to note that, worldwide, there is no perfect university admission system. Some countries attempt and succeed in having university admissions regulated as part of an end of school examination but there are multiple differing arrangements with different degrees of success. Further discussion and comparison of various systems could be helpful in Russia. However, undoubtedly, the comparison between the Unified State Examination and the formal Soviet admission demonstrates that it is better to have this new system of acceptable quality, which, although not perfect, is better than the former inappropriate one.

Improve responsiveness and linkages to both the labor market and the innovation and technology needs of a modern knowledge-based economy. It is hoped that the Bologna Process and the move to a dual degree system will facilitate changes in course structure and content that will better reflect the needs of a modern economy. The proposed centers of excellence can link research, innovations, and training in a positive way, although it is important to avoid overconcentration of research talent in a very limited number of “research universities.” It is probably better to think in terms of creating “leading departments,” as is done elsewhere in Europe, (especially the UK), which need not, and ideally would not, be concentrated in a very small number of universities.

The interest and involvement of Russian enterprises, especially those far away from metropolitan areas, with local HEIs, should be greatly encouraged. This could increase the relevance of the courses to the needs of the labor market. It could also increase Russia’s research capacity and broaden regional development. The ability of Russian HEIs to attract additional finance from private sources, or funding from companies, would be facilitated by greater flexibility in the use of public finance, as recommended above. While encouraging such linkages, the Russian authorities must note, from experience elsewhere, that there need to be clear guidelines on how much patenting and entrepreneurship should be permissible for academics. Great concern is being expressed in some countries that the rapid commercialization of scientific results is inhibiting the free flow of knowledge, fragmenting research communities, distorting research priorities to the detriment of basic research, and contributing to the reluctance of leading academics to teach students. Moreover, if this process increases the inevitable disparity of income between science professors and those in the liberal arts, it will reinforce the marked Soviet biases against the liberal arts, to the long-term detriment of Russian culture.

\[15\] The Bank has supported a number of reviews of the EGE by leading international experts. In general, these reviews are positive and their recommendations have been taken into account by the EGE management team.

\[16\] It is beyond both the scope of this paper and the capacity of its authors to review whether more could be done through the tax system to encourage such involvement, but it is worth consideration.
III. Ensuring Access

Budget support for Russian education declined in the later years of transition (Figure 4), and continues to be underfinanced in comparison with not only OECD averages, but also those of countries previously under the former Soviet Union’s sphere of influence (for example, the Baltic States, Poland, and Hungary). Persistent resource problems have resulted in a backlog of unmet needs throughout the education system: renovation of schools, teacher salaries, quality-boosting measures, curricula redesign and introduction, and learning materials development being among the most important of many.

Figure 4. Education Expenditures as percentage of GDP, 1995–2002


Serious efforts have been made in recent years to increase financial support to education, from both the public and private sectors. Total financing for school education has been increased by 2.6 times in four years. However, there is growing concern about the efficiency with which these funds are used.

Issues

Regional inequalities threaten access. An inevitable cost of decentralization in Russia is a rise in inequality in the availability of resources among local governments. These inequalities are now immense, as shown in Figure 5, and there is a serious danger that they will be reflected in educational outcomes. In poorer regions, especially rural ones, access for all to education of good quality is a serious problem. There is a risk that continued exclusion from educational opportunities of good quality will, over time, become self-perpetuating for poorer social groups.
Wealth-related inequalities are growing in general and preschool education. There are also significant intraregional differences between various types of secondary schools. In fact, two education systems are developing in Russia, one for the better off members of society and the other, a system of mass education, for those who are less advantaged. As in most countries, where there are marked disparities in the quality of different local public schools, children from wealthier, more-educated families find their way disproportionately to the better schools. For example, 40 percent of 11th grade students from families in the highest income quintile attend a lyceum or gymnasium (as distinct from a general secondary school), but only 15 percent of those from families in the poorest quintile do. Only 11 percent of better-off students go to a school without a computer lab, compared to 20 percent of the poorest students (World Bank 2004). Inequalities are compounded by a rise in privately financed education, and worsened further by an increasing incidence of informal payments. This is true for vocational and tertiary education, although the share of fee-paying students is greater—and growing faster—for higher education. Consequently students from wealthier families have better academic results (as evidenced by the PISA results) and are more likely to gain places in favored universities.

Children from disadvantaged and marginalized families face poor life prospects. The effects of family poverty on access to, duration of, and outcomes of education are well documented, not only in Russia but worldwide. Lack of early childhood care and education, sporadic attendance, truancy, dropout, underachievement, and early school leaving are important warning signs of children at risk of social exclusion in later life. Children with special educational needs face many additional barriers—physical barriers as well as social and economic ones. In addition, growing numbers of children live without adequate parental care, or “in the street.” The education system, as well as individual schools, will have to adopt supportive and outreach practices that overcome these disadvantages in order to prevent social fragmentation and the creation of a disaffected “underclass” of youngsters without employable skills.

Source: MOE (2002).
Recommendations

- **Provide adequate and equitably distributed public financing.** The education reforms needed to bring Russian education to the point of equipping its people to live and work in a global knowledge economy will be possible only with a significant improvement in the mobilization of financial resources for education. Russia has still not developed a satisfactory and equitable system of fiscal federalism, which is particularly urgent for all social services, including health and education. However, the issues here are beyond the scope of this paper.

- **Improve targeting of education expenditures.** Much more could be done within the present budget. Expenditures need to be more explicitly targeted to support children with special learning needs and those from disadvantaged families. Education authorities together with social welfare institutions should identify transparent criteria for such support. Some of the currently free services, such as student meals and textbooks, should be reconsidered. These services and goods consume a significant part of the education budget, but do not contribute to greater equality. The system simply has to accept that textbooks are not free. Subsidies for textbooks should be provided to poor students, despite the publishers’ lobby.

- **Finance students rather than schools.** The traditional process of budget allocation to schools (whereby each school formulates its budget estimate by norms based on inputs [classes per topic, class sizes, size of building, and so forth]) may have worked well under a centralized system, but is now counterproductive as the basic plank in education funding. The resulting budget allocation process, which involves bargaining and discretion, is nontransparent, unpredictable, cumbersome, and unrelated to long-term strategic issues. It results in inflexible and inefficient use of scarce resources.

  The Russian government has begun to tackle the problem by committing funding through subventions to local administrations aimed at the achievement of a national standard of general education. At the same time, the government has been working with reform-oriented regions on an alternative, transparent budget allocation mechanism based on the per capita principle of “money follows the student” as a way of gaining efficiencies.

  This important step will, among other things, enable regional authorities to make resource-based decisions, for example, about rationalizing the schools network. But if, as is implicit in per capita financing, some system of parental “choice” is envisioned, there is a further requirement: the provision of accurate information to parents about options, so that their decisions can be made on the basis of reliable information rather than fads or rumors.

  The per capita system of budget allocation for education has many advantages for a country seeking to do as much as possible with limited financial resources. It can be expected to increase transparency, objectivity, and predictability in the budget allocation process; to shift the funding base from inputs to outputs; to allow better allocative choices, drawing attention to nonviable schools in a period of a falling school-age population; to increase incentives to use resources efficiently; and to increase accountability to parents and Boards of Trustees. It cannot be adopted mindlessly, however, especially faced with declines in the school-age population. Schools with greatly reduced numbers in a capitation-based financing system are likely to be faced with serious budgetary difficulties. Where possible, school consolidation should be carried out, but in some places funding formulas may need adjustment.
In regional trials to date (begun in January 1998 in Samara, with the Chuvash Republic and Yaroslavl following later), several Russian versions of per capita education financing have evolved. These versions depend on a number of factors, or adjustment coefficients, other than just the number of pupils, and take into consideration, among other regional variations, differences in location, school size, type of education (vocational or general), and special needs. However, they all maintain the most important principles of (a) determining the size of the allocation by objective and transparent means through a formula-based block grant, which is not divided into line items; and (b) devolving financial management to the school director, who becomes accountable to a Board of trustees. Such decentralization can be expected to have a positive effect. The 2000 OECD PISA study, for example, found that mean performance of students varied directly with the degree of school autonomy in budget allocation (OECD 2001).

International experience suggests that it takes some time for efficiency benefits to be felt from the introduction of per capita financing of schools. Results from these regional trials show that the impact of per capita financing is mixed at that stage. Positive gains have been made toward more effective pupil–teacher and pupil–nonteacher ratios; the number of schools has fallen into better line with the number of students; and at the school level there is evidence of an increase in development expenditure. However, the trials reveal that a number of readiness preconditions are not yet present in Russia. Among these, adequate technical infrastructure (including trained personnel), a clear and agreed policy environment, a willingness of stakeholders to accept change, and research support are, on the whole, inadequately developed. Of particular concern is that, to date, the introduction of Russian versions of per capita financing has had little impact on improving teacher salaries. This experience demonstrates that it is not sufficient merely to introduce a new financing system in the hopes that issues of access and quality of education provision will be solved. These problems require much longer term solutions such as the development of adequate regulatory frameworks and national systems of testing, monitoring and reporting as well as an increase in the overall funding available for education.

Clarify the relationship between per capita financing and the Treasury system. Devolving budgetary authority to a lower level may appear to conflict with central attempts to ensure that public finance is efficiently used. This has been an important issue in some of the reforming regions of Russia, and wide discussion has taken place not only in these regions, but throughout the Federation. While some might fear that the introduction of Treasury control of regional budgets might threaten the principle of financial autonomy for schools, international experience shows that there is no necessary conflict between centralized Treasury control of expenditure and school autonomy. See Appendix 1 for a discussion of these issues in greater depth, and for a description of the experience of per capita financing in the Russian Federation.

IV. Implementing the Modernization Program

Suggestions made in this Policy Note to move the modernization program forward can make a difference only if effective mechanisms are created to implement these innovative ideas. What should be done to “make things happen”? What are the institutional arrangements to move from slogans to reality, from policy “talk” to action and implementation?
It is not enough just to update the legal and regulatory framework to ensure that these changes actually happen and foster a new governance, teaching, and learning culture. Unfortunately, Russia has a long heritage of announcing education reforms, doctrines, concepts, and new regulations, but leaving the entrenched practices within the system virtually untouched. That can be avoided this time only if the implementation of new ideas is properly planned and institutionalized. Moreover, success in the implementation of change in a federal system, especially in a country as large as Russia, depends on the regions. Therefore there is a need to develop a number of models that are appropriate for the different cultural and economic conditions in the regions.

Early results of the implementation of the modernization program (as well as international experience) suggest that the following steps should be taken to ensure that reforms are successfully implemented:

- The modernization program should be presented as a set of innovative projects aimed at changing particular aspects of the education system.
- An action plan should be designed and approved to ensure gradual but confident progress in each project within the modernization program.
- A program of presentations and discussions will be required, not to debate the reforms but to focus on how they will be implemented.
- To reflect required changes in work practices, a new system of performance indicators should be used to assess the performance of educational institutions.
- A Supervisory Committee should be set up to supervise each innovative project. This committee should include respected people representing different stakeholders.
- Funds should be set aside for staff development, training, and institutional IT systems to meet the new requirements.
### V. Matrix of Policy Priorities

This matrix presents educational issues and policy objectives, and specific measures needed to address key policy areas in education in Russia.

<table>
<thead>
<tr>
<th>Key Policy Areas</th>
<th>Issues to be Addressed</th>
<th>Policy Objective</th>
<th>Specific Measures</th>
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| 1. Overall Considerations | **Mechanisms and instruments to monitor and evaluate the quality of system outcomes.** | To enable the Ministry to assume a monitoring and evaluating (rather than an administrative) role in education. | • Agree on qualitative and quantitative indicators for increased accountability (role of newly created Federal Service for Education and Science Supervision).  
• Develop and implement effective dissemination strategies to guide less innovative regions into their own reforms, using lessons learned in more innovative regions.  
• Introduce a system of quality monitoring.  
• Ensure more autonomy for educational institutions in academic and financial areas.  
• Develop appropriate mechanisms to ensure the participation of consumers of education services in boards of management. |
|                           | **Financing of education.**                                                             | To improve the efficiency, effectiveness, and fairness of financial allocations.   | • Develop and implement step move to per capita financing system.                                                                                                                                                |
|                           | **Equity of Access**                                                                  | To reduce social exclusion and to increase social mobility.                      | • Develop and adopt supportive programs and practices aimed at children and children from marginalized groups and children with special learning needs.  |
| 2. Secondary Education    |                                                                                        |                                                                                  |                                                                                                                                                                                                                  |
| Competence-based standards. | Need to shift the focus of secondary education from “covering subject content” to “acquiring essential skills and competencies.” | To improve teaching based on a “new generation” of competence-based standards. | Define learning outcomes in terms of competence and skills students are expected to attain at the end of stage (in close cooperation with representatives from all levels of education and employers to define competencies across the ability range). Revise 2003 standards to reflect the learning outcomes defined. Link all examinations and assessment. |
| Professional competence of teachers. | Need to enable teachers to place outcomes of education at the center of their work. | To enhance the professional capacity of teachers to provide competence-based education to their students of all abilities. | Provide teachers with good support and examples of good practice, in order to introduce pedagogy and assessment into their classrooms. |
| Vocational Education | | | Provide schools with information about relation to standards and international benchmarks. Support pedagogical development and teacher associations. Strengthen teacher networks to increase teacher opportunities to exchange ideas and best practice. |
| | | | Reform teacher pre-service education to achieve teaching outcomes. |
| | | | Reform teacher salaries to provide incentives for teachers achieving better level of educational outcomes. |
### Relevance

- Need to improve the quality (in terms of core competencies and skills) of vocational education and to link the courses offered in VET more closely to the needs of a modern, changing labor market.  
- To ensure that all students in vocational education (initial and secondary level) leave school with solid, basic, flexible skills that allow them to enter the labor market and continue to develop throughout life.

### Governance

- Need to make the structure and governance of VET system more effective and relevant to the needs of a modern, changing labor market (including provision of better mobility of labor force).
- Create a coherent, flexible, efficient, high-quality vocational education system responsive to regional labor markets.

### Higher Education

- Need to have a National Strategy for Higher Education, Science, and Innovation, and to adjust the structure and the governance of the higher education system to new economic and social conditions.
- To improve competitiveness and efficiency of the higher education system.

### Quality Assurance

- Need for Russia move to international standards of higher education and to participate in the creation of the European Higher Education Area and the European Research Area. Internal quality assurance mechanisms are no longer sufficient. Greater openness and
- To improve relevance and mobility of graduates, to increase flexibility of learning programs. To ensure alignment with common European standards.

### Actions

- Ensure Federal is not an obstacle for all IVET schools to facilitate acquisition of core competences and relevant employability skills and broad (including reducing the number of specializations).
- Reinforce labor market relevance of training provision with better planning and intensified cooperation with and involvement of social partners.
- Emphasize general rather than technical suball students, leaving more specialized and higher level vocational skills for at least the final year of secondary education or to enterprises.

- Develop a National Strategy for the entire VET system.
- Ensure adequate guidance to the regions in taking over IVET financing.
- Combine the transfer of financial responsibility with IVET network restructuring (optimization).
- Develop a national system of qualifications.

- Develop a National Strategy for Higher Education, Science, and Innovation, and to adjust the structure and the governance of the higher education system to new economic and social conditions.
- To improve competitiveness and efficiency of the higher education system.

- Introduce a new legal status and governance system for universities, ensuring greater autonomy and accountability.
- Support “buffer bodies” e.g., for higher education financing.
- Build institutional mechanisms to support linkages with research, innovation, and technology sectors.
- Develop a system of scholarships and loans using lessons of international experience adapted to the regulatory framework in Russia.

- Introduce credit transfer system
- Move to dual degree system second degrees should have order to accommodate a diversity of individual, academic and labor market needs.
- Develop an independent Higher Education Quality Assurance agency with the active participation of major stakeholders.
- Establish links with similar bodies in other countries.
<table>
<thead>
<tr>
<th>accountability for outcomes are needed.</th>
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Appendix 1

Per Capita Financing of Education in the Russian Federation: Experience and Issues

This Appendix reviews experience with implementation of a per capita financing scheme for education (based on the principle of “money follows the student”) in the Russian Federation, and makes recommendations for further development of policies to ensure the efficient and equitable allocation of budgetary resources for education in the Russian Federation.

Background

The most recent World Bank review of the education sector in Russia (Canning and others 1999) identified four major issues: (a) resource mobilization and efficiency, (b) quality and output measurement, (c) market linkages, and (d) equity and access. In 2004, all four remain matters of concern. A disappointing performance in the 2001 OECD PISA tests (of the ability of 15-year-olds to use knowledge and skills acquired in schools to meet real-life challenges) has raised more questions about quality of education and excessive reliance on memorization (OECD 2001). The crisis in initial vocational schools continues to be related partly to their lack of linkages to labor markets in an economy in rapid transition. And problems of access and equity have increased—as evidenced by growing inequalities among regions; disproportionate dropout from schools by children from poorer families; a widening gap in access to, and quality of, schools among the more prosperous urban centers and poorer urban and remote rural areas; and the rapid growth of secondary-level enrolment in private schools and selective grammar schools and lyceae for high-ability pupils.

The reasons for these problems are many and complex, but one thing is certain: the educational reforms needed to solve them will be difficult to implement without an improvement in mobilization and allocation of resources—the first of the issues identified by the 1999 sector review. In relation to education financing, the review drew attention to the fall in federal transfers to regional compulsory education systems, inefficient use of resources within schools (exemplified by a fall in student–teacher ratios, to extremely low levels of resources in some rural schools, and by a high proportion of nonteaching staff), lack of accountability of school administrators for private funds that are mobilized, lack of capacity of subnational governments to direct their own expenditures and, most serious, a crisis in teacher pay (low salaries, frequently paid in arrears). The review recommended, among other things, the introduction of per capita financing schemes, based on the principle of “money following the student” as a means of ensuring optimum use of education budgets by ensuring that pupil demand would be the determining factor in the reallocation of resources.

The Key Issue: Resource Mobilization and Efficiency

Persistent resource problems in Russian education are a reflection of the substantial fall in real GDP over the past decade, combined with a fall in public expenditure on education as a proportion of GDP—to 3 percent in 2000, compared with more than 5 percent in Poland and Hungary and more than 6 percent in the Baltic States. These problems also reflect the traditional process of budget allocation to schools, whereby each school formulates its budget estimate by using norms based on inputs (such as the number of classes per topic, the standard class size, the
number of square meters) rather than on outputs. The school then submits its estimate to the regional administration by line items. Estimates of education needs are then aggregated at the regional level. Based on strategic priorities, each region determines the actual budget allocation for education, which is often much lower than the estimates of education needs. As a result, the region (through the educational district) has to reexamine each school budget and allocate the “cut” in spending, by line item, to each school. Schools receive their allotment on a monthly basis, by line item. There is no provision for any kind of monitoring, evaluation, and feedback.

This line-item budgeting procedure limits the autonomy of school directors in making allocative choices. There is no incentive for schools to economize on particular areas of spending, since the school is unlikely to benefit from the savings. Indeed, there is an incentive for schools to inflate their “needs,” for instance, by hiring and retaining as many teachers as possible. In short, this budget allocation process, which involves bargaining and “discretion,” is nontransparent, unpredictable, cumbersome, and unrelated to long-term strategic issues. It results in an inflexible and inefficient use of scarce resources.

The government’s response to this has been to work toward a definition of (a) minimum standards, in terms of subjects and hours of teaching; and (b) the division of responsibility among the different federal and regional levels for the provision of resources to meet these minimum standards. An important step for the whole Russian Federation was taken on July 7, 2003, when the President signed the law on the “amendments to federal legal acts regarding general education funding.” This law affirms the right of Russian citizens to widely accessible and free primary, basic, and secondary (complete) general education in general education institutions, and (together with the amended law on local self-government) guarantees that the federal government will make financial provision in support of this right, through subventions to local administrations aimed at the achievement of the national standard of general education. These subventions (the amount of which is, in principle, to be determined by the minimum standards to which the Federal Government is committed) cover the salaries of teaching staff, the cost of textbooks, teaching–learning equipment and materials, and consumables and maintenance, but exclude payment for utilities. Local administrations are entitled to these subventions from the federal to local budgets to ensure that the federal educational norms (or regional norms if higher) are achieved, but can also use resources of their own and resources from other sources for this purpose.

Advantages of a Per Capita Financing Scheme

At the same time, among other government initiatives, work has been proceeding on the development and implementation of an alternative, transparent budget allocation mechanism based on the per capita principle of “money follows the student.” The choice of this alternative mechanism is based on the following expectations:

- It would increase transparency, objectivity, and predictability in the budget allocation process, and reduce the time spent on bargaining.
- It would no longer be input based.
- At the municipal level, it would lead to better allocative choices, drawing attention to “nonviable” schools, within a plan to restructure the network of schools to reflect the fall in the school-age population.
- At the school level, it would increase incentives to use resources efficiently (to the benefit of quality) and increase accountability to parents and a Board of Trustees.
In its simplest form, under this system, the allocation of a given amount of budgetary resources among schools depends only on the number of students enrolled: each school gets an equal amount per student. In practice, the formula is usually adjusted for a few factors, reflecting the location and type of school. In Russia it was agreed to apply coefficients to reflect:

- Differences in location (urban or rural)
- Differences in school size
- Differences in type of education (vocational, general, and so forth)
- Provision of specialized education for mentally retarded children
- Provision of home education for children with health problems
- Provision of enhanced education in specific subjects
- Provision of “family education.”

Although, thus, the amount that any school is allocated would depend on a number of factors other than the number of pupils it is able to attract, it would receive a block grant the size of which would be objectively and transparently determined.

An important feature of the Russian version of this alternative allocation scheme is that budget management is decentralized to the school director, who should be able to receive a block grant, open and operate a bank account for the school, and flexibly manage a school budget (including funds obtained from nonstate sources) without rigid budget headings. In all this, the school director would be accountable to a Board of Trustees at the school level, and there would be similar Boards at municipal and republic levels. Such decentralization can be expected to have a positive effect: the OECD PISA study found that mean performance of students varied directly with the degree of school autonomy in budget allocation (OECD 2001:Table 7.11).

**Experience with the Introduction of Financing in Russia**

The pioneers in the introduction of the new per capita financing scheme in the Russian Federation have been Samara and Yaroslavl Oblasts and the Chuvash Republic. Transition to per capita financing of preschools and general and initial vocational schools began in Samara in January 1998. As the scheme has operated so far, the regional budget provides each school with a formula-based block grant, which is not divided into line items. This grant is confined to salaries, operational expenses, and minor repairs, and (for initial vocational schools) social payments to pupils; however, the purchase of equipment and payments for utilities and renovation of buildings are funded from municipal budgets, outside the per capita financing framework. Schools have their own accounting offices and bank accounts. The main determinants of the regional budget allocation to a school are the number of pupils, the location of the school, and the number of complete classes (of 25 students in a town and 15 in a village) that it has.

Formal responsibility for schools in Samara rests with municipalities and educational districts, but the regional Department of Education retains a strategic overview, making policy proposals to local authorities and operating a regional school bus program. The Department tries to mitigate any negative consequences of the new financing system by, for instance, supporting moves by redundant teachers to a school in another village.

School directors have a high degree of independence: they draw up a budget, which is then approved by the relevant local authority. They are able to redistribute expenditures among
line items, and can use nonbudget funds for any purpose, including bonuses for teachers. Only 30 percent of general schools have their own Boards of Trustees, while 50 percent work with district-level Boards. Such Boards are responsible (together with school directors) for school management, including the planning and monitoring of expenditures. The main constraint on efficient implementation of per capita financing in Samara is a lack of the necessary budget–planning skills among local authority staff, school directors and accountants, and Board members.

Since 2001 all general schools in the Chuvash Republic have also been funded through a per capita financing scheme. In 2002 these numbered 643, including 49 primary schools, 170 basic schools (including those for students with special needs), and 424 secondary schools (including four lyceae and gymnasia). The budget allocation to any school covers two types of expenditure—for teaching and maintenance. The allocation for teaching depends on the total number of students; the number of students receiving special or remedial education, home education for children with health problems, or enhanced education in specific subjects, or “family education”; the number of external students; and the size, type, and location of the school. The allocation for maintenance depends only on the number of students and the size of the school.

From 2001 to 2003, funds for schools were channeled through local authority budgets, but from 2004 only utility costs will be financed in this way. Educational expenses, such as salaries and the cost of textbooks, technical aids, and materials will be financed from the regional budget. Municipalities and district authorities are formally responsible for decisions on closure of nonviable schools, but in practice the regional Department of Education, which also operates a school bus program, takes the strategic decisions. School directors are free to use extrabudgetary funds in any way that they like, and have a lot of flexibility in their use of budgetary funds. So far, in contrast to Samara, only a minority of schools are legal entities.

Yaroslavl has been implementing per capita financing of general schools only since January 2003. Salaries and current expenses, financed from the regional budget, are covered by the per capita financing (PCF) scheme; maintenance and utilities, funded from municipal budgets, are not.

The formula uses five adjustment coefficients to modify the per student allocation, as follows:

- Low-enrolment rural schools
- Provision of advanced educational programs (in lyceae, gymnasia)
- Provision of preschool programs
- Adult evening classes
- Provision of remedial programs for disabled students.

All schools in the Oblast are legal entities, receiving regional funds in the form of block grants, for which school directors are responsible. Larger schools have their own accounting offices. Shortage of budget-planning and accounting skills is a problem, but a team has been touring districts for three months, training school directors and chief accountants.

So far evidence on the impact of the per capita financing scheme (reviewed in Appendix 3) is mixed. Only in Samara Oblast has experience with the scheme been long enough for some evidence of positive impact to emerge. In particular, the number of schools and classes has fallen in line with the number of pupils, and pupil–teacher and pupil–nonteacher ratios have increased
significantly. At the school level, there are also examples of an increase in development expenditure and of increased ability to obtain nonbudget funding. However, there is no evidence of a dramatic impact on salaries, which have fallen in real terms since 1997.

Implications of the Budget Code and Treasury System for the Financing of Education

Most OECD countries rely on Treasury systems\textsuperscript{17} operated by their Ministries of Finance to manage their government finances. Such systems (often centralized) process payments and provide comprehensive accounting, fiscal reporting, and financial management services for central governments. In advanced economies, networked computer systems integrate all these functions for the finance and line ministries, and may include modules for budget preparation, debt management, extrabudgetary funds, local governments, and so forth. Moreover, almost all the former republics of the Soviet Union have introduced Treasury systems, and most have made some progress in setting up Treasury payment systems and basic Treasury single accounts.

In Russia, the basic principles of the Budget Code and of the Treasury system, which began operation for Federal education expenditures in 1998, include the following:

- Treasury offices are the cashiers of all budget institutions, executing payment from budget funds on their behalf.
- All extrabudgetary revenue of such an institution is included in its single budget account.
- Budget institutions draw up budgets in accordance with the established functional and economic classifications, with a quarterly breakdown.
- Budget funds can be reallocated among sections, subsections, targeted categories, and types of expenditure within a limit of 10 percent of the total allocation.

There are several models of Treasury operation at the subnational level. Under the first (already applying to Rostov oblast and Taymir Autonomous Okrug), the Federal Treasury performs some or all Treasury functions for subnational governments. Under the second, some subnational governments (including the Chuvash Republic), have established their own Treasury system at the regional level with the coverage of both regional and municipal budgets. A third approach envisions creation of independent regional and municipal treasuries.

From 2001, the possibility that the introduction of Treasury control of regional budgets might threaten the principle of financial autonomy for schools has been widely discussed in Russia. Three main issues have arisen:

- The large number of line items or subheads to be included in a school’s budget, according to the Budget Code, would be detrimental to flexibility.
- The nature of the “approval” of school budgets—at the regional level the Treasury allegedly checks a priori that the allocation of funds among categories is in line with prescribed norms.
- The need to obtain permission from the Treasury for reallocation of funds among categories and quarters.

Lessons of International Experience

\textsuperscript{17} See Potter and Diamond (2000) for further discussion of the issues involved in building Treasury systems in economies in transition.
Before discussing the issues that have arisen or possible policy options to improve the impact of the new financing scheme on the efficiency of resource allocation and to reconcile Treasury control of regional budgets with school autonomy, it might be useful to look briefly at international experience in this field. In 1999, UNESCO published a comprehensive review of formula funding in schools (Ross and Levačič 1999), including four case studies (Australia, England and Wales, the United States and Canada, and New Zealand). All of these are examples of the “radically decentralized” approaches to educational administration, on which the per capita financing scheme for Russia is modeled. The proportion of a school’s budget that is determined by a formula differs among countries (and within countries), but in all cases the school has direct control over that part of its budget. This does not mean that education is unregulated, however. For instance, Table A.1.1 shows the regulatory framework, within which formula funding plays its part, which has operated in England since 1988.\footnote{For a description and critique of recent changes in the formula funding system in England (which do not affect the principles underlying Table Appendix 1.1), see Johnson (2003) and BBC (2003).} This is a particularly useful model for Russia in its efforts to implement a scheme with many of the same features.
### Table A.1.1. Constituent Elements of School-Based Management in England, Post-1988

<table>
<thead>
<tr>
<th>Stakeholders to Which Decisionmaking is Decentralized</th>
<th>Management Domain for School-Based Decisionmaking</th>
<th>Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School governing body:</strong></td>
<td><strong>Budget:</strong></td>
<td><strong>Use of resources:</strong></td>
</tr>
<tr>
<td>- Responsible for managing the school</td>
<td>- Schools manage their own budget for almost all their needs.</td>
<td>- Financial audit</td>
</tr>
<tr>
<td>- Delegates day-to-day responsibility to head teacher.</td>
<td></td>
<td>- Teacher qualifications, pay and conditions nationally set with increased local flexibility</td>
</tr>
<tr>
<td><strong>Parents:</strong></td>
<td><strong>Physical resources:</strong></td>
<td>- National employment laws</td>
</tr>
<tr>
<td>- Elect parent governors</td>
<td>- 2 categories of schools: (a) those owned by local authority have “tenant” responsibilities, and (b) others control all assets.</td>
<td>- No limitations on class size</td>
</tr>
<tr>
<td>- Have some choice of school.</td>
<td></td>
<td>- No minimum space rules</td>
</tr>
<tr>
<td><strong>Local authority:</strong></td>
<td><strong>Staffing:</strong></td>
<td>- Health and safety legislation.</td>
</tr>
<tr>
<td>- Sets overall budget within central government limits</td>
<td>- Determined by governing body, the legal employer.</td>
<td><em>(Product specification:)</em></td>
</tr>
<tr>
<td>- Draws up local management scheme</td>
<td></td>
<td>- National curriculum</td>
</tr>
<tr>
<td>- Responsible for special education, admissions policy, capital program, property maintenance, central services, and so forth.</td>
<td><strong>Market conditions:</strong></td>
<td>- National tests and other performance indicators</td>
</tr>
<tr>
<td><strong>Business community:</strong></td>
<td></td>
<td>- Inspection of educational standards and quality</td>
</tr>
<tr>
<td>- Involved in local training, education action zones</td>
<td><strong>Curriculum:</strong></td>
<td>- Minimum school hours</td>
</tr>
<tr>
<td>- Co-opted as school governors.</td>
<td>- Schools have discretion on how to teach and organize the national curriculum.</td>
<td>- Target setting.</td>
</tr>
<tr>
<td><strong>Students:</strong></td>
<td><strong>Performance:</strong></td>
<td><em>(Market conditions:)</em></td>
</tr>
<tr>
<td>- School admits students according to its admissions policy.</td>
<td>- Schools must set targets for national test and public examination results.</td>
<td>- Exit and entry—new schools, school closures, change in maximum number of students must be approved by Department of Education</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Information about school performance is published</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Parents have some choice of school</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Admission policies more permissive—more schools can select by ability.</td>
</tr>
</tbody>
</table>

**Source:** For Table A.1.1 and text: Levačić (1999:Table 8.1).

As Table A.1.1 suggests, formula funding in England gives schools a financial incentive to recruit students, and gives parents choice of school (subject to a place being available and the child meeting the admission criterion), and thus is an essential component of the “quasi-market” for schools. The creation of a national curriculum and of an elaborate national testing system, combined with national publication of test and examination results and regular inspection of schools and publication of inspectors’ reports, was intended to stimulate autonomous schools to improve quality, in order to recruit more students and hence increase their funding.

Delegating budget decisionmaking to the school level was a major innovation, but has been less controversial than other aspects of the scheme (such as the details of the formula, the “league table” of examination results, and confusion over the complex rules concerning other channels of funding). Certainly, the concerns that have arisen in Russia about possible Treasury or Finance-Ministry interference in the details of school budget setting have been absent in England (and in the other countries covered by Ross and Levačić [1999]). The main budgetary problem is adjustment of a school’s total budget share for differences between the estimated and actual numbers of students. The budget share, based on estimates, is announced in March (a few
weeks before the beginning of the fiscal year), students are newly recruited at the beginning of the school year in September, and a national census of students is carried out in January. Budget shares are not changed during a school year, but are adjusted from year to year to reflect differences between estimates and outcomes. Schools are allowed to carry forward surpluses and deficits\(^{19}\) into the next fiscal year, and they can keep all nonbudget income earned (mainly from renting premises or from sponsorship). As in Russia, schools must invite competitive tenders for services such as building, maintenance, catering, and sports and leisure management. And all schools have the right to open their own bank accounts for their delegated budgets.

Among the Central and Eastern European Countries reviewed in Fiszbein (2001) and Davey (2002), the Czech Republic has perhaps moved furthest toward the kind of formula funding scheme for schools that is envisioned in Russia.\(^{20}\) A formula is used only for the centrally funded salaries component of school budgets, as follows. The number of pupils in the autumn of each year is used to calculate the “normative” (or efficient) number of teaching and nonteaching staff, and hence the fund for wages. A school director can distribute this wage fund, based on normative numbers of staff, as he or she chooses—either employing the maximum number at a low average wage, or reducing the number and increasing wages. The municipalities are responsible for funding the other expenditures, current and capital, of basic state schools and kindergartens, but local conditions rather than formulas usually determine the amount allocated to each school. Schools can keep such funds that have not been used and carry them over to the following year, and can even use them for extra remuneration if necessary. However, if they do so, the central government is likely to reduce its contribution to the remuneration fund by a similar amount. Revenues from the sale and rental of central government property (which many school buildings are) must be handed over to the state budget, but in the case of municipal property, municipalities usually let schools use such revenues in a flexible way—for instance, for repairs and maintenance or the purchase of teaching materials. Although there is no evidence of Finance Ministry interference in school budget preparation or of inflexibility in budget use, detailed line-item budgeting does cause some problems in the Czech Republic. For instance, Krátký and others (2002) raise the question of how to classify for budget purposes a tape recorder that the director uses in the morning to listen to the radio news and that is also used in music classes, or a photocopier that is used for general purposes but also to copy parts of textbooks, and so forth.

Another transition country that has implemented a decentralized per capita financing (PCF) system is Armenia. Over 300 pilot schools have been granted a new autonomous legal status and receive per-pupil funding on a lump-sum basis. A very simple formula is being used, with the allocation to a school depending only on the number of pupils and its location. Schools have enjoyed their new flexibility and autonomy, in spite of some initial problems. They have also enthusiastically participated in the School Improvement Program, which awarded funds for autonomously developed projects on a competitive basis. The associated objective of school rationalization and efficiency improvement seems to have been more elusive, however.

In summary, this brief overview of international experience shows that there is no necessary conflict between centralized Treasury control of expenditure and school autonomy

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\(^{19}\) Within reason. A school with a large and persistent deficit becomes a candidate for closure, and surpluses may be a sign of inefficient management.

\(^{20}\) Fiszbein covers Albania, Bulgaria, the Czech Republic, Hungary, Poland and Romania; Davey covers the Czech Republic, Hungary, Poland, and Slovakia.

\(^{21}\) See Hendrichova and others (2001), and Krátký and others (2002) for detailed descriptions of the Czech system.
(including school own bank accounts), and draws attention to some important aspects of policy for Russia. In particular, it highlights the danger of expecting the introduction of a simple new financing system to solve all the problems facing the education sector described at the beginning of this Appendix. For instance, competition among autonomous schools will not, on its own, result in an improvement in quality: it has to be supported, as in the English example in Table A.1.1, by the building up of national systems for curriculum, testing, and publication of each school’s test and examination results, and of the regular reports of school inspectors. And, if such competition is not to result in a further deterioration in equity of access and outcomes, it has to be modified by allocation formulas that favor recruitment of and payment of special attention to students with physical, intellectual, or socioeconomic difficulties.

Outstanding Issues

Two key sets of outstanding issues are discussed here:

- Those issues that have affected the smooth introduction of per capita financing in Russia; and
- Perceived problems in relation to budget flexibility and school autonomy because of the introduction of the Treasury system and the Budget Code.

Implementation of the Per Capita Financing Scheme

In general, six factors determine whether conditions are favorable for successful implementation of a per capita financing scheme:

- **A clear and agreed policy environment**, with explicit objectives that are intelligible, prioritized, and widely accepted.
- **Adequate technical infrastructure**, particularly accurate information on school enrolments by grade level; enrolment in specialized courses; important student characteristics such as socioeconomic background, language fluency, and educational achievement; and school site features such as size, location, and running costs.
- **Transparency and open dialogue**. In addition to the Boards of Trustees at the school level, municipal, regional, and national forums (including political leaders, policymakers, administrators, school directors, teachers, teacher organization representatives, and members of school Boards) should engage in continuous dialogue.
- **Willingness to accept change**. There will be “winners” and “losers” under the new system. A willingness to change therefore needs to be generated among stakeholders well in advance of full implementation of the system.
- **Resources for implementation and maintenance**. Per capita financing formulas are not set in stone—they will need constant updating. They should be as simple as possible in the interests of minimizing the costs of data collection and analysis.
- **Research support**. Three different types of research are needed: applied research, to establish per-student costs for different levels and types of programs; educational policy research, to monitor the impact of the system and to suggest useful changes in formulas;

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22 See Ross and Levačić (1999:252) for further discussion.
and basic research on the links between resource usage and learning outcomes at the school level, to inform national-level decisions on resource allocation.

Many of these preconditions are not yet present in Russia. The recent attempts to define minimum educational standards and the responsibility for providing funds to meet those standards are a step in that direction, but further steps are needed. The need for suitably trained technical staff, and for adequate computer hardware and software, is not yet met. The process of training stakeholders for transparency and open dialogue, and for management of the system, has hardly started, nor have the building of institutions, such as Boards of Trustees, and the clear and participatory planning needed to promote willingness to change. Resources for implementation and maintenance of the system and for research support are also inadequate (although capable researchers are available).

Experience so far with per capita financing of schools in three regions also suggests (as does international experience) that it takes some time for the efficiency benefits of the system to be felt. Only in Samara Oblast has experience with the scheme been long enough for some evidence of positive impact to emerge.

**The Treasury System and the Budget Code**

In April 2003, a conference on the “introduction of formula-based schools funding under Treasury control,” in Togliatti, Samara Oblast, identified several problems for per capita funding arising from the introduction of Treasury control:

- A decrease in the autonomy of schools and in their flexibility in use of funds;
- A difference between the legislative and regulatory frameworks of Treasury control and the reality of its operation, which hampered the implementation of per capita funding schemes; and
- An insufficient level of skill among school administrators–accountants and regional and municipal officials for the introduction of these new financial models.

The conference offered the following proposals for consideration by the Duma Committee on Education and Science, the Ministry of Finance, the Ministry of Education, and regional and municipal administrations and Departments of Education and Finance:

- To adopt federal legislation that ensures by 2005 that federal budget subventions are available to general education institutions on a per capita basis;
- To remove school extrabudgetary funds from regulation through Treasury control (the Bank would not support this proposal)\(^\text{23}\);
- In each of the seven federal districts, to form a network of schools that would pilot the introduction of per capita funding under Treasury control;
- To ensure the development of federal legislation for effective financial support of education at the municipal and school levels;

\(^{23}\) This is a potentially dangerous recommendation. In a properly functioning Treasury system extrabudgetary funds should be part of a school’s budget and be managed by the Treasury.
• To amend the Budget Code in such a way as to ensure a smooth transition to per capita funding and school autonomy;

• To speed up the development and implementation of training and retraining programs for regional, municipal, and school administrators, taking advantage of lessons learned in the World Bank Education Reform Project pilot regions;

• To make available to other regions information on the progress achieved by ERP pilot regions, including the development of per capita funding under Treasury control;

• To recommend that the Ministry of Education hold annual conferences on the introduction of new financial mechanisms and school autonomy.

In general, the extent to which Treasury systems have been compatible with school autonomy in the regions that are implementing per capita financing depends mainly on the flexibility with which treasuries have approached their role. In the Chuvash Republic and (after some initial difficulties) Yaroslavl, treasuries seem to have accepted that they have a technical and not a policymaking role, and that the system is working reasonably well. In Samara, however, more work will be needed to arrive at a workable solution.

Promising Policy Options

• Develop plans to ensure the smooth introduction of the per capita implementation scheme in the Russia Federation.

The policy implications of implementation experience so far are as follows:

  o It underlines the importance of the new law guaranteeing sufficient state expenditure, through subventions from the federal to local budgets if necessary, in support of minimum standards. The per capita financing system cannot achieve efficiency and quality improvements if the total amount made available for education is inadequate. This is one of the lessons of what has happened to teachers’ real wages in Samara. The new law on subventions needs to be implemented and carefully monitored. After more than a decade of financial crisis, the funds needed for renovation of schools, and for other quality-boosting purposes, are substantial. The number of school-age children is falling and prospects for GDP growth are good but, even so, it will be important to achieve the State Council’s target of increasing public expenditure on education as a proportion of GDP from 3 percent in 2000 to 4.5 percent by 2006.

  o “Quasi-markets” in state-provided education can be dangerous without an adequate regulatory framework. A national curriculum and testing system, combined with national publication of test and examination results and regular inspection of schools and publication of inspectors’ reports, is needed to stimulate autonomous schools to improve their efficiency and the quality of the education that they provide. Exit, entry, and school size also cannot be left entirely to the market; who is responsible for making decisions about these things and the criteria to be used have to be clear. With autonomous schools, financial audit becomes even more important, and systems for this have to be developed.

24 That is, to reduce the number of line items and make it easier to reallocate funds among them.
Some regulations need to be abolished, however—for instance, limitations on class size—to allow the flexibility that the system needs. And the precise extent of local flexibility on teachers’ pay and conditions needs to be defined.

- The institutions needed to make the per capita financing system operational, particularly the school-level Boards of Trustees and the mechanisms to strengthen the role of parents and to ensure school accountability, have to be created and/or strengthened. The stakeholders to whom decisionmaking is decentralized under the PCF system also need to be trained. All three regions report a lack of budget-planning skills among school directors and accountants. Members of Boards of Trustees and local authority staff need similar training, and parents need to be aware of how the new system works. Particularly in the case of vocational schools, links with the local business community need to be built up.

- There are local variations in the formulas being used for allocation of funds. As long as they are consistent with the “money-follows-the-student” logic of the new system (and with the equity objective), it may not matter much. In England, for instance, different local authorities use different formulas. But some federal overview may be needed here.

- The experience of the pilot regions to date demonstrates that, although education resources are decentralized to the municipalities, adjustment coefficients are not working well. Consequently, school budgets continue to be based on a formula that, if used strictly, does not cover basic educational services in some schools. Therefore, per capita financing systems are still implemented only on the municipal level.

A 10-step implementation plan for the per capita financing scheme in the three regions was developed by the regions and the World Bank in 2001, as in Table A.1.2.

**Table A.1.2. Ten-Step Implementation Plan for the Per Capita Financing Scheme**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Adjustment of the legal and regulatory framework</td>
</tr>
<tr>
<td>2.</td>
<td>Development of a methodology for computation (e.g., adjustment coefficients)</td>
</tr>
<tr>
<td>3.</td>
<td>Analysis/auditing of the budgetary allocation system</td>
</tr>
<tr>
<td>4.</td>
<td>Development of software to compute per capita values</td>
</tr>
<tr>
<td>5.</td>
<td>Purchase equipment to support implementation of the scheme</td>
</tr>
<tr>
<td>6.</td>
<td>Development of learning material for training in financial management</td>
</tr>
<tr>
<td>7.</td>
<td>Training needs analysis</td>
</tr>
<tr>
<td>8.</td>
<td>Training and retraining of regional and municipal administrators and school directors</td>
</tr>
<tr>
<td>9.</td>
<td>Implementation of school autonomy</td>
</tr>
<tr>
<td>10.</td>
<td>Piloting the per capita scheme in a number of municipalities/schools.</td>
</tr>
</tbody>
</table>

*Source: World Bank (2001).*

Some of these steps (1, 2, 3, 4, and 6) were for implementation at the Federal level, others at the regional–municipal level (5, 7, and 8), and others at the regional–municipal and school level (9 and 10).

The Federal Ministry of Education could usefully convene a meeting of the three regions currently implementing per capita financing of schools to review the progress of this
implementation plan, with particular reference to the six policy recommendations made in the previous section.

Such a meeting could also lay the basis for disseminating the scheme to other regions, which should now proceed as quickly as possible.

- Harmonize the operation of the per capita financing and school autonomy policies with the Federal and Regional Treasury systems.

There are three possibilities to be considered for policy in this area:

- One is that of a series of local compromises—agreements at the regional level between the Education Department and the Finance Department/Treasury, along the lines of those struck in the Chuvash Republic and Yaroslavl. This is useful in the short term, but does not provide a long-term solution for the Federation as a whole. It would be an extremely wasteful path to follow, diverting the efforts of busy education professionals from increasing efficiency and quality toward lengthy and often frustrating negotiations with their counterparts.

- A second possible option is to move toward a change in the status of schools (and other public social service institutions). Such institutions would become a new type of legal entity—eligible to receive budget financing allocated on the basis of capitation or a fee for services—to provide additional services for private fees and to enjoy some operational autonomy. This might be similar to the English school-based management model (within a careful regulatory framework) described above. A senior official in the Ministry of Finance announced in October 2003 that the Budget Code would indeed be amended to transfer some entities from the status of budget institutions. However, this will be politically controversial and could take some time.

- The third possible option is to develop national guidelines for regional Treasury control practices. The Togliatti conference recommendations could be a starting point for this. A streamlining of budget classifications, planned for 2005, will be helpful to this process, but meanwhile national guidelines are needed to rein in overzealous local budget administrators who, according to a senior federal Finance Ministry official, are at the root of the problem—being even more restrictive than the Budget Code (the framework for the operation of subnational treasuries) requires. Whatever progress is made with other reforms, the development of such national guidelines should be an urgent priority. Without them, it will be much more difficult for the new per capita financing schemes to get off the ground.

As for the implementation of the recommendations concerning the Treasury system and the Budget Code, the most urgent task is the drawing up of national guidelines for regional treasury control practices. This is a matter for the Ministry of Finance, which is very much aware of the problem. Establishment of a committee, including representatives of the two line ministries most affected (Education and Health), may be the best way forward.
Appendix 2

The Impact of the Per Capita Financing Scheme

The evidence on the impact of the per capita financing scheme so far is mixed. In Samara, where it has been in operation for more than five years, there is evidence of positive impact on some efficiency indicators. The number of schools and classes has been reduced in line with the fall in the number of pupils, and the number of staff has fallen faster, yielding a significant increase in pupil–teacher and pupil–nonteacher ratios. Although women continue to dominate the profession, the proportion of over-50 teachers has remained low. However, teachers’ real wages fell during 1997–2003, in spite of a 17 percent reduction in staff numbers. Total expenditure on education in Samara rose by only 6 percent over this period, allowing only a 9 percent increase in spending on salaries, and squeezing the resources available for nonsalary and capital expenditure. Nonsalary expenditure per pupil rose by only 14 percent, in spite of a 16 percent reduction in the number of pupils, and capital expenditure per school fell. There was a shift in the pattern of financing over the period, with a decline in the proportion funded from the regional budget, and an increase in the importance of municipal and nonbudget funding.

There is encouraging evidence from individual schools of increases in the number of students per class and in pupil–teacher ratios, and of increases in the proportion of expenditure aimed at school development. In one school, nonbudget funding rose from just over 2 percent of the total in 2000 to over 12 percent in 2002. These funds were spent on in-service teacher training (16 percent), computer class equipment (51 percent), expansion of rabbit farming (4 percent), additional support for socially unprotected children (19 percent), and materials for making furniture (10 percent).

In the Chuvash Republic, it is too early to expect any dramatic impact from the recent introduction of per capita financing of schools. So far, there are no signs of improvement in indicators of educational efficiency. The number of teaching and nonteaching staff has been falling, but more slowly than the number of pupils. As a result, both the pupil–teacher and the pupil–nonteacher ratio have fallen in recent years. Schools and class sizes have been getting smaller. There are no signs of success in recruiting younger teachers—the proportion of teachers over 50 years of age has been increasing—and the teaching profession in the Republic is still predominantly female. The lack of success in recruiting younger teachers and the continued overwhelming reliance on female teachers are related to trends in the region’s labor market. Although teacher salaries more than tripled during 1997–2002, regional average salaries increased even faster. A major indicator of success for the per capita financing scheme would be a narrowing of the gap between salaries inside and outside the education system. An increase in pupil–staff ratios will probably be needed for that purpose.

Revenue for, and expenditure on, education have recovered well from the 1998 financial crisis. In real terms, they show a 32 percent increase during 1997–2002. The share of salaries in total expenditure has been held at around 60 percent, and although the share of nonsalary current expenditure has fallen recently, it is higher than in 1999, and the share of capital expenditure has risen particularly fast since then. As a result, nonsalary current expenditure per pupil and capital expenditure per school have reached record posttransition levels. Nonbudget revenue has also risen fast, maintaining its share of total revenue (even when in-kind items are excluded). These trends are encouraging, but a few more years’ data are needed before the financial impact of the new funding arrangements can be isolated.
In Yaroslavl, experience with the per capita financing scheme has been even shorter. Schools are happy with the new system, which they see as a means of improving quality: by attracting more pupils and hence more finance they hope to increase teacher salaries, and thus to recruit and retain more qualified teachers, and to spend more on maintenance. Their attitude is favorably affected by the 40 percent increase in school budgets in 2003, though this may not be connected with the new system. Some negative side effects may result: discussions with regional and municipal officers and school directors and staff in September 2002 revealed that one school was already eliminating special classes for students with learning problems, because of their high cost and low enrolment, and the future of special programs in music, theatre, and art (open and free of charge to all children in the community regardless of which school they attend) was in doubt.
Appendix 3

The Treasury System, the Budget Code, and the PCF Scheme:
Regional Experience

In Samara, at a meeting in May 2003, attended by a federal Deputy Minister of Education, the Head of the Department of Education and Science in Samara and his staff, and the Head of the Department of Finance of the Samara Region, the broad outline of a compromise system was agreed to be feasible, as follows:

- A school receives a total allocation of budget funds (block grant) based on the per capita formula.
- The school director, together with its Board of Trustees, works out an itemized budget for the use of these funds, for approval by the Department of Education.
- The school sends this itemized budget to the Department of Finance for approval.
- The Department of Finance approves the budget for execution by the Treasury.
- The school director and Board of Trustees are able to make changes in the allocation of the budget at agreed intervals, with the approval of the Treasury.

However, various details of the system remained to be formalized in an agreed document setting out the principles for the operation of Treasury control in relation to autonomous schools in Samara.

- The first is the number of line items or subheads to be included in the budget: the Education Department would like these to be as few as possible, in the interest of flexibility.
- The second is the nature of the “approval” of the budget by the Finance Department: it is understood that this would be a formality, the structure and content of an autonomous school’s budget being a matter for the head teacher and the Board of Trustees, but this needs to be confirmed.
- The third is the ease or difficulty of changing a budget once it is agreed: this is partly a matter of the number of subheads, but also depends on the procedures, and the intervals at which changes can be made.

In the Chuvash Republic the situation is already better. Regional and municipal treasuries seem to give sufficient flexibility to schools to prepare and manage their budgets without affecting their autonomy and without compromising the overall fiscal sustainability of the consolidated budget of the Republic, as follows:

- Arrears of wages and payments for utilities have been eliminated.
- Schools prepare their own budgets in line with the PCF formula, and such budgets are approved by the Ministry of Education at the raion (district) level.
- Quarterly limits, based on the budgets prepared by the schools, are then issued by the relevant treasury: applications to change the quarterly budget (including changes in budget categories, transfers among items, and postponement of expenditure to later in the year) are considered once a quarter, and typically it takes only from one to five business days for the treasury to approve such changes.
- Nonbudget revenue of schools is also under Treasury control.
Some difficulties still remain in the Chuvash Republic, chiefly because there are numerous categories in the budget: instead of one utilities line, for example, there are separate lines for heating, hot water, and electricity. Each of these items is a matter of Treasury control. Nonetheless, the Chuvash experience may be of interest to other regions about to adopt the per capita financing system.

The same is true of Yaroslavl. As already described above, it introduced per capita financing of schools in 2003. Treasury control of general schools (financed from the regional budget) has already operated for three years in Yaroslavl town; federally financed initial vocational schools have worked with the Treasury control system for eight years. The experience of the vocational schools has been particularly instructive. In the early years, rigid line-item budgeting was enforced: no redirection of funds within the budget was allowed, even if it affected a school’s capacity to deliver an acceptable education (for instance, diversion of funds to repair a broken pump). The Department of Education redistributed funds “illegally” and was taken to task by the Treasury, so it took the Treasury to court. It won seven cases against the Treasury, and finally an appeal to a higher court also found in favor of the Education Department. This process has convinced the Treasury that it has a technical and not a policymaking role. Relations with the Department are now good and extend to helping with problem solving.

The model that has emerged in Yaroslavl, as Treasury control is about to be extended from the town to the whole Oblast, is as follows:

- There is no interference from the Treasury at the stage of budget planning—the school only has to convince the Department of Education about the correctness of its budget.
- There are eight main budget categories, with subitems within them—reallocation across categories takes one month (with formal clearance from the Ministry of Education), but reallocation across subitems within a category can be done without permission.
- Funds not used within a year cannot be carried over to the following year.
- Nonbudget funds are covered by Treasury control, but do not affect the amount of budgetary funding.
- Schools have their own bank accounts.
Appendix 4
The Bologna Process

A joint declaration issued in Bologna on June 19, 1999, has since evolved into a unique international process of exceptional importance for the future of higher education in Europe. Over the following years, awareness of the importance of the Bologna process and the real need for a common European Higher Education Area (EHEA) dramatically increased all around Europe, not only at the governmental level, but also—thanks to the strong support of the academic community—at the level of institutions. “Bologna” has become part of a new European higher education idiom, easily recognized today in governmental policies, academic activities, international organizations, networks, and media.

The Bologna Process is the most important and wide-ranging reform of higher education in Europe since the immediate aftermath of 1968. The ultimate goal of the Process is to establish a European Higher Education Area (EHEA) and a corresponding European Research Area (ERA) by 2010, in which staff, students, and researchers can move with ease and have fair recognition of their qualifications. This overall goal is reflected in the six main goals defined in the Bologna Declaration:

- To create a system of easily readable and comparable degrees, including the implementation of the Diploma Supplement
- To create a system essentially based on two main cycles: a first cycle relevant to the labor market; a second cycle requiring the completion of the first cycle
- To create a system of accumulation and transfer of credits (European Credit Transfer System, ECTS)
- To facilitate the mobility of students, teachers, researchers, and others
- To foster cooperation in quality assurance
- To strengthen the European dimension in higher education.

An important goal of the Process is thus to move higher education in Europe toward a more transparent and mutually recognized system that would place the diverse national systems within a common frame. This common frame is based on three outcome levels—bachelors, masters, and doctoral—and recognizes different paths according to which they were achieved.

While the Process was initiated at a Ministerial meeting in Bologna in 1999, further Ministerial meetings were held in Prague in 2001 and Berlin in 2003, and there have been many working group meetings on a variety of issues. Russia signed onto the Process at the Berlin meeting in 2003.

All documents relating to the Bologna Process, the Diploma Supplement, and the European Transfer Credit System are available from the Council of Europe websites, http://www.coe.int/T/E/Cultural%5FCo%2Doperation/education/Higher%5Feduction/Activities/Bologna%5FProcess/ and

25 Discussions about the third (Doctoral) level have started.
References


