The Effectiveness of Financing and Management in Schools of Chui oblast

Analytical paper - 2009-2011

USAID
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Effectiveness of Financing and Management in Schools of Chui Oblast

Analytical paper – 2009-2011

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Composite authors: J.Uzbekova, L.Kiseleva, M.McEuen.

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This report is representing the analysis of results on implementation new forms of financing and management in schools of Chui oblast in 2009-2011. It is based on data, getting from automated expenditure tracking system on monitoring the implementation of per capita financing in schools, on results of monitoring visits to schools and on data from National Statistical Committee of KR.

Main indicators defining the efficiency of resources usage for financing schools of Chui oblast are analyzing in this document. This report could be useful both to education managers of rayon level, and to specialists of Ministry of Education and Science of KR for better understanding the process of school financing and management reformation, and getting more reasonable decision.

Using the materials of this report, the reference to authority is mandatory.

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1. INTRODUCTION

The Ministry of Education and Science (MOES) of the Kyrgyz Republic with technical assistance from the USAID Quality Learning Project (QLP) introduced education financing and management reforms throughout Chui Oblast in 2009. Changes in the manner in which schools were financed and managed were based on in-depth analysis of the problems and issues in education financing and management in Kyrgyzstan, as well as previous MOES pilot efforts supported by USAID and the World Bank in Tokmok City and Issyk-Ata Rayon of Chui Oblast, respectively. In 2010, under a Government resolution, the MOES initiated education financing reforms in Issyk-Kul and Batken oblasts with support from the World Bank funded Rural Education project, as well as Bishkek and Osh cities with support from European Union funded Support Education Sector project

This report summarizes reform results in terms of school efficiency and performance after two full years of implementation in Chui Oblast, describes ongoing implementation challenges, and makes recommendations for future implementation and expansion of reforms. Data presented in the report were collected directly from schools and rayon (district) education departments or were taken from an automated database containing school-level monitoring indicators which was developed by QLP, introduced in rayon education departments in Chui Oblast, and then institutionalized within the MOES. Names of rayons in the tables are listed geographically running from East to West, as they are listed by the MOES.

2. ISSUES IN EDUCATION FINANCING AND MANAGEMENT IN KYRGYZSTAN[1]

In the early 2000s, the system of education financing in Kyrgyzstan remained a barrier to broader reform of the education sector and efforts to improve the quality of education and educational outcomes. The main issues in education financing in Kyrgyzstan had their origins in the way education budgets were formed, the flow of funds, and the lack of internal management autonomy at the local or school level. Education sector resources were not used effectively, with significant resources being spent for school education that have not resulted in improved education outcomes. Any efforts to improve the quality of education would achieve only limited success unless resource allocation issues were simultaneously addressed.

A. Budget Formation

The formation of education budgets was based on the normatives inherited from the Soviet budgeting process. The normatives used the number of classes as the basis for staffing and teaching materials and used the size of school facilities as the basis for operation and maintenance costs. This input-based budget formation process encouraged schools to increase the number of classes, minimize class size, and maximize the number of teachers and teaching aids. Over time, these incentives resulted in low student/teacher ratios and declining teachers' salaries. As a result of these incentives between 2001 and 2009, despite the number of students decreasing by 54,000 (7 percent), the number of schools increased by 96 (6 percent), the number of teaching positions increased by 6,000 (6 percent), and the number of administrative personnel increased by 2,000 (7 percent). In addition, because of the infrastructure and staffing normatives, education budgets were nearly fully consumed by fixed labor costs and utility costs (often for inefficiently used space), with inadequate resources available for non-labor inputs, such as textbooks, supplies, and school maintenance. These unfunded operating costs were increasingly borne by households with children attending school and became a barrier to school attendance, especially for children from poorer families.

B. Flow of Funds

Funding for the education sector in Kyrgyzstan was largely generated at the local (city, rayon) level. Some reallocation of resources across geographic areas was carried out through the use of block grants transferred from the central budget, but there was no mechanism to ensure that these resources were earmarked for education financing at the local level. The way that funds flowed in the education sector created several problems. First, budgets were administered by oblast, city, and rayon finance departments rather than education departments, so other budget priorities often displaced transfers from the national budget for education. Second, the capability of generating tax revenue and the priority given to education varied widely across geographic areas resulting in large inequities in the per capita resources available for education. Third, opportunities for

[1] Cheryl Cashin, Education Financing in the Central Asian Republics: Issues and Options, USAID PEAKS Project, Abt Associates, August 2008.

restructuring and consolidating schools were greatly reduced because funding was generated and disbursed at the lowest administrative level. The network of schools in Kyrgyzstan was increasingly characterized by a large number of small schools with small class sizes and consolidation of schools across rayons and cities became increasingly unlikely as the funds did not also flow across administrative borders.

C. Internal Resource Allocation and Management Autonomy

Due to the financing normatives governing the structure and staffing patterns of schools and the rigidity of the schools' chapter budgets, individual schools had little or no influence over the mix of inputs used in the schools. There was, therefore, little flexibility for individual schools or communities to improve the internal management of their resources to improve efficiency, educational quality, or outcomes. Any efficiency gains achieved by individual schools from consolidating classes or increasing the teaching load for individual teachers were not rewarded by the current chapter budget system. Savings were lost to the school, and the budget may have even been reduced in subsequent years. Activities to introduce changes to improve educational quality, such as curriculum reform or incentive-based pay for teachers, were limited by the restrictions on internal resource allocation. Because the school administrators themselves had limited management autonomy, participation of parents and communities in how the educational process was organized and schools were managed also was minimal.

D. Overall Budget for Education

Analysis of trends in overall education spending in Kyrgyzstan provides a helpful context for further analysis (Table 1). Education spending as a percentage of GDP and as a percentage of total government expenditures increased steadily from 2002. Spending for education was 4.4 percent of GDP in 2002 and reached 6.0 percent in 2010. Spending on education as a percentage of the total government budget increased significantly from 22.1 percent in 2002 to 25.6 percent in 2007, before decreasing to 18.6 percent in 2010. The growth in investment that was experienced throughout the decade indicates that the Government places a high priority on investing in the education sector The Government invested further in education in 2011. In absolute terms, government spending on education in Kyrgyzstan totaled approximately 5.38 billion Kyrgyz soms ($122 million[2]) in 2009 and 12 billion Kyrgyz soms ($255 million) in 2011, doubling in only a two-year period.

Relative to other countries in Europe and Central Asia (with only developing countries in the region included), Kyrgyzstan spends significantly more on education both as a percentage of GDP and as a percentage of total government expenditure. This analysis indicates that the main question facing the MOES in improving performance of the education sector is not related to the overall level of resources dedicated to education, but rather the effective allocation and use of funds.

Table 1. Education Sector Spending in Kyrgyzstan and the Region, 2002-2010

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Public spending on education (% of GDP), Kyrgyz Republic	4.4	4.5	4.6	4.9	5.5	6.5	6.0	6.2	6.0
Public spending on education (% of GDP), Europe and Central Asia region (developing countries only)	3.5	3.7	3.4	3.8	4.0	4.3	4.3	4.5	--
Public spending on education (% of government expenditure), Kyrgyz Republic	22.1	22.2	23.1	24.4	25.0	25.6	24.7	21.4	18.6
Public spending on education (% of government expenditure), Europe and Central Asia region (developing countries only)	16.1	15.4	14.2	14.7	14.4	13.7	13.5	--	--

[2] Average for 2009: 1 USD = 43.99 Kyrgyz soms; Average for 2011: 1 USD = 47.1 Kyrgyz soms (http://www.oanda.com/currency/historical-rates/)

Sources: World Bank EdStats database, accessed at http://data.worldbank.org/topic/education?display=default on July 30, 2012.
Kyrgyzstan in Numbers, National Statistical Committee, 2010

3. A MODEL FOR EDUCATION FINANCING AND MANAGEMENT REFORM

Based on joint analysis of the education financing situation and issues, the MOES and education sector donors recognized that a new financing and management system was needed at national, community, and school levels to improve the performance of the education system. USAID and the World Bank provided technical assistance to the MOES to develop and implement a new financing and management model. The model was designed to distribute resources more equitably and fairly, increase management autonomy in schools, improve efficiency, and increase access to basic education for all. The model envisioned that if these objectives were met, the quality of teaching and of the overall learning environment would improve in time.

The core elements of the education financing and management reform model in Kyrgyzstan include:

- Improving education financing by:
  - Establishing annual "minimum standards" required to educate students in order to determine the overall funding needs for the education sector;
  - Formulating school budgets using an output measure (the number of students) rather than rigid input norms, and funding schools through global budgets with fewer line item (chapter) restrictions; and
  - Pooling funding at rayon level (if possible) to improve equity and allow reorganization and consolidation of the network of schools.
- Improving school management by:
  - Increasing transparency in school budgeting and management;
  - Increasing parent and community participation in these processes;
  - Building the capacity of school administrators and accountants;
  - Registering schools as independent legal entities to increase school management autonomy; and
  - Introducing an incentive payment system for teachers.

4. IMPLEMENTATION IN CHUI OBLAST

Kyrgyzstan opted for phased implementation of the education financing and management reforms, starting in Chui Oblast. Pilot programs were initiated by the USAID PEAKS Project in Tokmok City and by the World Bank-funded Rural Education project in Issyk-Ata Rayon in 2006. Transition of schools throughout Chui Oblast to the new financing mechanism began in November 2008 rayon by rayon, with all 299 schools in the eight rayons of Chui Oblast and in Tokmok City covered by January 2009 with support from USAID QLP or "Sapattuu Bilim" project. Based on implementation in Chui Oblast, the MOES, with support from the World Bank Rural Education project and European Union Support Education Sector project, has started to roll out education financing reforms to Issyk-Kul and Batken Oblasts, as well as Bishkek and Osh cities, in 2010.

A. Monitoring Reform Implementation

QLP supported the MOES to manage implementation of the new education financing and management model in Chui Oblast through a working group comprised of national and local stakeholders that met quarterly to discuss implementation progress and barriers.

The working group developed official minutes (protocols) of its meetings to document decisions made to refine implementation and/or resolve issues. QLP also supported MOES staff to make frequent monitoring visits throughout Chui oblast to monitor local implementation and capacity building. The QLP-designed automated indicator tracking system helped to provide monitoring data on reform implementation to counterparts at all levels – school, rayon, oblast, national – and has been institutionalized at rayon-level and in the MOES. Monitoring indicators on transition of schools in Chui oblast to per capita financing also were made available to MOES specialists and communities in the form of annual statistical handbooks. Statistical handbooks were published with 2009, 2010, and 2011 data.

B. Improving Education Financing

With support from the World Bank, Socium Consult, a local consulting firm, worked with the MOES and the Ministry of Finance (MOF) to develop minimum standards of budget financing for schools. The minimum standards are determined annually jointly with the level of resources required to educate one student in each grade of study in each type of school (exclusive of utility costs). School budgets are then calculated by multiplying the minimum standards by the number of students and adding utility costs. Coefficients are used to increase the level of funding for rural and remote schools, and for schools with a small number of students. The minimum standards were designed to represent the ideal level of financing per student and they are adjusted downward slightly to fit within the total budget envelopes for education at national and local levels.

In terms of funds flow, national-level education sector resources are channeled to local governments (ayil okmotu) through categorical grants. The categorical grants are adjusted to take into account the revenue potential of the local government as well as their planned budget for education. This requires that wealthier local governments be willing to sacrifice some of their earmarked education funding so that funds may be more equitably distributed across wealthier and poorer communities alike. School funding therefore is comprised of the ayil okmotu's education sector budget and funds received through the categorical grant.

Once the overall school budget is determined, the school itself is given the autonomy to develop its expenditure estimates. The ayil okmotu either pays utility costs directly to service providers or includes funds to cover utilities in the school budget. Increasingly, schools prefer to pay for utilities directly so that they may better monitor school usage through metering and pay based on actual use rather than on historical use. Savings generated from efficiencies gained throughout the year may be transferred to other line items with appropriate approvals.

C. Improving School Management

The reform model envisions increasing the autonomy of schools over financial, personnel, and academic decisions in order to improve the school's efficiency and quality. MOES and QLP helped 272 schools to be registered as independent legal entities and establish bank accounts within the Treasury system for both budgetary and other funds. With support from ayil okmotu and rayon finance departments, QLP helped 98 schools create accounting departments.

As education reforms were rolled out, school principals, accountants, and even active parents and community members needed new skills to manage the new levels of autonomy and accountability. QLP worked closely with the Kyrgyz Academy of Education (KAE) to develop a 72-hour course on "Effective School Management" including blocks on financial management and engaging communities in school management. QLP together with the MOF developed a training module for school accountants entitled "School Accounting."

QLP trained local trainers and then supported the conducting of seminars on financial management and accounting for school principals and accountants in each rayon of Chui oblast. In total, 335 people including school principals, economists, and rayon education department specialists were trained on financial management, while 178 school and ayil okmotu accountants were trained on school accounting.

All training modules were institutionalized in KAE and local training institutes. Further, the MOES issued an order that the training modules be regarded as "Tutorials" and become mandatory components in the professional development curriculum for school principals to support further roll-out and sustainability of school financing and management reforms throughout the country.

D. Increasing Parent and Community Participation in School Management

QLP also helped parents and community members in the local communities establish 64 Advisory Committees in Chui Oblast, which were registered as legal entities with their own bank accounts. The Advisory Committees were designed to increase participation of parents and communities in school management and increase transparency and accountability of school management. To support the development of the Committees, the project trained a cadre of national trainers and then held workshops on "Community Involvement in School Management" for teams of school principals and chairmen of Advisory Committees, training a total of 127 people throughout Chui Oblast. In addition to these trainings, QLP and MOES supported two national forums on Advisory Committees to build their capacity, allow them to exchange experiences, and reward the most active

Committees with certificates of appreciation. Capacity building efforts of the Committees were further supported by the development of a series of reference guidebooks and manuals on topics including: “Advisory Committees: How to Start?”; “Planning Joint Activities between School and AC”; “How to Organize School Budget Hearings”; and “Keys to Successful Partnership.”

In addition, information stands and suggestion boxes were set up in each school throughout the oblast to make school management and budgeting processes more transparent and participatory. Moreover, public budget hearings were held in communities in several rayons to present and analyze the estimated school budget for the planned period, present Advisory Committee budgets comprised of parent and community contributions, and discuss how all resources available to the school could be more strategically used to improve education outcomes. With the support of parents and communities, 15 schools in Chui Oblast conducted public hearings on the budget and off-budget funds in 2011.

QLP also has supported the roll-out of community participation in school management in Issyk-Kul and Batken Oblasts. The project has provided assistance to register 72 Advisory Committees in these two oblasts and to train 146 school principals and Committee chairmen. To date, 5 public hearings on school budgets have been held in these two oblasts as well.

E. Introducing Incentive Payments for Teachers

Another direction of the education sector reforms included the introduction of an incentive-based payment system for teachers to improve performance, efficiency, and quality. QLP supported the MOES to develop and implement a new labor remuneration mechanism in the education sector. The new system increased the base salary for teachers and added incentive payments. It was introduced throughout the country in May 2011.

Incentives are paid from an Incentive Fund equal to 10 percent of the labor remuneration fund (this is planned to be increased to 20 percent in September 2012). The incentive pay fund for schools that have transitioned to per capita financing also can be increased from school budget savings. Performance payments to teachers are calculated based on school-level and individual performance outcomes. Each school has the right to establish an evaluation committee and determine its own criteria to evaluate performance, following MOES recommendations. To assist the schools in implementing the new system in a fair and objective way, MOES, QLP, and the World Bank-funded Rural Education project reviewed the initial evaluation criteria that had been developed and proposed a modified set of standards that were better defined and easier for both teachers and evaluation committees to understand and implement. The MOES, QLP, and Rural Education project produced a reference guide “Evaluation and Incentive Pay for Teachers under Per Capita Financing” to be used by school administrations. The guide is available in Kyrgyz and Russian languages. Schools that have transitioned to the per capita financing model adopted these standards and received training on implementing performance payment. Evaluation criteria to be used in performance payment for teachers include such indicators as professional skills, student achievements, teacher professional development, job complexity and intensity, etc. QLP also provided technical assistance to the MOES to develop criteria to evaluate the performance of teaching and non-teaching staff for those schools not yet covered by per capita financing so they also may pay incentives quarterly using money from their Incentive Funds.

Schools in Chui oblast increased the Incentive Fund with savings generated over the last two years which totaled 23.1 million Kyrgyz soms ($490,000). The savings were used for payment of teacher incentives, improvement of the school’s infrastructure, and increasing and refreshing of library funds. Teachers received incentive payments ranging from 1700 to 5000 Kyrgyz soms each ($36 - $106) per quarter. This sum included school savings and labor remuneration Incentive Funds. The size of teacher incentives in 2011 was lower than in 2010 (up to $164) as new financing and remuneration systems were introduced in all schools, and schools generated less saving from efficiencies.

F. Policy and Regulatory Changes to in Support of Education Reform

QLP supported the MOES and the Government of Kyrgyzstan in codifying education finance and management changes, and even parent and community involvement in school management, in a number of laws, policies, and regulations. These include:

- Amendments to the Law on Education, specifically adding Article 44-1 "Public hearing of the report on budget spending at the public education institutions," making public budget hearings mandatory for schools throughout Kyrgyzstan, to take place annually before the end of August;
- MOES Ministry Board regulations № 3/1 and № 3/2 of March 28, 2012 regulating participation of communities in management of all types of schools through Advisory Committees;
- Government Resolution № 142 of February 20, 2012 transferring 139 schools in Chui oblast under municipal ownership of local communities;
- MOES Order № 655/1 of September 27, 2011 approving 13 training manuals related to education financing and management reforms and community involvement in school management developed with support from QLP;
- MOES Order № 656/1 of September 27, 2011 approving "Exemplary indicators for evaluation of performance and methodical recommendations on introduction of new labor conditions in the elementary and secondary education institutions of the Kyrgyz Republic;"
- Government Resolution № 270 of May 31, 2011 on "Approval of the regulation of salary calculation in the elementary and secondary education institutions;"
- Government Resolution № 18 of January 19, 2011 on "Implementation of new salary pay mechanism in the elementary and secondary education institutions;" and
- Joint resolution issued by MOES, MOF and National Agency of Local Governments on "Approval of the joint action plan for school financing and management reforms in the elementary and secondary education institutions during 2010-2012;"
- MOES Order № 666/1 of June 12, 2009 on "Monitoring of financing and management reforms in Chui oblast schools" resulting in the installation of the automated indicator tracking system in Chui oblast (and later in Issyk-Kul and Batken oblasts under MOES Order No.617/1 of September 6, 2011).

G. Other Measures to Improve School Financing and Management

The number of hours required by the educational curriculum in Kyrgyzstan, particularly for higher grades, is significantly higher than in other countries. Table 2 compares the number of hours per year for 10-14 year old students in 2007. The high number of hours has not translated into higher educational achievement in Kyrgyzstan as measured by PISA.[1] In fact, Finland, the country with the lowest number of hours at each age level, scored highest on PISA.

Table 2. Number of Annual Hours in Curriculum by Student Age, 2007

Country	Student Age				
	10	11	12	13	14
Germany	774	862	874	915	918
Japan	761	761	875	875	875
Finland	684	713	713	855	855
Switzerland	741	741	741	741	741
Spain	795	795	795	870	870
Czech Republic	738	803	828	886	886
Hungary	867	902	971	902	902
Russia	893	919	971	998	998
Kyrgyzstan	1,088	1,190	1,190	1,155	1,225

As part of education financing and management reforms, an experimental curriculum was developed and approved for Chui Oblast that required consolidation of a number of related subjects and slight reductions in annual hours in the curriculum for several subjects. Reductions in curriculum hours reduced teaching loads and

[3] Program for International Student Assessment (PISA) is a system of international assessments that focus on 15-year-olds' capabilities in reading literacy, mathematics literacy, and science literacy.

generated savings in the wage fund that could be reinvested for other purposes. A gradual reduction of curriculum hours was to be phased in step-by-step under a MOES resolution nationally, beginning with grades 1-4 in 2011/12, then continuing with grades 5-9 in 2012/13 and grades 10-11 in 2013/14.

In addition, the MOES introduced a standard price table for extra-curricular educational services, such as specialized tutoring, for which schools and teachers could charge a fee. Fees for these services are accumulated in a school bank account under the Treasury system. These accounts allow for flexible spending of revenue without line item restrictions and allow carry over of funds from year to year. A Government regulation on the organization of extra-curricular educational services permits schools to use up to 60 percent of the earned revenue as additional or incentive payments for teaching staff. In 2011, schools in Chui oblast earned approximately 19.3 million Kyrgyz soms ($410,000), roughly equal to 1.4 percent of the overall annual budget for educational institutions in Chui oblast.

5. EFFICIENCY AND PERFORMANCE INDICATORS

The MOES-led working group, with support from QLP, developed a list of indicators to measure the results of reform implementation. School data is entered into an automated system at the rayon level that tracks information about the school's composition, budgets, and expenditures. The system simplifies analysis of indicators, such as number of students per class and student/teacher ratio, so they may be used to monitor implementation progress and continue to push for further progress. This section reports on progress that was made against a number of key indicators that attempt to measure school efficiency and performance. When possible, calculations were made to quantify efficiency gains or losses into financial terms.

Indicators reported in this section include:

- Overall dynamics in school network and composition;
- Spending per student;
- Effect of student-teacher ratio, class size, and curriculum hours on spending;
- Use of school infrastructure and its effect on efficiency;
- Use of resources by line item; and
- Reinvestment of resources to improve school performance and quality.

A. Has the School Network and its Composition Changed?

The number of schools and classes decreased between 2009 and 2011, while the number of students and teachers increased. Table 3 provides the overall dynamics in the school network and its composition over the two-year period. The number of classes declined by 2.7 percent and the number of schools by 1.4 percent, while the number of students increased slightly by 0.6 percent and the number of teachers increased by 5.1 percent. The increase in the number of teachers occurred with implementation of the new remuneration system and other measures aimed to reduce the deficit of teachers. Thus, the average teaching load per one teacher also declined to 1.1 positions (job combination indicator) from 1.3 in 2009 and 1.4 in 2010. The new teacher remuneration system also established a competitive environment, attracting young teachers to schools and introducing incentives to improve teacher performance, and ultimately student education outcomes.

Table 3. Overall Dynamics in School Network and Composition by Rayon, Chui Oblast, 2009 and 2011

Rayon	2009				2011			
	Schools	Classes	Students	Teachers	Schools	Classes	Students	Teachers
Kemin	31	525	8,689	728	31	514	8,507	726
Chui	28	417	8,628	565	28	398	8,403	648
Issyk-Ata	49	1,016	21,715	920	48	982	22,633	1,288
Tokmok City	13	414	11,260	441	13	392	11,124	424
Alamedin	33	812	19,411	1,307	33	786	19,116	1,141
Sokuluk	46	1,070	27,751	1,410	46	1,072	28,378	1475
Moscov	33	700	14,655	763	33	690	15,140	770

Zhail	42	763	16,045	897	39	734	15,522	896
Panfilov	24	381	6,871	447	24	372	6,998	552
Total, Chui Oblast	**299**	**6,098**	**135,025**	**7,478**	**295**	**5,940**	**135,821**	**7920**

B. Has Spending Per Student Increased?

In Chui oblast, spending per student in schools increased in all rayons and Tokmok city between 2009 and 2011, with increases averaging 64 percent, and ranging from 46 percent in Zhail rayon to 97 percent in Kemin rayon (Table 4). Increases in this indicator may be dependent on two factors: 1) overall increase in education sector financing; and 2) decrease in the number of students. In this case, increases primarily reflect significant increases in overall education sector financing, as the number of students in each rayon remained roughly the same.

Table 4. Spending Per Student on Basic Education by Rayon, Chui Oblast, Kyrgyz Soms, 2009 and 2011

Rayon	2009	2011	Difference	
			Absolute	Percent
Kemin	6,863	13,508	6,645	97
Chui	6,378	11,384	5,006	79
Issyk-Ata	6,403	10,296	3,893	61
Tokmok City	5,394	9,175	3,781	70
Alamedin	5,422	8,329	2,907	54
Sokuluk	5,526	9,133	3,607	65
Moscov	6,215	10,577	4,362	70
Zhail	7,889	11,499	3,610	46
Panfilov	8,210	13,577	5,367	65
Average, Chui Oblast	**6,274**	**10,291**	**4,017**	**64**

C. What Effect Has Student/Teacher Ratio Had on Spending?

In Chui Oblast, the average number of students per teacher between 2009 and 2011 decreased from 18.1 to 17.1, (Table 5). In 2009, the student/teacher ratio ranged from 11.9 in Kemin Rayon to 25.5 in Tokmok City, while in 2011 it ranged from 11.7 in Kemin to 26.2 in Tokmok. The decreases in this ratio are connected with an increase in the number of teachers (by 5.4 percent), resulting in a reduction of teaching load per teacher (job combination indicator decreased from 1.3 in 2009 to 1.1 in 2011).

Figure 1. Student/Teacher Ratio by Rayon, Chui Oblast, 2011

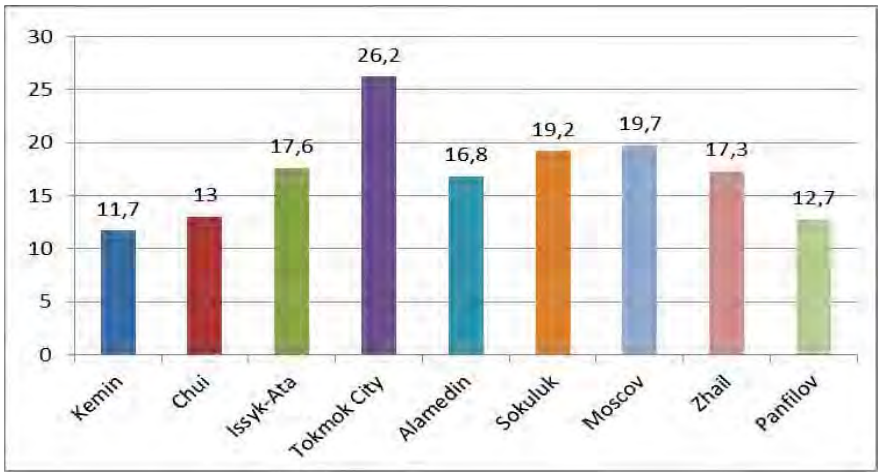


Table 5. Student/Teacher Ratio, Chui Oblast, 2009 and 2011

Rayon	Student/Teacher Ratio		
	2009	2011	Absolute Deviation
Kemin	11.9	11.7	-0.2
Chui	15.3	13.0	-2.3
Issyk-Ata	16.6	17.6	-+1.0
Tokmok City	25.5	26.2	-+0.7
Alamedin	21.1	16.8	-4.3
Sokuluk	19.7	19.2	-0.5
Moscov	19.2	19.7	-+0.5
Zhail	17.9	17.3	-0.6
Panfilov	15.4	12.7	-2.7
Average, Chui Oblast	**18.1**	17.1	**-1.0**

While there is evidence that a lower student-teacher ratio may improve learning outcomes, the lower the ratio, the more expensive the cost of education per student. Therefore, it is important to find a balance – not too low a ratio to increase costs, and not too high a ratio to deter quality learning. An average of 17 students per teacher may be considered low when compared with global averages, and specific strategies may be needed to address the situation, particularly where the ratio is significantly lower than the oblast average, e.g., in Kemin and Panfilov rayons.

In financial terms, an increase in the number of students per teacher could translate into a net savings of funds for labor remuneration equivalent to 2.9 million Kyrgyz soms ($61,571) per month or 34.5 million soms ($732,028) per year. This is calculated by assuming that if the student/teacher ratio would be the same in 2011 as in 2009 – 18.1, then the number of teachers in Chui oblast would be 7,504 (135,821 students / 18.1 = 7,504 teachers). In fact, there were 7,920 teachers in Chui oblast in 2011 for a difference of 416 teachers (7,920 - 7,504 = 416 teachers). If the average teacher salary in Chui Oblast in 2011 was 6,500 Kyrgyz soms/month, estimated "savings" in teacher salary can be calculated by multiplying 6,500 soms by 377 by 1.1725 (Social Fund contribution) = 3.2 million Kyrgyz soms/per month.

D. What Effect Has Class Size Had on Spending?

The average number of students per class increased from 22.1 in 2009 to 22.9 in 2011 (Table 6). The number of students per class is highest in Tokmok City at 28.4 and the lowest in Kemin Rayon at 16.6.
The difference between the number of students per class between 2009 and 2011 is marginal, except in Isskyk-Ata and Moskov Rayons and Tokmok city where they have increased by an average of one student per class.

Table 6. Average Number of Students per Class, Chui Oblast, 2009 and 2011

Rayon	Average Number of Students per Class		
	2009	2011	Absolute Deviation
Kemin	16.6	16.6	0
Chui	20.7	21.1	0.4
Issyk-Ata	21.4	23.0	1.6
Tokmok City	27.2	28.4	1.2
Alamedin	23.9	24.3	0.4
Sokuluk	25.9	26.5	0.6
Moscov	20.9	21.9	1.0
Zhail	21.0	21.1	0.1
Panfilov	18.0	18.8	0.8
Average, Chui Oblast	**22.1**	**22.9**	**0.8**

In financial terms, increase in average number of students per class of 3.6 percent may lead to decrease in teacher salaries in the amount of 1.7 million Kyrgyz soms ($36,516) per month or 20.6 million soms ($438,190) per year. This estimate was made based on the assumption that an increase in the average number of students per class, according to the actual amount of the previous year, would lead to reduction of 206 classes ((135,821 students / 22.1 students per class) - 5,940 actual amount of classes = 206 classes (see Tables 3 and 6)). As the average teacher salary/per class in 2011 in Chui oblast was 8,349 soms per month, multiplying this amount by 206 classes throughout Chui oblast would be equal to 1.7 million Kyrgyz soms.

E. What Effect Has Reducing Curriculum Hours Had on Spending?

The experimental curriculum introduced in Chui Oblast reduced the number of curriculum hours and resulted in significant generation of savings from labor remuneration. Reduction of curriculum hours for grades 1-4 by a total of 21,246 hours per week resulted in savings of more than 4.8 million Kyrgyz soms ($102,341) per month in 2011. This savings was estimated by multiplying the average teacher salary per one academic hour in a week by the number of reduced hours. In 2011, the average teacher salary per one academic hour in a week was 45 Kyrgyz soms. Therefore, the estimated savings in salaries (teacher salaries plus Social Fund contributions of 17.25 percent of salaries) was equal to 4.8 million Kyrgyz soms per month (21,246 * 45 * 4.3 weeks * 1.1725 = 4.8 million soms).

F. How Does Use of School Infrastructure Affect Efficiency?

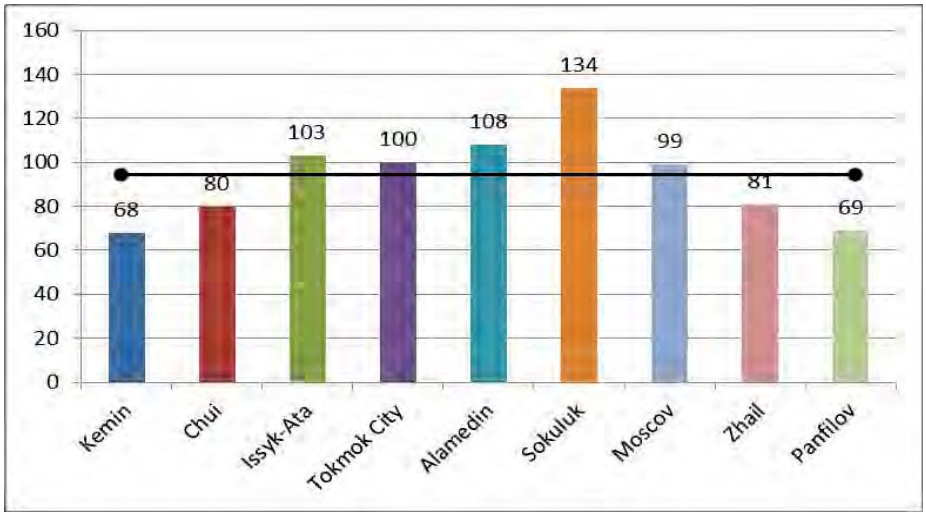
Efficiency in the use of educational areas has decreased by an average of 1.4 percent between 2009 and 2011 in Chui Oblast (Table 7). In 2011, an average of 97 percent of school educational capacity was used in Chui Oblast. However, this ranged from a low of 68 percent use in Kemin Rayon to a high of 133.7 percent use in Sokuluk Rayon. The capacity use index in Zhail rayon decreased by 11 percent and should be further investigated.

Table 7. Analysis of the Use of Educational Space by Rayon, Chui Oblast, 2009 and 2011

Rayon	2009			2011			Percent Change
	Number of Students		Capacity use index, %	Number of Students		Capacity use index, %	
	Capacity	Actual		Capacity	Actual		
Kemin	12,263	8,689	71	12,554	8,507	68	-3.2
Chui	10,445	8,628	83	10,548	8,403	80	-3.3
Issyk-Ata	21,999	21,715	99	21,999	22,633	103	+3.9
Tokmok City	10,500	11,260	107	11,156	11,124	100	-7.3
Alamedin	17,920	19,411	108	17,866	19,116	108	-0.5
Sokuluk	21,222	27,751	131	21,222	28,378	134	+2.7
Moscov	15,366	14,655	95	15,366	15,140	99	+3.5
Zhail	17,415	16,045	92	19,183	15,522	81	-11.1
Panfilov	10,139	6,871	68	10,139	6,998	69	+1.0
Total, Chui Oblast	**137,269**	**135,025**	**98**	**140,033**	**135,821**	**97**	**-1.4**

Figure 2 highlights use of space by rayon in 2011 against the oblast average. Further analysis is needed for Kemin and Panfilov Rayons to assess the potential need for optimization of the school network, while analysis is needed in Sokuluk Rayon to assess the potential need for an increase in school and/or network capacity.

Figure 2. School Capacity Use Indicator by Rayon, Chui Oblast, 2011, Percent



A Government resolution requested optimization of the school network based on the results of school capacity analyses. However, the process proceeds slowly and has limited support from local government authorities, communities, and parents. Nevertheless, in Issyk-Ata rayon of Chui oblast, “Ak-Tilek” and “Ak-Niet” schools were consolidated and the released building is now being used as a kindergarten. An elementary school in Kyzyl-Alma village became a branch of the Ivanovo school № 4, an elementary school in Jetigen village became a branch of the secondary school named after Mamashev, and an elementary school in Tash-Bashat village became a branch of the secondary school named after Bolobalaev. In Kemin rayon of Chui oblast, an elementary school in Kashka village became a branch of the Orlovka school № 2 and an elementary school in Bordu village became a branch of the secondary school in Almaluu village. One school in Kara-Balta city was closed and the building was transferred for use by the economic college. While it may not have reduced the available space or improved use of space, the transition of small schools into branches of larger schools helped to reduce the number of administrative and technical personnel. The head school provides methodological assistance to the branch schools thereby contributing to improvement of education quality.

Optimization of the school network also occurred in other rayons of Chui oblast. Under a resolution of the administration of Panfilov rayon, the elementary school in Cholok-Aryk village of Frunze ayil okmotu was closed and transportation of children from the village to a nearby, larger school was arranged. These measures helped to increase the budget of other schools in Frunze ayil okmotu by 14 percent in 2010. The school named after Saadaev in Chui rayon with the low class size and small number of students per class was transitioned into an elementary school. The branch of the Pervomay school in Moscov rayon with an overall number of nine students was closed. Specific measures for optimum use of the school buildings were undertaken in Sokuluk rayon. A new preschool education institution for 75 children with a total area of 115 square meters was established in released building №4 of Novopavlovka education and training center №1 named after Aitmatov.

The appropriate use of space in several rayons declined between 2009 and 2011 while expenditures on utilities stayed the same. Table 8 quantifies the “losses” related with inappropriate use of space by estimating the sunk costs on utilities associated with reductions in appropriate use of space. These sunk utility costs were estimated to be 4.3 million Kyrgyz soms ($91,295) in 2011.

Table. 8. Estimated "Losses" of Budgetary Funds for Payment of Utilities Given Inefficient Use of Space, Kyrgyz Soms, in 2011

Rayons	Decrease in school area use ratio	Spending on utilities, millions, Kyrgyz soms	"Losses," millions, Kyrgyz soms
Kemin	-3.2	11.4	0.4
Chui	-3.3	5.1	0.2
Alamedin	-0.5	10.5	0.1
Tokmok city	-7.3	23.6	1.7
Zhail	-11.1	18.3	2.0
Total			**4.3**

G. Are Schools Using Resources Differently Under the New System?

It is important to track how schools are spending their money by line items. As seen in Table 9, total spending on salaries (salaries and social fund contributions) averaged 76 percent of the budget in 2011, with the costs on utilities averaging 10 percent of total spending. The costs on utilities ranged from 5 percent in Chui rayon to 23 percent in Tokmok city. The structure of school spending between 2009 and 2011 has changed and "moved" towards an increase in labor remuneration. In 2009, 70 percent of budgetary funds were used for remuneration of teaching staff and it has reached 76 percent in 2011. This is primarily due to implementation of the new labor remuneration system in May 2011. Accordingly, the share of expenditures for utilities and other services declined. Figure 3 provides these data in a pie chart format for 2011.

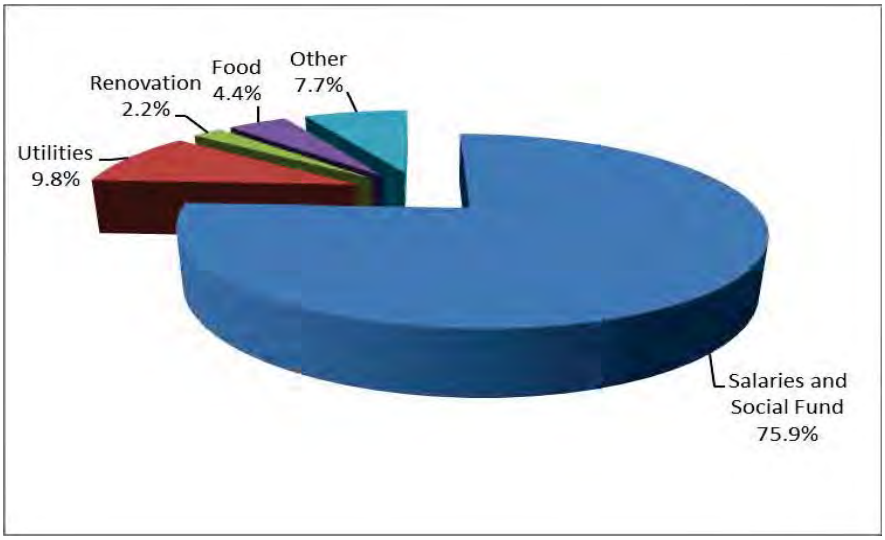
Table 9. School Spending by Line Item by Rayon, Chui Oblast, 2009 and 2011, Percent

Rayon	2009			2011		
	Salaries (Social Fund Contribution)	Utilities	Other operating expenses	Salaries (Social Fund Contribution)	Utilities	Other operating expenses
Kemin	77	18	5	80	10	10
Chui	74	9	17	73	5	22
Issyk-Ata	74	9	17	77	8	16
Tokmok City	65	19	16	63	23	14
Alamedin	73	9	18	83	7	11
Sokuluk	67	8	25	74	9	17
Moscov	70	11	19	76	12	12
Zhail[4]	59	23	18	78	10	12
Panfilov	71	11	18	76	8	15
Total, Chui Oblast	**70**	**13**	**17**	**76**	**10**	**14**

Other operating expenses include student feeding, maintenance and repair, travel and transportation costs, and other expenditures.

[4] The 2009 figures for Zhail Rayon were confirmed against approved data, but seem to represent a significant outlier relative to other rayons and may need to be further investigated for accuracy.

Figure 3. School Spending by Line Item, Chui oblast, 2011, Percent



The relatively high percent of expenditures on utilities in Moskov, Kemin, and Zhail Rayons, and Tokmok City might require further investigation and analysis to see if they can be further reduced. Installation of heating meters in schools in Tokmok City supported by QLP easily recovered costs of the meter and its installation in just one year, generating savings of approximately 120,000 Kyrgyz soms ($3,400) per school in the 2007/2008 academic year. Despite these efforts, spending on utilities in Tokmok remains relatively high and should be further analyzed.

Table 10 shows that the percentage of school spending per student without expenditures on utility services in Chui Oblast increased on average by 3,797 Kyrgyz soms or, in other words, by 69 percent between 2009 and 2011. Spending on utility costs per student also has increased from 792 soms to 1,012 soms in 2011 (6,274 – 5,482 = 792 soms in 2009 and 10,291 – 9,279 = 1,012 soms in 2011), or by 28 percent of spending. This increase is likely the result of an increase in overall school budgets.

Table 10. Percentage of Spending on Non-Utility and Utility Costs, Chui Oblast, 2009 and 2011, Kyrgyz Soms

Rayon	2009				2011			
	Spending Per Student	Without Utilities	Percent Spending on Non-Utility Costs	Percent Spending on Utility Costs	Spending Per Student	Without Utilities	Percent Spending on Non-Utility Costs	Percent Spending on Utility Costs
Kemin	6,863	5,653	82.4	17.6	13,508	12,174	90.1	9.9
Chui	6,378	5,799	90.9	9.1	11,384	10,783	94.7	5.3
Issyk-Ata	6,403	5,842	91.2	8.8	10,296	9,498	92.2	7.8
Tokmok City	5,394	4,353	80.7	19.3	9,175	7,055	76.9	23.1
Alamedin	5,422	4,934	91.0	9.0	8,329	7,779	93.4	6.6
Sokuluk	5,526	5,059	91.5	8.5	9,133	8,280	90.7	9.3
Moscov	6,215	5,550	89.3	10.7	10,577	9,357	88.5	11.5
Zhail	7,889	6,072	77.0	23.0	11,499	10,317	89.7	10.3
Panfilov	8,210	7,321	89.2	10.8	13,576	12,458	91.8	8.2
Average, Chui Oblast	**6,274**	**5,482**	**87.4**	**12.6**	**10,291**	**9,279**	**90.2**	**9.8**

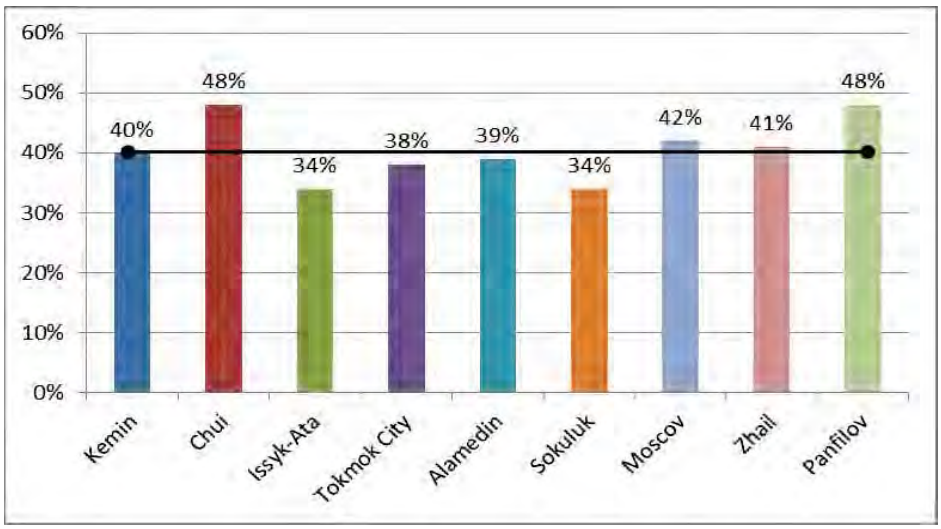
Two additional indicators that are important in monitoring reform implementation are number of administrative and other personnel in school and the job combination indicator (number of teaching positions held by each teacher). Table 11 shows the first indicator for 2009 and 2011. On average, teaching personnel accounted for 63 percent of all personnel in 2009 and 60 percent in 2011.

Table 11. Ratio of Teaching and Non-Teaching Personnel and Number of Positions Filled, Chui Oblast, 2009 and 2011

Rayon	2009			2011		
	Percent Teaching Personnel	Number of Staff Positions per Teacher	Percent Admin and Other Personnel	Percent Teaching Personnel	Number of Staff Positions per Teacher	Percent Admin and Other Personnel
Kemin	60	1.1	40	60	1.1	40
Chui	60	1.3	40	52	1.0	48
Issyk-Ata	63	1.3	37	66	1.1	34
Tokmok City	65	1.7	35	62	1.3	38
Alamedin	67	1.2	33	61	1.0	39
Sokuluk	71	1.3	29	66	1.1	34
Moscov	66	1.5	34	58	1.3	42
Zhail	62	1.4	38	59	1.2	41
Panfilov[5]	51	1.4	49	52	1.0	48
Average, Chui Oblast	**63**	**1.4**	**37**	**60**	**1.1**	**40**

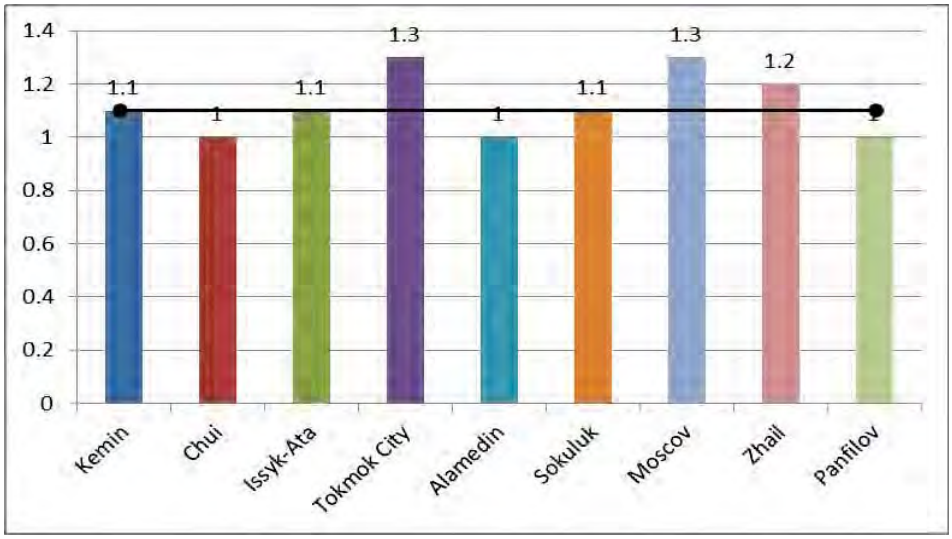
Over the two-year period, the share of administrative and technical personnel (non-teaching staff) increased. This increase may have been caused by implementation of a Government resolution to incorporate social teachers and kitchen staff into school personnel rosters. Further analysis and investigation may be needed in Cui and Panfilov Rayons where the percentage of non-teaching personnel is reaching nearly 50 percent of all personnel. Schools that have transferred to the per capita financing model may independently determine the balance between teaching and non-teaching staff.

Figure 4. Administrative and Technical Personnel Share, Chui Oblast, 2011, Percent



[5] These figures were confirmed against approved data for Panfilov Rayon, but the data seem to represent a significant outlier relative to other rayons and may need to be investigated further for accuracy.

Figure 5. Job Combination Indicator (Number of Staff Positions Held) of Teaching Staff, Chui Oblast, 2011



As seen in Table 11, teachers were combining two and more job positions, having resulted in an average job combination indicator of 1.4 positions in Chui Oblast in 2009. This indicator decreased to 1.1 positions in 2011, with the highest indicator in Moscov rayon and Tokmok city (1.3 positions held for each teaching staff member). Efforts to reduce curriculum hours, increase base pay, and make changes in the teaching load may have resulted in reduction in need for teachers to occupy more than one position at school.

H. How Were Savings from More Efficient Operations Reinvested by Schools?

With their increased autonomy, schools have both incentives and opportunities to operate more efficiently and the ability to reinvest savings from increased efficiency to reward teachers for high performance, invest in routine maintenance and purchase of learning materials and supplies, and improve the overall education environment. Schools in seven rayons in Chui Oblast reinvested more than 23 million Kyrgyz soms ($488,323) in 2011. This included 18.7 million soms paid as incentive pay to teachers based on their performance, as well as more than 1.4 million soms used for minor repair projects to improve the school infrastructure. In total, 81 percent of reinvested savings was spent on payment of incentives for teachers.

Table 12. Reinvestment of Savings from Increased Efficiency of Schools in Select Rayons, Kyrgyz Soms (thousands), 2011

Rayon	Teacher Incentives	Improving Material Base	Improving Learning Environment	Increasing Library Fund	Aiding Poor Students	Other	Total
Issyk-Ata	2,660	573	92	0	20	315	3,660
Alamedin	8,563	249	162	60	328	145	9,507
Zhail	671	555	5	104	2	267	1,604
Chui	84	0	7	0	12	0	103
Kemin	256	71	60	0	0	20	407
Moskovskii	6,455	0	0	0	0	1,345	7,800
Total, Chui Oblast	**18,689**	**1,448**	**326**	**164**	**362**	**2,092**	**23,081**

7. RISKS

A number of risks may need to be addressed or mitigated to ensure the further effectiveness and efficiency of education financing and management reforms as they are rolled out from Chui Oblast across Kyrgyzstan. Table 21 lists several critical potential risks and proposes a number of strategies to mitigate them.

Table 13. Potential Risks to Ensuring Further Effectiveness and Efficiency of Education Financing Reforms and Strategies to Mitigate Risks

Potential Risk	Mitigation Strategies
Optimization of the school network is complex and requires political will at all levels	1) Base optimization plans on sound analysis 2) Provide guidance on optimization 3) Empower rayon education departments to be responsible and accountable for optimization efforts 4) Explain decisions and actions, particularly explicit benefits, regarding optimization to key stakeholders, including communities and parents 5) Provide incentives to schools and ayil okmotu to encourage optimization, e.g., grants
65% of schools in Chui Oblast have 500 students or less, while 58% of schools do not work to their full capacity	1) Consider strategies to optimize, merge, or affiliate schools to reduce administrative costs, and increase the efficient use of available physical capacity 2) Introduce a range of types of schools as in Russia and consider these schools “fully public schools”
Resources may continue to be distributed inequitably as minimum spending standards are determined at the republican level, while maximum spending levels by local self-government are not limited	1) Monitor effectiveness of rural coefficients to minimum standards in targeting resources towards poorer regions 2) Consider further consolidation/centralization of education sector funding to increase equitable distribution across the country

8. RECOMMENDATIONS

Two years of experience implementing education financing and management reforms in Chui Oblast have resulted in a number of improvements in how education sector resources are used. School administrations and communities have more independence, financial autonomy, and accountability for school budgets. They are finding ways within the new financing and management model to operate more efficiently, save money, and reinvest savings to improve learning. Under the new remuneration system, teachers are receiving higher compensation and part of their compensation is directly tied to their performance.

The MOES is planning to implement education financing and management reforms throughout the country, and measures in Issyk-Kul and Batken Oblasts, Bishkek and Osh cities have already started, building on the experience of reform implementation in Chui oblast. It is recommended that donor organizations working in the country continue to support the MOES to ensure sustainability of achievements and expand reforms at national and local levels.

Sustainability and success in education financing reform require that implementation efforts should be focused on:

1) Encouraging schools that have transitioned to the new financing and management model to further increase efficiency based on the above analysis, including:
    - Considering reducing the number of teachers and increasing the student/teacher ratio;
    - Reducing the number of classes and increasing class size;

- Analyzing and potentially reducing the number of non-teaching personnel;
- Considering further reductions in curriculum hours;
- Increasing use of physical capacity/space within the school and/or reducing unnecessary space if possible; and
- Identifying mechanisms to reduce utility costs and improve school energy efficiency (e.g., meters, repairs/renovations, insulation, etc.).

2) Ensuring continued political support for reform at national and local levels.
3) Increasing the capacity of school principals and accountants to manage schools given their new levels of autonomy and within the new school financing system.
4) Establishing school-community partnerships through establishment of Advisory Committees that increase transparency in the use of resources and contribute to improving school performance.
5) Further refining of training programs on financial management for school principals, public sector accounting for rayon and school accountants, and community participation in school management for Advisory Committees and improve capacity of trainers of KAE and regional education departments to conduct future trainings.
6) Preparing guidance (possibly including resolutions, orders, or instructions) to encourage and regulate school network optimization.
7) Introducing program and targeted school budget formation (i.e., replacing input oriented planning with outcome oriented planning to ensure budgeting is focused on results); Annual qualitative and quantitative results should be determined at the stage of budget planning.
8) Empowering rayon education departments to monitor school performance under the new financing mechanism based on established qualitative and quantitative indicators (including financial) and enabling them to support schools in making any necessary adjustments and corrections.
9) Considering changing the flow of funds, e.g., further consolidation/centralization of education sector funding through MOES and rayon education/finance departments to improve the equitable distribution of resources across small local government administrative units.
10) Disseminating achievements and results of reform implementation through mass media to continue to engender political and community support for changes and improvements.

Annex 1: Suggested Indicators to Measure Implementation of Education Financing and Management Reforms

This annex suggests a number of indicators that may be helpful in quantifying the effectiveness of implementation of education financing and management reforms from a number of dimensions. The indicators that have been assessed above are categorized into three groups:

Group A – indicators of the quality of school financial management;
Group B – indicators regarding performance effectiveness at school level; and
Group C – indicators regarding performance effectiveness at the sector level (influence on sector policy).

Group A Indicators describe managerial and administrative activities for schools given increased financial autonomy: registration of the school charter in the Ministry of Justice; independent accounting department; readiness of the school principal to work under financial autonomy (expertise in financial management and accounting at school); attraction/ involvement of the community in school management (cooperation with the Advisory Committee); volume of additional raised funds; the conduct of public hearings on school budgets, etc. The automated information database and reports submitted by the schools and rayon education departments in 2009-2011 were used in development of these indicators.

Group B Indicators determine school productivity under financial autonomy: average spending per student including costs on utilities; class size and number of students per class; student/teacher ratio, amount of the generated savings and reinvestment, etc. There is an assumption that these indicators are under control of rayon education departments, rayon financial departments, and local self-government administrations.

Group C Indicators define the level of political support of education sector reforms at the national and local level: number of the approved standard acts and resolution regulating per capita financing; share of schools that have transitioned to the new per capita financing model; optimization of the school network in the oblast; budgetary financing of schools; teaching load per one student; improvement of learning quality, etc.

Table 14. Criteria and Indicators for Evaluation of Efficiency of School Budgetary Spending

Indicator Group	Name	List of Criteria
Group A	Quality of school financial management indicators	1. Percentage of schools principals trained on financial management and accounting at school, % 2. Percentage of accountant trained on «school accounting» %. 3. Percentage of the schools that have independent accounting departments, % 4. Percentage of the schools that have Charters registered in the Ministry of Justice, % 5. Parent and community management (increase in the number of schools cooperating with the Advisory Committees), % 6. Percentage of charitable and other donor aid in school financing % 7. Percentage of money received from extra-curricular services in the overall schools financing structure, % 8. Number of schools that held public hearings on the school budget, %
Group B	Performance indicators at school level	1. Spending per student 2. Costs on utilities per student in the total spending 3. Reinvestment of savings at school, % 4. School aged children involved into extra-curricular educational activities, % 5. Number of students per one teacher (people) 6. Average class size (people) 7. Job combination ratio

Group C	Performance indicators at sector level	1. Amount of budgetary funds for school financing, % 2. Ratio between average monthly salary of school workers to average wage of workers in other sectors of economy 3. Percentage of the elementary and secondary education institutions in Chui oblast that have transitioned to per capita financing, % 4. School network optimization in Chui oblast, % 5. School capacity use ratio, % 6. Average class size in Chui oblast up to the average republican level in rural and remote districts, (people) 7. Teaching load per student, % 8. Number of the standard acts regulating schools under per capita financing and community management 9. Learning quality at schools in Chui oblast, %

Table 15. Evaluation of the Efficiency of Group A Indicators

Indicators on Quality of School Financial Management	2009	2011	Dynamics, %
Increased percentage of money received from extra-curricular education services at school level, %	1.3% (10.5/832.2) *100	1.4% (19.3/1397.7) *100	0.1
Percentage of school principals trained on financial management, %	0	100%	100
Percentage of accountants trained on school accounting, %	0	22.4%	22.4
Percentage of schools in Chui oblast that have independent accounting departments, %	9.7% (Issyk-Ata)	33.2% (98/295) *100	23.5
Percentage of schools in Chui oblast that have registered charters, %	13.3% (Issyk-Ata)	92.2% (272/295) *100	78.9
Community management (increased number of schools in Chui oblast cooperating with the Advisory Committees), %	17.4% (52 schools/299) *100	22% (65 schools/295) *100	4.6
Increased percentage of funds received as charitable and other donor aid from AC in the overall school financing structure, %	0.8% (6.5/832.2) *100	0.9% (10.7/1397.7) *100	0.1
Increased number of schools which held public hearings on the school budget formation	0	5.1% (15 schools)	5.1

Table 16. Evaluation of the Efficiency of Group B Indicators

Effectiveness Indicators at school level	2009	2011	Dynamics, %
Increase in spending per student	6274 soms	10291 soms	64%
Reduced percentage of costs on utilities per one student in the total spending, %	12.6%	9.8%	2.8%
Increased percentage of reinvested funds in the overall school budget, %;	0.7% (6,1: 832,2 *100	1.7% (23,1: 397,7) *100	1.0
Percentage of school aged children involved into extra-curricular educational activities, %	12.3% (16.6 people/ 135.0) *100	12.5% (17.0/135.8) *100	0.2%
Increased number of students per one teacher	18.1 people	15.5 people	- 14.4%

Increased average class size, people	22.1	22.9	3.6%
Decreased ratio of job combination by teachers because of increased teaching staff	1.4	1.1	21.4%

Table 17. Evaluation of the Efficiency of Group C Indicators

Effectiveness Indicators at sector level	2009	2011	Dynamics, %
Increase in the budgetary funds for school financing, thousand soms	832.2	1397.7	68%
Ratio of average teacher monthly wages and average monthly wages of other workers in the national economy, index	0.59 (3,638/6,161), soms	0.83 (8,406/10,165), soms, 2012	24%
Percentage of schools in Chui oblast that have transmitted to per capita financing, %	16.4%	100%	83.6%
Optimization of school network in Chui oblast (number of schools), %	0.3%	1.3%	1.0%
Increased ratio of school capacity use, %	98.4%	97.0%	- 1.4%
Increased coefficient of average class size to achieve the average republican level for rural and remote area, people, %	In the city – (432/407) *100 = 6.1% In the village – (866/746) *100 = 16.1%	In the city – (438/394) *100 = 10.9% In the village – (855/730) *100 = 17.1%	1.0%
Reduced teaching load per teacher (coverage of students), %	1-4 classes (42%)	1-6 classes (62%)	20%
Increased number of the standard acts regulating per capita financing and community management, % *	20	21	5%
Improvement of learning quality at schools in Chui oblast, %	37.8	39.5	1.7%

Conclusion: The lowest indicators were observed in terms of education performance at school level in view of small students/teacher ratio, small class size, inefficient use of the physical capacity of schools, etc. Two factors seem to have influenced school spending and performance indicators: 1) external factors – limited commitment of the local community, local self-government administrations, rayon education departments and rayon financial departments in order to optimize the school network in the rayon; and 2) internal factors – limited commitment of school administrations regarding optimization of teaching and non-teaching staff, generation of savings, decreasing school size, etc.

To further increase the efficiency of school budgetary spending, more attention should be paid to indicators that have shown “negative” results or negligible increases.