Teach or Perish:

The Stavka System and its Impact on the Quality of Instruction

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Abstract. The post-Soviet teacher salary system is referred to as a "teaching load" (stavka) system, because the number of teaching hours accounts for the wide range of teachers' income. This article discusses the challenges of the stavka system, presents a few changes and modifications over time, and provides examples of salary reforms of two countries: the 2007 teacher salary reform in Mongolia and the 2011 reform in Kyrgyzstan. The UNICEF Kyrgyzstan study identifies six negative consequences of the high correlation between the salary and the

number of hours taught: vulnerability of teachers, micromanagement of teachers, overcrowding of schools, vacancies as placeholders or "strategic vacancies", excessive teaching loads, the redistribution of teaching hours to non-specialists. The Government of Mongolia successfully replaced the teaching load system with a workload system in 2007. In Kyrgyzstan, the re-stratification process led to a revolt of those who lost in the wake of the reform. Within a period of two years only, they ensured that the stavka-system was, with a few exceptions, put back in place. Keywords: teachers, teacher salary systems, the teaching load (stavka), the weekly workload system, educational reforms

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To this day, several governments of, or with close ties to, the former Soviet Union continue to struggle with how to reform the teacher salary system that they inherited from their communist past. It is a system that rewards those teachers who manage to secure the greatest number of additional teaching hours, even if these hours are in school subjects for which the teacher does not hold an adequate qualification. The post-Soviet teacher salary system is referred to as a "teaching load" (stavka) system, because the number of teaching hours accounts for the wide range in teachers' incomes. This system is diametrically opposed to the weekly workload system of OECD countries, where the income of all employees, including that of teachers is based on 36–40 hours of work per week,; of which 22–29 hours are set aside for teaching.

This article discusses the challenges of the *stavka* system, presents some of the changes and modifications over time, and provides

examples of the salary reforms of two countries: the 2007 teacher salary reform in Mongolia and the 2011 reform in Kyrgyzstan. The Government of Mongolia successfully replaced the teaching load system with a workload system in 2007. Like any other state employee, teachers in Mongolia work for 40 hours per week of which they are expected to teach for 19 hours and use the remaining hours for lesson planning, grading, meeting with students, parents, and fellow teachers, and for performing administrative tasks [UNICEF Mongolia, 2012]. The Government of the Kyrgyz Republic attempted to do the same in 2011 but ultimately failed to abandon the stavka system: within a period of only two years, it reverted back to a remuneration system that heavily relied on teaching hours. In the end, the Government of the Kyrgyz Republic succumbed to pressure from the municipal government of Bishkek and the Teachers Union by lifting the ceiling for permissible working hours from 32 hours (decree number 19, January 2011) to 49 hours (decree number 373, June 2013), a ceiling that was not only higher than before the 2011 reform but curiously also exceeded the limit prescribed in the Kyrgyz Labor Law [UNICEF Kyrgyzstan, 2014].

1. Empirical Studies on the Situation of Teachers

A brief review of the literature, followed by a few paragraphs on the database used for this article, may be in order here. There are numerous studies on the situation of teachers, published in Russian as well as in the national languages of the Central and Eastern Europe and the Commonwealth of Independent States (CEECIS) region. In addition, there are a few empirical studies, written in English, which are readily accessible to researchers based outside the region. The following does not represent a comprehensive overview of important research carried out on the teacher remuneration system in the CEECIS region but rather illustrates in an exemplary manner the type of empirical studies that have been conducted on the topic.

Two studies are important for understanding the history and the political context of the Soviet salary system: the landmark study on the origins of the remuneration system, entitled *Financing Soviet Schools* and written by the eminent scholar of comparative education Harold J. Noah [1966] and the book *An Economic History of the USSR: 1917–1991* [Nove, 1993]. Alec Nove's book covers the entire period of Soviet rule and ends with a chapter on Gorbachev's failed attempt in 1987 to introduce a more differentiated salary system that would take into account the broad range of skill levels, notably between manual workers and highly trained specialists.

In addition to these economic analyses, there is a remarkable body of research that uses qualitative and ethnographic methods to capture the situation of teachers in the first twenty years after the political changes of 1991. The studies carried out by Alan de Young, Sarfaroz Niyazov, Duishon Shamatov, and Iveta Silova very effectively capture the early and late transition period in the CEECIS region. Synopses of

their work are assembled in the volume *Globalization at the Margins: Education and Postsocialist Transformations in Central Asia*, edited by Iveta Silova [2010].

The third group of scholars has, over the past few years, conducted dissertation research on the situation of teachers in the region. It is expected that their dissertations will be published as books, journal articles, or book chapters over the next few years. Examples of outstanding dissertation research include the work of Olena Aydovera (Michigan State University, 2015), Nurbek Teleshaliyev (Cambridge University, 2016), Magda Nutsa Kobakhidze [2016] and three dissertations completed at Teachers College, Columbia University: Erin Weeks-Earp [2015], Simon Janashia [2016], Raisa Belyavina (expected 2017).

Finally, there is a plethora of commissioned research on the topic produced by national and international experts, funded by governments, international organizations, or non-governmental organizations. Precisely because it is commonly acknowledged that the teacher salary is too low, the national education budget limited, and the challenges with fixing the system nearly insurmountable, this fourth group of analytical work on the *krizis pedagogicheskogo kadra* (English: crisis of the pedagogical cadre) has been in great demand over the past few years.

It is noticeable that the two genres of literature—academic research (the first three groups) and commissioned policy analysis (the fourth group)—do not relate to each other even though, more often than not, the same authors produce both types of research. In my own writing on the topic, I attempt to bridge the divide between foundational research in academe and commissioned research in policy studies. When writing for an academic audience, I draw on the stavka studies to demonstrate the existence of structurally different remuneration systems across regions. I have made it my intellectual project to understand exactly why traveling reforms resonate at a particular time and under certain circumstances (focus on reception), and how these imported global education policies, "best practices" or broadly defined international standards are subsequently locally adapted, implemented, or re-contextualized (focus on translation). I noticed that uncritical policy borrowing from one type of system to another incompatible system makes imported reforms such as the global teacher accountability reform, reflected in performancebased promotion, teacher incentive schemes or teacher score cards, unsustainable and short-lived. Typically, such imported reforms constitute mere add-ons to the existing remuneration system in the form of pilot projects and they only last for the duration of external funding. The governments neither scale up the donor-driven reform at national level nor do they institutionalize them (see [Steiner-Khamsi, Stolpe 2006, Steiner-Khamsi, 2012, Steiner-Khamsi, 2015]). In the technical reports on teacher remuneration that I have producedwith funding from the World Bank, UNICEF, and USAID— for over a dozen governments, I attempt to understand the "logic" of the fragmented (post-) communist salary structure, examine its anomaly and malfunctions in these capitalist times, and document the various attempts that governments of the region tried in order to save, remedy or replace the *stavka* system. In this article, I draw mainly on the World Bank-funded studies in Mongolia [World Bank, 2006] and Tajikistan [Steiner-Khamsi, 2007] as well as on the UNICEF-funded studies in Mongolia [UNICEF Mongolia, 2012], Kyrgyzstan [UNICEF Kyrgyzstan, 2009, 2014] and the comparative study in six countries of the CEECIS region [UNICEF CEECIS, 2011].

2. The Fundamental Divide between Teacher Salary Systems

In 2005 the World Bank commissioned a compelling study on teacher salaries in Mongolia as part of the Public Expenditure Tracking Survey Mongolia [World Bank, 2006]. We were surprised to find the extent to which the salary structure was fragmented, that is, composed of a low base-salary and supplemented with all kinds of additional items such as additional teaching hours, a stipend for serving as class teacher, a stipend for grading student notebooks, a stipend for managing a lab at school, etc. Since these stipends or supplements were not always paid in full but rather depended on the arbitrary assessment of the deputy school director on whether the teacher really properly graded student notebooks (the use of red ink was at the time mandatory to make supervision easier), effectively managed the class (supplementary deductions were made for students that came late to class or cut class), and took care of the lab (salary supplement deductions were made for broken equipment), the teachers were not able to predict their monthly take-home salary.

The study on the post-Soviet salary structure was later on replicated in Tajikistan, Kyrgyzstan, Mongolia, and in a six-country study of the Central and Eastern Europe and the Commonwealth of Independent States region (see [Steiner-Khamsi, 2007; UNICEF CEECIS, 2011; UNICEF Kyrgyzstan, 2009, 2014; UNICEF Mongolia 2012]). These studies confirmed the post-Soviet legacy in the region: all educational systems used to have a teaching load system (Russian: stavka) in place in which additional teaching hours helped boost the low base salary of teachers. In the school year 2007/2008, the salaries of teachers in the post-Soviet region (EU accession countries excluded) ranged from US\$47 to US\$215 per month. The relative salary was not only low but also below the national wage average, ranging from 53% to 92% of what others with a similar level of education earned in the respective country. As a result, teachers at school level fought over who gets assigned additional teaching hours, regardless of whether these additional hours were in their own subjects for which they were trained or whether they merely substitute for teachers of other subjects that were on study leave, maternity leave, or otherwise absent.

Figure 1. Total Pay of Teachers in Tajikistan

Base Salary	Supplements	Allowances	
Fixed Base Salary	Class Teacher	 Transportation 	
Salary Depending on Teaching Load	Grading Student Notebooks	 Housing 	
	 Supplement/Coefficient by 	 Plot of Land/Garden 	
	Rank	Discount on Utilities etc.	
	 In total: 3-12 Supplements 		
Bonuses	Social Benefits	Other Income	
Bonuses - Annual (performance	Social Benefits Pension	Other Income • Private tutoring	
Annual (performance based)Event-specific (e.g.,	• Pension	 Private tutoring Fees for special classes inofficial contributions by	
Annual (performance based)	PensionSick leave, maternity leave	 Private tutoring Fees for special classes	

Figure 1 illustrates the complex salary structure in the postsocialist region, using Tajikistan as a case. Since the publication of the study, the salary structure in Tajikistan has undergone a reform¹ which has integrated the various supplements (over ten supplements) into two supplements (class teacherand notebook checking).

The fragmented teacher salary in Tajikistan is indicative of the teacher salary structure in the CEECIS region where the base salary is low, the benefits for civil servants attractive, and the dependence on additional income great, notably in the form of teaching additional hours but also in the form of private tutoring, fees for special classes, or unofficial contributions by parents. The fragmented salary structure is a legacy of the communist past where all workers were supposed to be paid equally and, depending on the actual work, would receive professional supplements. At that time all workers were considered public servants and received, from today's perspective, generous "social benefits" including free housing and a plot of land. Today, the markers of public sector jobs, notably generous allowances and attractive social benefits, are barely visible and are associated with a bygone era.

There is a broad consensus among experts in and on the region that the *stavka* system has a disastrous impact on teaching and learning. Primarily, it is incomprehensible why there is such a resistance to change. It is important to bear in mind that some administrators in the region favor the teaching load to the workload

Source:

2011].

[UNICEF CEECIS,

etc.)

¹ See [Steiner-Khamsi, 2007].

Figure 2. The Fundamental Divide between Salary Systems

TEACHING LOAD SYSTEM

Flexibility/abuse for both the education sector and the teacher: Teachers teach from 4 to 40+ hours

- The role of the teacher is reducted to teaching and all other activities (including pedagogical ones) are paid extra
- Unpredictable income, Small base salary for 1 teaching load,. Teachers take on additional teaching hours and/or take on additional job(s) in or outside the school.

WORK LOAD SYSTEM

- The profile of the teacher and the teacher standards are clearly defined. Teachers work either part time or full time.
- The role of the teacher implies teaching and all activites related to education. The teacher is typically expected to stay at school beyond the actual teaching hours.
- Predictable income, teachers are not permitted to take on additional jobs (except if they work part time).

system due to the flexibility it offers in hiring part-time teachers. Put positively, the teaching load system allows schools in rural areas to recruit qualified teachers part-time who otherwise, due to better compensation, would work outside the profession. The teaching load system also makes it possible to recruit teachers that only wish to work part-time either because of family or household committments (typically female teachers) or because they have a second job as farmers, professionals or merchants. Put negatively, the teaching load system enables governments in developing countries to pay low salaries, enlist teachers for part-time positions, rely on teachers making money off additional teaching hours and seeking additional income from jobs outside school, collecting (official and unofficial) fees paid by parents, and engaging in private tutoring. Needless to say, such harsh work conditions are likely to generate seasonal teacher absenteeism (especially during harvesting) but also other incomerelated absences, and overall puts a great pressure on teachers to secure income from multiple sources. The next figure summarizes the key features of the two fundamentally different salary structures.

In the teacher salary studies that were mentioned in this section, we found a clear divide in teachers' professional identity between the two vastly different salary systems: the teaching load system (base salary for 18–24 hours of teaching per week or a fraction thereof, compensation for additional teaching hours, and compensation for all additional pedagogical activities), carried over from the Soviet past, and the weekly workload system (36–40 hours of work per week including all activities at school), in place in OECD countries including those EU member states from the CEECIS region. In instances where teachers only teach for half a teaching load (9–12 hours) or less, teachers identify with their primary job as farmers, merchants, or professionals and only "help" the school because there is a shortage of qualified teachers.

Source: [UNICEF CEECIS, 2011. P. 77].

18000 Monthly Salary y = 259.92x + 2269.7(Som) $R^2 = 0,54415$ 16000 14000 12000 10000 8000 6000 4000 2000 Weekly Teaching Hours (Hours) 0 0 10 20 30 40 50 60

Figure 3. Scatter Plot of Actual Teaching Load and Teacher Salary

Source: [UNICEF Kyrgyzstan, 2014. P. 33].

3. Challenges of the Stavka or Teaching Load System

In the UNICEF Kyrgyzstan study, we collected salary information (tarifikazie or tariff tables) from 527 teachers that were employed in ten schools [UNICEF Kyrgyzstan, 2014]. Maximum variation sampling criteria were used to ensure that the ten selected schools represent the widest possible range of schools in terms of location (rural/urban), language of instruction (Kyrgyz, Russian, Uzbek), and type of schools (primary schools, complete secondary schools, lyceums/gymnasiums). Similar to previous teacher salary studies carried out in Armenia, Mongolia, Tajikistan, and Uzbekistan, the ability to take on additional teaching hours greatly determines the size of a teacher's income. Figure 1 illustrates the high correlation between monthly salary (depicted in the Kyrgyz currency *som*) and the weekly teaching hours, based on data analyzed from 527 teachers that were listed in the ten tariff tables of the sample of schools.

More than half of the variance (54%) in the monthly salary is explained by the number of teaching hours: the Pearson correlation is 0.738 and is significant at the 0.01 level. This explains why teachers have remained so keen to take on additional teaching hours.

The high correlation between the salary and the number of hours taught is problematic for a variety of reasons. The UNICEF Kyrgyzstan study [2014. P. 34ff] identifies six negative consequences that are reproduced in full in the following.

3.1. Vulnerability of Teachers

It is up to the school administration, in particular the school director and the deputy school director, to assign teaching hours. Primarily, the assignment is done based on subject match, that is, teachers are assigned to primarily teach their subject of specialization. However, in larger schools the school administration is in a position to choose among qualified teachers and so the question becomes which teachers are given preference for teaching additional hours. Not only the focus group interviews with teachers but also the individual interviews with school administrators, carried out in the UNICEF Kyrgyzstan study, explored the negotiation process and allocation criteria in greater detail. There is indeed competition among teachers to secure additional hours. More often than not, younger teachers lose out and their inability to gain additional income and the sense of inequality leaves them frustrated. The qualitative interviews in fact conveyed a sense of "intergenerational war" over securing additional teaching hours.

The school administrators defended their preference for experienced teachers as follows: "Experienced teachers are better teachers and of course they should be given preference when hours from unfilled positions are distributed." Often school directors justified their choice by interjecting additional justifications such as "this is what parents ask for" or "this is what the collective of teachers decided."

The teachers were very vocal about the need to take on additional teaching hours. A group of older teachers commented in a group interview:

"Young teachers leave the profession anyways as soon as they find a better paid job. It is us, the experienced teachers, that keep the school going."

In fact, there is a large turnover of young teachers during the first few months of their employment. The question is, however, whether young teachers abandon the school, and possibly the profession, because they feel ill-prepared to teach in front of a large class, are frustrated once they realize that other more experienced teachers earn much more due to having secured additional teaching hours, or embrace a better paid job opportunity outside the teaching profession. There is no doubt, however, that the anticipation of school administrators and older teachers that "young teachers will leave *anyway*" functions as a self-fulfilling prophecy which both reinforces the prejudice towards young teachers and justifies the inequitable redistribution of hours.

3.2. Micromanagement of Teachers

Even under the previous system, teachers complained that they had to fill out too much formulaic paperwork that took time away from pedagogical work. Each and every supplement (in particular, lesson preparation and grading student notebooks) had to be documented and the deputy school director or, in larger schools, the head of the departments supervised the work carried out by teachers. Even though, after the 2011 salary reform in Kyrgyzstan, fewer supplements existed than before, the micromanagement of teachers increased

rather than decreased. The move from a teaching load to a teaching hour system implies that the school administrator must record for each hour the work of a teacher. In practice, this entails that the school administrator must spend all day going round the school to ensure that teachers are doing what they are paid for, that is, teaching, grading student notebooks, preparing classes, mentoring other teachers, engaging in extra-curricular work, etc. In also means that teachers have to constantly keep track of their activities, fill out forms and submit numerous reports documenting their working day.

The 2006 Public Expenditure Tracking Survey in Mongolia documents in detail how deputy principals punished teachers at the time for all kinds of "infractions" by having a portion of their salary supplements or, in more severe cases, a portion of their base salary deducted for missing class, coming late to class, for superficially grading student notebooks, for poor lesson preparation, and also if students damaged equipment in the classroom, came late to schools, or showed in any other way, by Mongolian standards, unruly behavior or signs of being insufficiently disciplined [World Bank, 2006; Steiner-Khamsi, Stolpe, 2006. Chapter 7].

Nurbek Teleshaliyev examines in great detail how the micromanagement of teachers damages teachers' professional identity and leaves little room for professional standards and work ethics [Teleshaliyev, 2013]. Both current value systems—the post-Soviet value system, inherited from the past and endured into the present, and the global teacher accountability policy, championed by some international donors—have led to the micromanagement of teachers and to a further decline in the social status of teachers.

3.3. Overcrowding of Schools

One striking phenomena is the overcrowding of schools or, put another way, the lack of school facilities in urban and semi-urban areas in Kyrgyzstan. As a result, a great number of teachers work in two shifts. In 2012, 22.5% of all schools were teaching in one shift (497 schools), 73.7% in two shifts (1,624 schools), and 3.8% in three shifts (83 schools). In other words, three out of four schools in the country were operating in two shifts. Overcrowding is often a transitional phenomenon that results from a process of urbanization, that is, internal migration from rural to urban areas. Educational systems throughout the region had to face the challenge of overcrowding in the 1990s and possibly in the first few years of the new millennium when living standards and job opportunities between rural and urban areas became unequal. Most educational systems in the CEECIS region, however, systematically built new schools in both the capital and semi-urban locations in order to not only suspend teaching in three shifts altogether but also to dramatically reduce the number of schools who taught in two shifts.

There are no signs of such a development in Kyrgyzstan and in fact, quite to the contrary, schools pride themselves of being overcrowded

and having enrolled student numbers beyond the capacity of their facilities. Curiously, they regard overcrowding as a quality indicator because the school has evidently succeeded in attracting many students. It is very popular among teachers to work in schools that have several parallel classes per grade and offer multiple shifts. It enables them to take on additional hours and thereby boost their salary. Thus, ultimately overcrowded schools do indeed attract experienced teachers but these teachers who work in two or three shifts end up having fewer hours for preparing their lessons, providing formative evaluation of students, or engaging with their peers or students' parents.

The two-shift system is unpopular among parents but, as explained above, very popular among teachers. The Per Capita Financing (PCF) scheme, which was scheduled to be scaled up throughout the country in 2013 but was then delayed, will most likely reinforce the negative trend. In the PCF scheme, student enrollment determines the size of the salary fund and it is in the financial interest of the school and the teachers—but not necessarily in the pedagogical interest of the students—to over-enroll students.

3.4. Vacancies as Placeholders or "Strategic Vacancies"

An interesting phenomenon identified for the first time in the 2014 study was the fluctuation of documented vacancies over various months of the school year. Even though school administrators are explicitly requested to fill vacancies before the start of the new school year², some principals prefer to keep a number of positions vacant so that they can split the vacant hours and redistribute them among the existing teaching workforce of the school. As a result of this redistribution practice, the average teaching load and the average salary of teachers is higher than projected at the beginning of the school year. Our UNICEF research team in Kyrgyzstan proposed to label such unfilled positions "strategic vacancies" and considered them to be a cause of great concern. This practice is common in urban and semi-urban areas where schools are large and teachers may easily take on additional hours if the appropriate funds, saved from unfilled positions, are made available. Even though this practice is considered illegal, there is evidence from the comparison of tariff tables (which shows vacancies) and salary disbursement forms (where vacancies disappear or rather the vacant hours are distributed among teachers) to suggest that such a practice does exist. The mere fact that so many schools in Bishkek and in other urban areas claim to be unable to fill vacant positions should be cause for suspicion and further scrutiny. These are locations where the supply of young specialists is high and where most and many of them remain unemployed. Upon further

² See Government decree no. 270 entitled "Approval of the procedure for the calculation of wages for employees of educational institutions," 31 May 2011.

questioning during interviews, one of the school principals explained that

"After the reform we did hire young teachers, but they left after a few months. Now we would rather leave the vacancies vacant and distribute the hours among the older teachers that stay. It is also a way for us to keep good teachers in the profession."

In seven of the ten schools who took part in the study, there were vacancies reported that could be considered "strategic vacancies," that is, positions that were intentionally left unfilled. In effect, these schools were purposefully understaffed. To be fair, some of these strategic vacancies were in subjects where the instructional hours/week are very low (e. g., music, physical education, labor classes) and where it would be difficult to employ a full-time teacher.

However, the opposite was also in operation: overstaffing. The other three schools were in rural locations where the size of the student population was small and the allocation of additional hours was not possible. In fact, one of the schools in the sample experienced a sizeable student loss over the past few years and used the inverse approach to teacher employment: almost all of the teachers had less than a regular teaching load (twenty hours) and many of them were only part-time teachers, that is, were teaching ten hours or less. This was a strategy of the school administration to keep teachers on the payroll despite dwindling student numbers. In this particular instance, schools function as a safety net and help produce wage earners, and later on pension recipients, in a village that otherwise has a subsistence economy.

The additional data on fluctuations of vacations over the course of the school year substantiates and provides further statistical evidence for the phenomenon of strategic vacancies. The Human Resource Department of the Ministry of Education and Science of Kyrgyzstan records monthly the number of vacant positions. It is therefore possible to compare the reported vacancies in September (beginning of school year) and in January (in mid-school year) of every year. The study investigated monthly fluctuations for five school years (2009/10 until 2013/14) and found that the number of vacancies is consistently higher in the month of September compared to the month of January. Less than one-third of the vacancies are filled by midschool year (January) and the rest of the vacancies are broken up in vacant teaching hours and redistributed among teachers in the school. For example, in school year 2013/14, 1,553 vacancies were reported nationwide in September 2013. By January 2014, 412 of them were filled (27%) and the remaining 1,141 (73%) were redistributed among other teachers at the school.

Having said this, it is difficult to make causal inferences based on descriptive statistics alone. Arguably, it is impossible to draw a conclusion as to whether two-thirds of vacancies remain unfilled by January of each year because (a) no qualified teachers were found who were willing to assume the openings, (b) positions were purposefully kept vacant in order to redistribute vacant hours and thereby boost the salary of the teachers at the school ("strategic vacancies"), or (c) whether new teachers were hired in October, November, or December but then left after the winter break. Judging from the interview data in the 2014 UNICEF Kyrgyzstan study, all three scenarios seem to apply. These three causes for vacancies are not mutually exclusive.

In fact, a teacher's salary is low compared to the salaries of specialists in other professions. Therefore, it is possible that young specialists either do not apply or, if they apply and accept the position, leave as soon as they find a better paid job. In the same vein, experienced teachers are frustrated about their low income, especially in Bishkek. Therefore, they exert pressure on the school administration and demand additional teaching hours to improve their income. The 2011 salary reform eliminated "categories" (salary ranks) and placed a greater weight on formal qualifications by assigning the highest salary rate to teachers with a Master's degree. The losers of the 2011 salary reform were clearly both the urban and the older teachers given the significant increase in allowances granted to teachers in rural and mountainous areas as well as the rise in the entry salary for young specialists who typically graduate with the equivalent of a Masters degree, that is, they have a higher qualification than older teachers. Therefore, more than before, the older and experienced teachers felt entitled to be assigned additional teaching hours as well as bonus payments. It goes without saying that the ones left behind in the battlefield were the young teachers. In the intergenerational fight over additional hours and bonus payments [UNICEF Kyrgyzstan, 2014; Belyavina, 2015], the young specialists are left vulnerable, powerless and defeated contributing possibly to their decision to leave the school or exit altogether from the teaching profession.

It is interesting to observe that the assignment of teaching hours is one of the few areas where school administrators are given complete autonomy and uncontested decision-making authority. In an attempt to curb favoritism and nepotism in the redistribution of vacant teaching hours, deputy principals in Mongolia (called education managers in Mongolia) were required to discuss the redistribution of vacant teaching hours at the beginning of the school year with the teacher collective. In a similar spirit, the 2011 salary reform in Kyrgyzstan limited the number of hours that principals and deputy principals were permitted to teach themselves. However, how policies, rules, and regulations such as the ones listed in this paragraph are modified, undermined, or reverted *at the school level*, is a research question of utmost importance which, compared to the educational research carried out in other countries (e.g., [Cuban, 1998]), is severely understudied in the CEECIS region.

3.5. Excessive Teaching Loads

Compared with educational systems in the region and in other parts of the world, the ceiling for the maximum amount of permissible teaching hours (31 hours) is very high in Kyrgyzstan. School administrators may assign an even higher teaching load if they are in a position to demonstrate that a teacher shortage exists. As explained before, it is common to list vacancies in the tariff tables, which then disappear over the course of the school year because they are either filled (national average approximately one-third) or because the vacant hours are redistributed among the teachers of the school (approximately two-thirds of vacancies). Given the symbolic nature of the specific line item on the tariff table listed as a "vacancy" (referred to in the UNICEF Kyrgyzstan study as "strategic vacancies"), the requirement of providing sufficient evidence of a shortage is not enforced. That is, there is in practice no upper limit for teaching.

In other words, the option of taking on excessive teaching loads has not been resolved with the 2011 salary reform. As before, school administrators are at liberty to make the case for the need of a few teachers at their school to take on teaching loads that well exceed the maximum permissible weekly workload (if teaching hours and other hours are combined) that the Labor Law allows.³ Overall, it is a small number of teachers that teach excessively and most of them are in urban and semi-urban areas. The interviewed school administrators and teachers justify their need to take on an excessive teaching load. For example, a group of teachers unanimously exclaimed during a group interview: "We don't want more free time, we want more money." Similarly, a group of teachers in the capital city referred to the high living cost in Bishkek to explain why they work in two schools, why they depend on working in two shifts, and why they do not mind taking on an excessive teaching load:

"For a city teacher, 10,000 *som* is kopeks.4 For a rural teacher, 10,000 *som* is capital."

3.6. The Redistribution of Teaching Hours to Non-Specialists

A redistribution of hours is to some extent unavoidable and flexibility in the teaching schedule is key for any well-functioning school. However, it is problematic if (a) positions are purposefully kept vacant and, as explained above, young specialists are shut off from employment and (b) if hours are distributed to teachers regardless of their area of specialization only to help boost their salaries.

The UNICEF Kyrgyzstan study asked teachers in ten schools (N=217) to indicate their subject specialization or qualification, list their weekly teaching hours and to include a breakdown by hours of

³ See Labor Law of the Kyrgyz Republic, article 379, entitled "The working time of teachers" (decree no. 106, 4 August 2004).

⁴ Refers to the Russian rubles currency used previously in Kyrgyzstan. *Kopeks* are associated with small denominations, that is, very little money.

the subjects they teach. This allowed the research team to specify (i) the *actual* teaching load (as compared to what is reported in tariff tables) and to determine (ii) how many teaching hours are taught in one's own subject specialization as opposed to how many are taught in *other subjects* for which the teacher does not possess training, a specialist diploma or a degree.

A number of responses included teachers specifying the grade levels of the subject(s) they teach. The research team purposefully disregarded grade level in their analysis to make the definition of "own subject specialization" as comprehensive as possible. For example, a teacher of Russian language and literature is considered teaching in her own subject even though she may have indicated that she is teaching these subjects in elementary grades. Only the teachers who indicated that they teach elementary grades as their main subject were enumerated as elementary school teachers. The same applies to Kyrgyz and English language and literature teachers as well. The number of teachers in the sample with a subject specialization in computer science, drawing, ethics, information technology, physical education, history, geography, informatics, music, and military preparation was small (N=38). We therefore grouped them in Table 14 under the category "other subjects." Finally, nine out of 217 teachers either did not indicate the subject that they teach or did not specify the number of hours that they teach. They are listed in Table 14 in the rubric as "no main subject or no hours reported."

The last column in Table 14 illustrates the wide range of actual teaching loads as reported in the teacher survey. In some schools, Russian teachers and English teachers take on excessive loads teaching up to 39 hours or 46 hours per week, respectively. The current system also allows for part-time teachers in music, arts, physical education, computer science (subjects with low weekly instructional hours) or for teachers who choose teaching as a secondary profession, teaching only half a day or only a few hours per week, and devote most of their time to other economic activities outside the school. The lowest teaching load in the survey was for teachers of Geography (2 hours per week) and Kyrgyz (3 hours per week).

In 2014, the actual teaching load for elementary and secondary school teachers in Kyrgyzstan was on average 22.42 hours per week. Table 1 represents weighted averages and thus reflects the large number of elementary school teachers (N = 50) in the sample. Secondary school teachers tend to take on more teaching hours than elementary school teachers.

From the 22.42 hours per week, 17.96 hours are taught in one's subject specialization and 4.46 in a second or third subject for which the teacher neither has a qualification nor training. This means that on average, four and a half hours per week or close to 20% of all teaching hours are taught in substitute subject(s). This is an extremely high proportion of hours taught by non-specialists.

Table 1. Hours Taught in Own Specialization and in Other Subjects

Subject specialization	Teachers in sample	Average of total teaching hours/week: all subjects	Average of teaching hours in own subject	Number of teachers teaching in other subject(s)	Highest/lowest teaching hours in own subject
Elementary School	50	20.90	19.76	7	31/11
English	18	26.50	25.11	4	46/8
Kyrgyz	32	23.28	20.50	17	33/3
Math	26	26.88	18.38	19	34/4
Science	15	25.13	20.27	9	36/8
Russian	29	24.34	16.79	23	39/3
Other subjects	38	20.29	12.82	23	40/2
No main subject or no hours reported	9	22.50	5.00	1	
All Subjects	217	22.42	17.96	103	42/2

Source: Adapted from [UNICEF CEECIS, 2011. P 39].

Math and Russian teachers, in particular, tend to be used ubiquitously, that is, they are assigned the greatest number of additional hours in subjects for which they have no qualification. The English language teachers are the ones who are able to accumulate additional hours within their own subject specialization, that is, they tend to take on only a few non-specialized teaching hours. There is a common misconception that "only" teachers of subjects with low instructional hours (computer science, art, history, geography, physical education) teach, out of necessity, subjects for which they do not have a qualification. It is accurate that these teachers (listed in the row "other subjects") take on additional hours in second and third subjects. In fact, 60.53% of them do take on additional hours in non-specialized subjects. But it may come as a surprise that this group is surpassed by Russian and math teachers: close to 32% of the hours that a math teacher takes on are in subjects for which the math teacher may not qualification. The same applies to Russian language teachers. Over 30 of the hours that a teacher of Russian takes on are in a subject for which she or he does not hold any diploma or degree.

The PISA 2006 study identified the practice of substitute teaching or "subject cross-over" as the main source for the low quality of instruction (see [UNICEF CEECIS, 2011]). In Kyrgyzstan, 62% of all schools reported vacancies in science and almost all of these schools (59% countrywide) cope with this shortage by filling their vacancies with teachers who take on additional lessons in science, or by assigning unqualified teachers (that is, teachers qualified in other subjects but with no training in science) to teach science.

The sensitivity over the importance of subject specialization visibly increased over the past few years. In the 2009 UNICEF Kyrgyzstan study, school administrators and teachers did not problematize it as an issue that teachers take on hours in subjects that do not correspond to their area of specialization. However, five years later, it is addressed as an issue. In fact, administrators and teachers tried to avoid answering the question of how many hours they teach in subjects for which had not received any training. MOES issued two letters or guidelines in 2011 (No. 04–7/3603 from 7 July 2011) and 2014 (No. 04–7/471 from 27 January 2014) specifically addressing this issue. In these letters, MOES instructed school directors to only endorse the practice if the school's Teachers Advisory Board recommend the practice and if the teachers consents to undergoing re-training prior to teaching subjects for which she or he had no training. However, in practice, substitute teaching or teaching a subject for which the teacher has had no training is very common. From the 217 teachers that filled out the questionnaire, only 19 of them (9%) declared a second teaching specialization.

Other governments of the region have acknowledged the teaching of subjects by non-specialists as a quality problem and either trained teachers in the additional subjects by means of in-service teacher training (example: Uzbekistan; see [UNICEF CEECIS, 2011]) or piloted pre-service teacher education programs in which future secondary school teachers were trained for a subject area (2–3 subjects) rather than one single subject.

4. Conclusions

Raising the salary of teachers and changing the composition of a teacher's monthly remuneration are no small endeavors. In most countries, personnel remuneration absorbs 75% or more of the national education budget [UIS, 2013], leaving too little room for other important items such as teaching/learning supplies, maintenance of facilities, targeted support for poor students and for students with special needs, and professional development of staff.

The fragmentation of the teacher salary, a main feature of the *stavka* system, used to follow a compelling logic that attempted to secure the supply of qualified teachers for all schools in the country, regardless of location, language of instruction, and type of school. The uniform but low base salary, supplemented with an ever-increasing number of professional supplements, enabled the justification of different salary levels in a society that, by political dictum, had to appear egalitarian. Perhaps one of the greatest differentiations across and within countries of the region was the extent to which local or municipal governments were able to complement the teacher salary with allowances in the form of an additional salary payment (e.g., 13th salary), discount for utilities and public transportation, or housing subsidy. To this day, most systems have a bonus (*premie*) structure

in place that is added as a percentage of the institution's salary fund and, against its original purpose, is more often than not distributed equally among the staff at the school.

Today the great fragmentation of the salary creates a managerial problem as it requires a large bureaucratic apparatus at school and central level that enforces the standards for supplements which, taken individually, only have a low nominal value. The fragmented salary structure inevitably results in an unpredictable monthly salary because deductions from salary supplements are made if the tasks are not fully carried out in a given month. Overall, the low base salary, the need to closely supervise and control teacher's work (not quality nor performance of work but rather hours worked on the task), the fragmentation of the salary, and the unpredictability of the salary have turned teaching into an unattractive profession.

Clearly, there are a few issues that make this particular salary structure difficult to sustain. Apart from the problems that are generic to this type of salary structure (notably, the micro-management of teachers, that is, the task of deputy-principals to closely monitor and record teachers' work hours on different activities), there are also external challenges. In most countries of the region, the private sector is offering much higher salaries than the public sector and therefore creates a domestic brain drain from the public to the private sector. In an attempt to make the teacher salary more attractive, four different reform strategies have been tried in the ECA region:

- (i) periodical *linear* salary increases for all teachers, typically in response to inflation or political change:
- (ii) salary increases by means of incremental reforms: that is, the structure of the stavka system is kept intact but the statutory teaching load is decreased, the number of supplements is increased, or the nominal value of supplements is increased resulting in an overall increase in teacher pay. Teachers' Unions in the region tend to refer to these kind of incremental reforms as "cosmetic changes," because they do not lead to visible improvements in the situation of teachers;
- (iii) selective salary increases using a *targeting strategy* by either targeting salary increases for teachers at particular schools, in particular locations, or high-performing teachers.
- (iv) salary increases by means of fundamental or structural reforms either by (a) abandoning the teaching system and replacing it with a workload system, or by fully integrating the salary supplements into the base salary and setting a weekly limit for teaching hours,

The two examples of fundamental teacher salary reforms (Mongolia in 2007, Kyrgyzstan in 2011), interspersed for the purpose of illustration throughout this article, are worth comparing in greater detail. Both reforms have been well documented and analyzed in UNICEF-funded

policy research [UNICEF Mongolia, 2012; UNICEF Kyrgyzstan, 2014]. The reforms were similar in many regards with two noted exceptions:

First, the increase of teacher salaries was significant in Mongolia, lifting the below-average teacher salary to the 5–10 highest percentile of public service jobs [UNICEF Mongolia, 2012]. Clearly, the Government of Mongolia used the economic boom of the country, fueled by the mining industry (gold, copper, coal), to significantly raise the salaries of its public servants. Such a policy window did not open in the context of the Kyrgyz reform. There, the salaries were also raised approximately three times as a direct result of the 2011 reform. But they remained below the average salary of public servants in Kyrgyzstan [UNICEF Kyrgyzstan, 2014].

Second, the Kyrgyz salary reform was issued in a great rush because of tremendous pressure from the street: dissatisfaction among teachers was considerable. Beginning in 2008, teachers started to organize themselves and demanded retroactive payment of the teaching experience supplement [pedstaj] not only on the base salary but also on e additional hours. Two years later, after the Revolution of April 2010, political tensions were high and masses of public servants took to the street. The three most vocal groups were military, medical, and education workers. In response to public pressure, the Ministry of Education and Science, with the support of the State Teacher Union had national expert groups develop possible solutions and scenarios for replacing the teaching load system with a new system based on the weekly workload. The new reform went into effect a few months later. It was issued on January 19, 2011.

The fundamental salary reform of 2011 was well intended: it meant to resolve the teacher shortage in rural areas and attract teacher education graduates to the profession. As mentioned above, an unintended side effect was that the same policy that incentivized teachers in rural schools and young teachers, was disastrous for older teachers and teachers in urban areas. Under the old system, older or experienced teachers benefited twice from the stavka system: their base salary was higher than that of young teachers because of their teaching experience [pedstail] and because of the semi-automatic promotion that already catapulted them into the highest salary rank or "category" after 15 years of service or less. In the new post-2011 system, they not only lost their entitlement to a higher salary based on their rank or category, but also they were put at a disadvantage vis-àvis younger teachers who tended to have a higher qualification (M.A. degree) than they held. In addition, teachers in urban schools who were accustomed to amassing additional teaching hours to boost their salaries, suffered from the 2011 reform that initially (lasting for a few months only) strictly enforced a statutory teaching load of 20 years.

Both points regarding the differences in context, mentioned above, need to be taken into consideration: the timing of fundamental reforms and the support from those affected by a reform matter a

great deal. Every fundamental reform, perhaps most visibly in the area of salary reform, implies a re-stratification process. That is, some groups that used to be under-privileged under the old policy (in Kyrgyzstan: young teachers and teacher in rural schools), gain income, entitlement, and status, and other groups (in Kyrgyzstan: older teachers and teachers in urban schools) lose in all three regards. In Kyrgyzstan, the re-stratification process led to a revolt of those who lost in the wake of the reform. Within a period of only two years, they ensured that the *stavka*-system was, with a few exceptions, put back in place benefiting those who were on the teaching workforce long enough to know how to manipulate the teaching load system to their own benefit.

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