

# Republic of Moldova



## TEACHERS

SABER Country Report

2014

100098

### Policy Goals

### Status

#### 1. Setting Clear Expectations for Teachers

There are clear expectations for what students should learn and what teachers are supposed to do in Moldova. However, the proportion of school time dedicated to instructional improvement is limited.

Established  
●●●○

#### 2. Attracting the Best into Teaching

Entry requirements, teacher salaries, and career advancement opportunities may not be appealing for talented candidates.

Emerging  
●●○○

#### 3. Preparing Teachers with Useful Training and Experience

Current teacher initial education systems may not be best suited to ensure good quality teachers. Beginning teachers have opportunities to develop practical teaching skills, but only for a limited period of time before they are expected to teach without guidance.

Emerging  
●●○○

#### 4. Matching Teachers' Skills with Students' Needs

There are official systems in place to identify teacher shortages in hard-to-staff schools and by subject areas, but mechanisms to address those shortages do not always work.

Established  
●●●○

#### 5. Leading Teachers with Strong Principals

There are some training programs to support the professional development of principals in the area of school administration, and principals are expected to monitor teacher performance. At the same time, there are no specific training requirements to ensure that principals have the necessary skills to act as instructional leaders and successful managers.

Emerging  
●●○○

#### 6. Monitoring Teaching and Learning

Moldova's systems to assess student learning lack reliable information that may be used to inform policy and teaching. Teacher performance is evaluated every 5 years within a complex process of attestation, but the evaluation system needs reform to be more effective.

Established  
●●●○

#### 7. Supporting Teachers to Improve Instruction

There are opportunities for teacher professional development, but teachers are required to pay for some of their own professional development activities.

Established  
●●●○

#### 8. Motivating Teachers to Perform

There are some mechanisms in place to hold teachers accountable. At the same time, new remuneration programs need to be designed and introduced to attract, develop, and retain teachers and school directors in an efficient and effective manner, while enhancing teaching quality and staff performance.

Emerging  
●●○○



## Overview of SABER-Teachers

There is increasing interest across the globe in attracting, retaining, developing, and motivating great **teachers**. Student achievement has been found to correlate with economic and social progress (Hanushek & Woessmann 2007, 2009; Pritchett & Viarengo 2009; Campante & Glaeser 2009), and teachers are key; recent studies have shown that teacher quality is the main school-based predictor of student achievement and that several consecutive years of outstanding teaching can offset the learning deficits of disadvantaged students (Hanushek & Rivkin 2010; Rivkin et al. 2005; Nye et al. 2004; Rockoff 2004; Park & Hannum 2001; Sanders & Rivers 1996). However, achieving the right teacher policies to ensure that every classroom has a motivated, supported, and competent teacher remains a challenge because evidence on the impacts of many teacher policies remains insufficient and scattered, the impact of many reforms depends on specific design features, and teacher policies can have very different impacts depending on the context and other education policies in place.

**A new tool, SABER-Teachers, aims to help fill this gap by collecting, analyzing, synthesizing, and disseminating comprehensive information on teacher policies in primary and secondary education systems around the world.** SABER-Teachers is a core component of SABER (Systems Approach for Better Education Results), an initiative launched by the Human Development Network of the World Bank. SABER collects information about different education systems' policy domains, analyzes it to identify common challenges and promising solutions, and makes it widely available to inform countries' decisions on where and how to invest in order to improve education quality.

**SABER-Teachers collects data on ten core teacher policy areas to offer a comprehensive descriptive overview of the teacher policies that are in place in each participating education system (see Box 1).** Data are collected in each participating education system by a specialized consultant using a questionnaire that ensures comparability of information across different education systems. Data collection focuses on the rules and regulations governing teacher management systems. This information is compiled in a comparative database where interested stakeholders can access detailed information organized along relevant categories that describe how different education systems manage their

teacher force, as well as copies of supporting documents. The full database is available at the SABER-Teacher website.

### Box 1. Teacher policy areas for data collection

1. Requirements to enter and remain in teaching
2. Initial teacher education
3. Recruitment and employment
4. Teachers' workload and autonomy
5. Professional development
6. Compensation (salary and non-salary benefits)
7. Retirement rules and benefits
8. Monitoring and evaluation of teacher quality
9. Teacher representation and voice
10. School leadership

**To offer informed policy guidance, SABER-Teachers analyzes the information collected to assess the extent to which the teacher policies of an education system are aligned with those policies that the research evidence to date has shown to have a positive effect on student achievement.** SABER-Teachers analyzes the teacher policy data collected to assess each education system's progress in achieving 8 Teacher Policy Goals: 1. Setting clear expectations for teachers; 2. Attracting the best into teaching; 3. Preparing teachers with useful training and experience; 4. Matching teachers' skills with students' needs; 5. Leading teachers with strong principals; 6. Monitoring teaching and learning; 7. Supporting teachers to improve instruction; 8. Motivating teachers to perform.

Figure 1: 8 Teacher Policy Goals



**The 8 Teacher Policy Goals are functions that all high-performing education systems fulfill to a certain extent in order to ensure that every classroom has a motivated, supported, and competent teacher. These**

goals were identified through a review of evidence of research studies on teacher policies, and the analysis of policies of top-performing and rapidly-improving education systems. Three criteria were used to identify them: teacher policy goals had to be (i) linked to student performance through empirical evidence, (ii) a priority for resource allocation, and (iii) actionable, that is, actions governments can take to improve education policy. The 8 Teacher Policy Goals exclude other objectives that countries might want to pursue to increase the effectiveness of their teachers, but on which there is, to date, insufficient empirical evidence to make specific policy recommendations.

**By classifying countries according to their performance on each of the 8 Teacher Policy Goals, SABER-Teachers can help diagnose the key challenges that countries face in ensuring they have effective teachers.** For each policy goal, the SABER-Teachers team identified policy levers (actions that governments can take to reach these goals) and indicators (which measure the extent to which governments are making effective use of these policy levers). Using these policy levers and indicators, SABER-Teachers classifies education systems' performance on each of the 8 Teacher Policy Goals using a four-category scale (latent, emerging, established, and advanced), which describes the extent to which a given education system has in place teacher policies that are known to be related to improved student outcomes (Annex 1). The main objective of this assessment is to identify the strengths and weaknesses of the teacher policies of an education system and pinpoint possible areas for improvement. For a more detailed report on the eight teacher policy goals, policy levers and indicators, as well as the evidence base supporting them, see Vegas *et al.* (2012).

**The main focus of SABER-Teachers is on policy design, rather than on policy implementation (though available evidence on implementation is provided to have a more realistic picture of the situation given the issues with enforcement of the legislation in the country).** SABER-Teachers analyzes the teacher policies formally adopted by education systems. However, policies "on the ground", that is, policies as they are actually implemented, may differ quite substantially from policies as originally designed. In fact, they often do

differ due to the political economy of the reform process, lack of capacity of the organizations in charge of implementing them, or the interaction between these policies and specific contextual factors. Since SABER-Teachers collects limited data on policy implementation, the assessment of teacher policies presented in this report needs to be complemented with detailed information that describes the actual configuration of teacher policies on the ground.

**This report presents results of the application of SABER-Teachers in Moldova.** It describes Moldova's performance in each of the 8 Teacher Policy Goals, alongside comparative information from education systems that have consistently scored high results in international student achievement tests and have participated in SABER-Teachers. Additional detailed descriptive information on Moldova's and other education systems' teacher policies can be found on the SABER-Teachers website. Data presented here are as of July 2014.

## Country Context

The Republic of Moldova, a resource-poor and landlocked country, is undergoing a difficult transition from a planned to a market economy. Although a deep economic collapse marked its first decade of independence<sup>1</sup>, economic growth resumed in 2000 and continued at an average annual rate of 5.9 percent until the 2008 global financial crisis. The economy recovered from the 2008-09 global economic crisis with average annual GDP growth exceeding 5 percent over 2010-2013. As a result, among all its regional partners, Moldova experienced the highest cumulative GDP growth, relative to the pre-crisis year of 2007. At the same time, as a small open economy in which agriculture has a significant role, Moldova's growth performance has been strong but volatile, reflecting vulnerability to climatic and global economic conditions. Officially, the GDP per capita is about USD 2,037<sup>2</sup>, but this estimate does not account for the high share of the informal economy, which, according to estimates, is about 45 percent of the official GDP<sup>3</sup>. Significant structural changes are shaping Moldova's economy and increasing the demand for skills.

In Moldova, primary education begins at the age of six and lasts four years (Annex 2). Secondary schooling covers eight years and is divided into five years of lower secondary (gymnasium) which is compulsory and three years of upper secondary school education (lyceum). After graduating from the gymnasium, children have the

<sup>1</sup> During 1991-1999 GDP declined by almost 60 percent (with the exception of 1997 when Moldova grew by 1.6 percent).

<sup>2</sup> IMF, World Economic Outlook Database, April 2013.

<sup>3</sup> Schneider and others, 2008.

opportunity to continue their education in lyceums or go for vocational education. In 2012, out of the 38,600 graduates of lower secondary education, almost half (46.5 percent) continued studying in lyceums, 21.4 percent in secondary vocational education institutions and 19.2 percent in secondary specialized educational institutions.

Graduates of the gymnasiums can enter trade schools, where the studies last a year, vocational schools (three years) or colleges (four to five years). High school graduates can be enrolled in trade schools or vocational schools for a year and in colleges for two to three years. Advanced technical/vocational education is provided by colleges and consists of short-cycle specialized courses in agriculture, teacher training, arts, mechanics, construction, wood processing, economics and others. The duration of the program depends on the field of study. Vocational schools issue qualification certificates, while colleges award diplomas. Higher education is divided into two cycles: (i) the licentiate lasting three to four years (leading to a Bachelor degree), and (ii) the Master (lasting one to two years).

In 2013/2014 school year, 2,958 educational institutions operated in Moldova, including 1,440 pre-school institutions, 1,374 primary and secondary schools, 67 vocational schools, 45 colleges and 32 higher education institutions. During 2013/2014 academic year, nearly 55,000 teachers were employed in the education sector of the Republic of Moldova, including 32,100 in primary and secondary schools. While the teaching corps is overstaffed, there are hidden shortages of teachers of certain subjects, in particular the science disciplines.

The Government of Moldova's primary objective in education is to improve the quality, efficiency, and relevance of the education system to meet the needs of the labor market and the broader economy. However, the country's demographic and fiscal realities have not made it easy for the government to fulfill this mandate. In 2011, the government embarked on the politically and socially difficult but vital reform of right-sizing the overstaffed and oversized school network so as to adjust to the sharp student-age population decline (by more than 40 percent over the last two decades since 1991). In 2011-2013, the number of school teachers decreased by 15.2 percent due to introduction in 2012 of the needs-

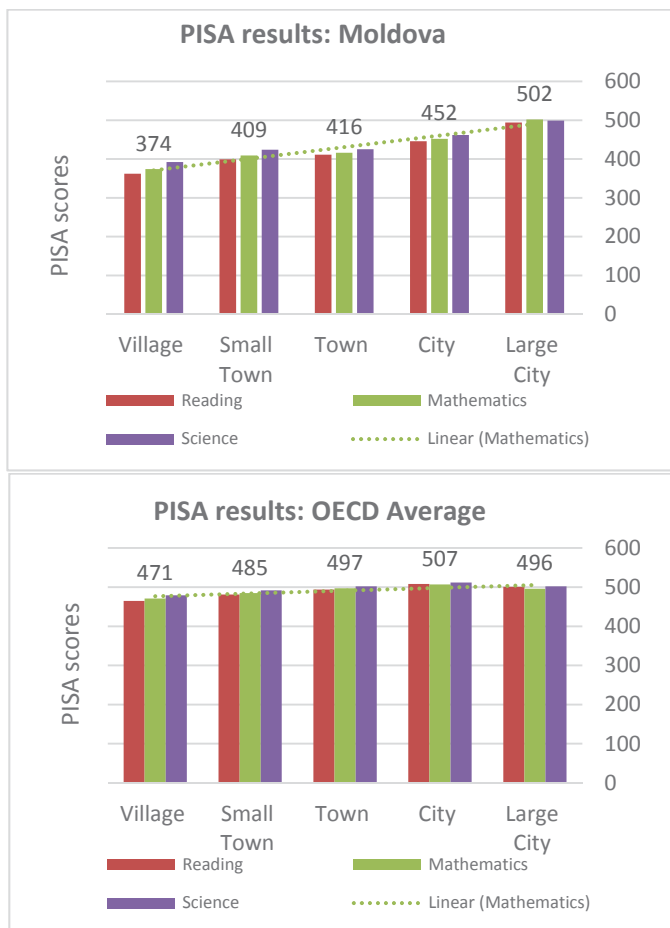
based term contracts with the retired staff (instead of the previous lifetime tenure arrangements) that allowed natural attrition.

Before going into details of the state of affairs in all 8 Teacher Policy Goals, it is important to note that in terms of educational achievements, students from rural schools significantly lag behind their peers studying in urban schools (Figure 2). That is why this study, whenever possible, looks at the 'teachers' situation' in Moldova from urban and rural perspectives. Indeed, the OECD Programme for International Student Assessment (PISA) 2009 Plus results show that performance gap of students from villages (where 56.7 percent of 15-year old children of Moldova are studying) with their urban peers constitutes about one year of schooling. The difference with peers from large cities is much higher—more than three years of schooling.<sup>4</sup> The quality is higher in large cities also when socioeconomic factors are taken into account. Overall, schools in Moldova are more segregated than in the average PISA participant country. Moldova has high social stratification in schools and education is less equitable compared to OECD countries.

<sup>4</sup> 40 score points in PISA represent about a year of schooling.



**Figure 2. Student performance by school location**



Note: World Bank staff calculations based on PISA 2009 Plus individual level data.

## Moldova's Teacher Policy System Results

### Goal 1: Setting clear expectations for teachers

Established●●●○

Setting clear expectations for student and teacher performance is important to guide teachers' daily work and align necessary resources to make sure that teachers can constantly improve instructional practice. In addition, clear expectations can help ensure there is coherence among different key aspects of the teaching profession, such as teacher initial education, professional development, and teacher appraisal.

<sup>5</sup> The curriculum is under revision since it is too heavy, and a greater focus on interdisciplinary approaches with better alignment of curriculum and teaching materials and textbooks is needed. Also, while the curriculum is competence-based, evaluation still largely focuses on students' ability to reproduce material learned, rather than on their competencies.

SABER-Teachers considers two policy levers school systems can use to reach this goal: (1) clear expectations for what students should know and be able to do, and how teachers can help students reach these goals; (2) useful guidance on teachers' use of time to be able to improve instruction at the school level.

**(1) In Moldova, there are expectations for what students are expected to learn and for what teachers are supposed to do.** The Ministry of Education is responsible for setting education goals and controlling the national curriculum. General education goals are stipulated in the Law of Education (Art. 5), and in the Core Curriculum (2010<sup>5</sup>). There are officially stipulated requirements for the minimum education, curriculum, and skills students must attain in every subject by every grade. In every school there are also some optional elective courses that can be chosen by the school from a list recommended by Ministry of Education, and schools have the option of designing elective courses based on local interest and demand.

The tasks teachers are expected to carry out are officially stipulated. Teacher tasks go beyond classroom teaching. Their responsibilities include tasks such as supervising students, grading assessments, and standing in for absent teachers. While there are clearly defined teacher tasks, there is no clear statement in the law as to what percentage of time teachers should allocate to any of these tasks (except for actual teaching time in the classroom)<sup>6</sup>.

Information on school climate in PISA 2009 Plus questionnaires administered to principals provides useful insights on the hindrances to student learning including from "teaching staff" prospective (Table 1). For example, principals report hindrances to student learning "to some extent" or "a lot" due to teachers having low expectations of students; and teachers not meeting individual students' needs.

<sup>6</sup> The stavka system pays teachers by hours of classroom teaching (teachers' base salary) and compensates them additionally for grading student notebooks and other pedagogical and non-pedagogical tasks. One stavka constitutes 18 to 20 hours a week of classroom teaching (for primary and secondary schooling accordingly).

**Table 1. School climate**

Perceptions of the principals: "Perceived Hindrances to Student Learning" (‘To some extent’ and ‘A lot’)	% of students			
	Moldova			OECD average
	Total	Urban	Rural	
Teachers not meeting individual students needs	25%	27%	23%	29%
Teachers low expectations of students	47%	51%	45%	23%
Students not being encouraged to achieve their full potential	29%	25%	31%	24%
Teacher absenteeism	22%	25%	20%	18%
Student absenteeism	70%	78%	65%	48%
Students skipping classes	46%	59%	36%	33%
Poor student-teacher relations	25%	28%	23%	14%
Students lacking respect for teachers	28%	28%	28%	24%
Teachers being too strict with students	24%	24%	23%	12%
Staff resisting change	27%	24%	30%	28%

Note: World Bank staff calculations based on PISA 2009 Plus data.

At the same time, recent assessment showed that measures on strengthening the integrity of the Baccalaureate exams system in 2013-2014 laid the groundwork for a more merit-based way of determining university admission and increased students' and teachers' efforts in the classroom.

PISA 2009 Plus also looked at the issue of setting clear expectations for what students should know and be able to do (see Table 2). The students were asked, for example, whether:

- the teacher explains beforehand what is expected of the students (37 percent of students reported that in most or all of their lessons, they get relevant guidance from teachers; this is 10 percentage points lower than in OECD countries, on average);
- the teacher tells students in advance how their work is going to be judged (54 percent of students get such information in most or all of the lessons).

In terms of the urban/rural differences in Moldova, two questions stand out, namely whether:

- the teacher asks students to explain the meaning of a text; and
- the teacher asks questions that challenge students to get a better understanding of a text.

**Table 2. Setting expectations for students**

Perceptions of students: "In your Romanian language lessons, how often does the following occur?"	% of students			
	Moldova			OECD average
	Total	Urban	Rural	
	Most lessons/All Lessons			
The teacher explains beforehand what is expected of the students	37%	38%	36%	47%
The teacher tells students in advance how their work is going to be judged	54%	54%	55%	57%
The teacher asks students to explain the meaning of a text	53%	60%	49%	52%
The teacher asks questions that challenge students to get a better understanding of a text	59%	63%	55%	58%

Note: World Bank staff calculations based on PISA 2009 Plus data.

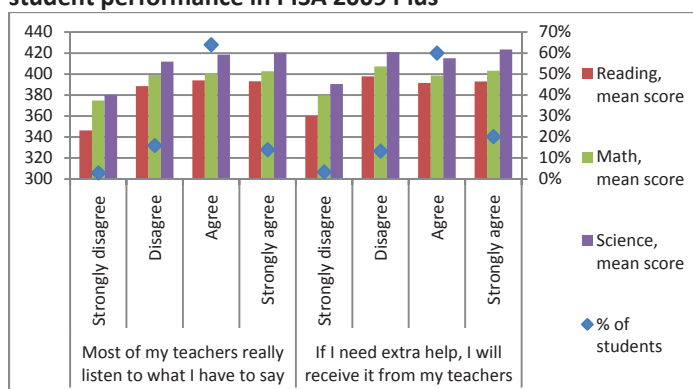
The students were also asked about teachers' help in the course of studies. The results show that the majority of the students in Moldova think that teachers listen to what they say (76 percent agree or strongly agree) and that they will receive extra help from their educators if it is needed (80 percent). Students who thought that their teachers listened performed better in PISA reading, math, and science tests than their peers who strongly disagreed with the relevant statements (Figure 3 and Table 3).

**Table 3. Perceptions of students as to teachers' help**

Perceptions of students: ‘How much do you disagree or agree with each of the following statements about teachers at your school?’	% of students			
	Moldova			OECD average
	Total	Urban	Rural	
	agree / strongly agree			
If I need extra help, I will receive it from my teachers	80%	77%	83%	78%
Most of my teachers really listen to what I have to say	76%	76%	80%	78%

Note: World Bank staff calculations based on PISA 2009 Plus individual level data.

**Figure 3. Students' perceptions of teachers' help and student performance in PISA 2009 Plus**



Note: World Bank staff calculations based on PISA 2009 Plus individual level data.

**(2) Guidance on teachers' use of time could focus more on ensuring that expectations are set in a way as to improve instruction.** Teachers' working time in Moldova is officially defined as the number of hours spent at school (as opposed to merely counting contact time with students). Global experience suggests this definition may be conducive to learning, because it recognizes that teachers normally need to devote some time to non-teaching tasks, such as lesson planning, the analysis of student work, and professional development, as well as administrative tasks.

Non-teaching tasks related to instructional improvement are an officially required part of teachers' basic tasks in Moldova. Such tasks include collaborating on elaboration of school development plans, contributing to the design of the curriculum, and participating in internal school evaluations (Figure 4). However, it is unclear what percentage of time teachers are expected to devote to such tasks.

Successful education systems such as Ontario, Finland, Japan, South Korea, and Singapore devote considerable time at the school level to activities that are related to instructional improvement, such as collaboration among teachers on the analysis of instructional practice as well as mentoring and professional development (Darling Hammond & Rothman 2011, Darling-Hammond 2010, Levin 2008). In addition, these systems tend to devote a smaller share of teachers' time to actual contact time with students than other systems do, and a larger share to teacher collaboration, on-site professional development, and research on the effectiveness of various teaching strategies. Japan, for example, devotes about 40 percent of teachers' working time to these

types of activities, while Ontario currently devotes 30 percent (Darling Hammond & Rothman 2011).

**Figure 4. Teachers' official tasks related to school improvement**

	Mentor peers	Collaborate on school development plan	Design the curriculum	Participate in school internal evaluation
Moldova		✓	✓	✓
Bulgaria				
Macedonia	✓	✓	✓	✓
Kazakhstan	✓	✓	✓	✓
Japan	✓	✓	✓	✓
Shanghai		✓		
Singapore	✓	✓	✓	✓

Source: SABER-Teachers data

In Moldova, the school-based mentoring and supervision practices have been successfully introduced at preschool level but are yet to be established in primary and secondary education.

## Goal 2: Attracting the best into teaching

### Emerging ●●○○

The structure and characteristics of the teaching career can make it more or less attractive for talented individuals to decide to become teachers. Talented people may be more inclined to become teachers if they see that entry requirements are on par with those of well-regarded professions, if compensation and working conditions are adequate, and if there are attractive career opportunities for them to develop as professionals. SABER-Teachers considers four policy levers that school systems can use to reach the goal of attracting the best to the teaching profession: (1) requirements to enter the teaching profession; (2) competitive pay; (3) appealing working conditions; and (4) attractive career opportunities.

**(1) In Moldova, there are various pathways to enter the teaching profession, but formal requirements to become a primary or secondary school teacher in some of those pathways are below those in top-performing international education systems.** Teachers of preschool, primary, and secondary education institutions are hired by school directors. The legislation stipulates that

candidates for a position in the education sector should have the qualification of educator, primary education teacher or school teacher but this requirement is not adhered to in reality.

Initial teacher training is done in:

- secondary/post-secondary specialized education institutions, called colleges, whose graduates are awarded the qualification of educator, primary education teacher or school teacher;
- higher education institutions (at pedagogical faculties), whose graduates are awarded the qualification of teacher of certain school subjects;
- higher education institutions, at non-pedagogical faculties, provided that the students study a psycho-pedagogical module equivalent to 60 transferable academic credits;
- continuous training institutions which provide re-qualification courses to holders of higher education diplomas.

In order to provide the education sector with teaching staff, the government approves each year's admission plan to the pedagogical specializations. According to policy, graduates whose studies are financed by the state budget may be requested to work for three years in the educational institutions designated by the Ministry of Education, but in practice the graduates can choose their workplaces (Table 4).

The statistical data show that the number of graduates from teacher training specializations exceeds by approximately four times the number of vacancies in educational institutions, while the share of graduates assigned by the Ministry of Education to work in educational institutions does not surpass 30 percent of the total number of graduates. As a rule, not more than 50 percent of the assigned graduates come to jobs designated by the Ministry of Education. The bonding of the state-financed graduates by the Ministry of Education is *de jure* mandatory, but *de facto* enforcement of that rule is an issue.

**Table 4. Teacher training and recruitment**

	2010	2011	2012	2013
Graduates of teacher training specializations	3887	4527	4326	3642
The demand for the teaching staff	1156	1005	733	1052
Assigned workplace	794	841	733	781
Came to the workplace	355	381	671	453

Source: Ministry of Education, 2014

Lifelong teacher training is provided within the systems of both formal and non-formal education, by secondary specialized and higher education institutions, as well as by a number of non-governmental organizations whose curricula are authorized by the Ministry of Education.

In summary, pre-school and primary teachers' qualifications are obtained in pedagogical colleges, which are vocational institutions, and in universities. Secondary education teachers in Moldova receive their initial teacher training in courses taken after 12 years of schooling. Thus, formal requirements to become a primary or secondary school teacher are below those in top-performing international education systems. Teachers in Moldova, before being appointed to a teaching position, are not required to have any minimum amount of practical professional experience (except the practical course within the pre-service program); nor are they required to pass an interview stage assessment. There are written exams as part of individual course programs, and there is one officially mandated final written exam in pedagogical programs (within the pre-service program).

Both the concurrent and alternative models for teacher training exist. Concurrent programs, which teach subject knowledge and pedagogic skills relatively simultaneously, are one pathway to enter the teaching profession. To qualify as a teacher, a candidate must undergo a course of study that includes: 270 hours pedagogy, 270 hours psychology, 300 hours teaching methods, 60 hours professional ethics and 900 hours of practical professional experience. The Education Code (article 132) also allows for an alternative program as well: anyone with a bachelor's degree can take a psycho-pedagogical course and become a teacher.

Virtually all high-performing countries require that teachers have an educational level equivalent to ISCED 5A (a bachelor's degree) and offer multiple pathways to enter the teaching profession, either through consecutive programs or alternative programs. Consecutive programs allow individuals who have a Bachelor's degree in a discipline other than education to gain a teaching certificate after one semester of study at university. Alternative programs are designed to meet the needs of a specific country context. According to the National Bureau of Statistics, the proportion of Moldovan teachers who have higher education is quite high: 88.2 percent in the 2013/2014 school year. At the



same time, almost a third of teachers do not have additional pedagogical qualifications obtained through a national attestation process.

Of course, the causality may flow both ways: more qualified teachers may help their students to better results, but more qualified teachers may also be assigned to schools with better environments and stronger students, especially given the important de facto role of teachers choosing their placement. Nevertheless, global experience suggests the importance of developing the knowledge and professionalism of the teaching force as a long-run instrument for strengthening quality.

**(2) Teacher pay may not be appealing for talented candidates.** The minimum teacher salary is 1,800 MDL<sup>7</sup> (preschool education teachers after pedagogical college), or 2,200 MDL (secondary education teacher with university diploma) per month. For comparison, the starting salary of a public servant with a comparable degree is approximately 2,174 MDL. In the private sector, the minimum salary for a similarly skilled qualified individual starts at about 2,700 MDL per month. Teacher pay varies depending on work experience, teaching rank, type of school.

Based on acceptance rates, the teaching profession is not very prestigious in the Republic of Moldova (Table 5). The students admitted to pedagogical fields of study usually have low lyceum graduation scores.

**Table 5. Enrolment in pedagogical specializations, 2013**

Field of study	Applications*	Ratio of applications to admissions	Minimum score required for admission	
			Budget-financed	Privately financed
Teacher education and training	3153	2.1	5.15	5.05
Sciences of education	1079	1.7	5.68	5.37
Economic sciences	7782	4.2	5.88	5.44
Law	3708	8.2	7.83	5.82
Medicine	1146	2.6	8.54	8.27

\* Note: One candidate could apply for several specializations  
Source: Ministry of Education, 2013

<sup>7</sup> Data as of July 2014.

**(3) Working conditions may be appealing enough to attract talented individuals to the teaching profession.** Working conditions may play an important role in the decision to become a teacher. Talented candidates who have opportunities in other professions may be discouraged from choosing to become teachers if working conditions are poor.

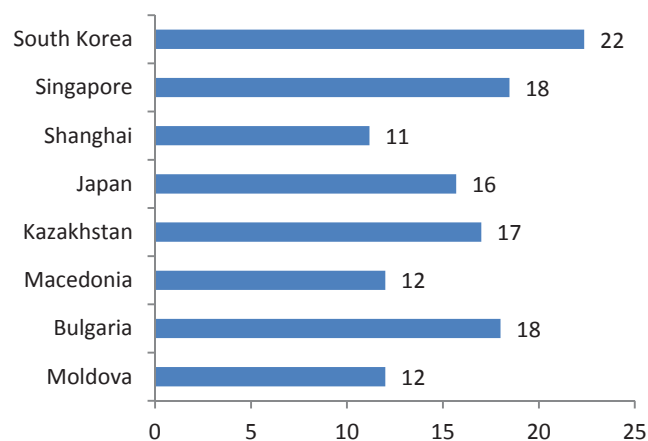
Two key measures of working conditions indicate mixed results in Moldova. In the area of the physical work environment, the average school was built in 1971, and many facilities require rehabilitation and investment. However, student-teacher ratios, which are another indicator of teacher working conditions, are similar to or smaller than those in high-performing international education systems. The primary school student-teacher ratio is 12.0:1, the secondary school ratio is 10.9:1 and the lyceum ratio is 12.6:1. The overall student-teacher ratio is 11.9:1 (Table 6 and Figure 5).

**Table 6. Student-teacher ratios in Moldova**

Type of educational institution	Total	Urban	Rural
Primary school	12.0	14.3	9.3
Gymnasium	10.9	11.7	10.8
Lyceum	12.6	12.8	12.4
<b>Overall</b>	<b>11.9</b>	<b>12.7</b>	<b>11.4</b>

Source: Moldova Education Management Information System (EMIS) data, 2013. Note: Number of students per teacher is measured using full-time equivalent teachers.

**Figure 5. Student-teacher ratio, primary school**



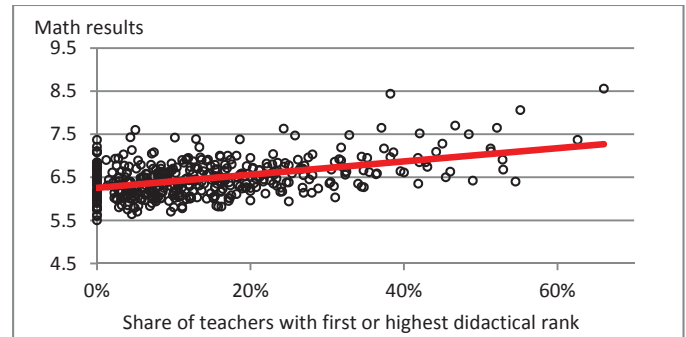
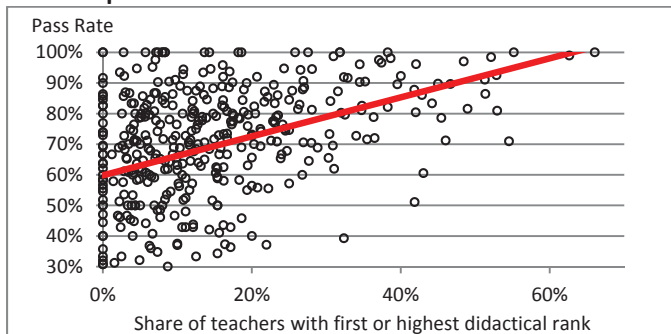
Source: SABER-Teachers data

**(4) Opportunities for career advancement may be appealing enough to help attract talented individuals to the teaching profession.** Teachers in most education systems are offered opportunities for promotion to principal positions at some point in their careers. In addition to these “vertical” promotions, most high-performing education systems offer teachers the possibility of “horizontal” promotions to academic positions that allow them to grow professionally as teachers and yet remain closely connected to instruction, instead of moving up to managerial positions (OECD 2012, Darling-Hammond 2010).

Policies in Moldova offer various opportunities for career advancement to teachers. Teachers have the option of applying to either school administration posts (such as school principals) or academic leadership positions. Policies require that promotion opportunities are linked to teacher performance. This link between promotion decisions and performance is another way of improving career opportunities in the teaching profession for attractive candidates.

In order to encourage the teaching staff to continue honing their skills, three teaching ranks have been instituted in the Republic of Moldova. The holders of the higher ranks earn salary supplements. The teaching ranks are to be awarded based on performance, on the results of continuous training of the candidate and on the outcomes of his/her methodological and teaching activities. As expected, teacher qualifications, particularly at the first or highest rank, have a positive correlation with student performance (Figure 6).

**Figure 6. Proportion of qualified staff versus student pass rate and performance in Baccalaureate exams**



Note: EMIS, 2013.

However, as there are no standards in place yet, the assessment of performance is rather weak. The attestation process is considered quite bureaucratic by teachers and has very few features that focus on observation of daily teaching practices.

The second teaching rank is awarded at the subnational level (*raion*), while the first and highest teaching ranks are awarded at the central level by the Ministry of Education. The teaching rank has to be confirmed (renewed) every five years. Of the total number of candidates who were subject to certification in 2013, 28 percent were able to obtain a higher teaching rank; the share was 23 percent in rural areas, versus 34 percent in urban areas (Table 7).

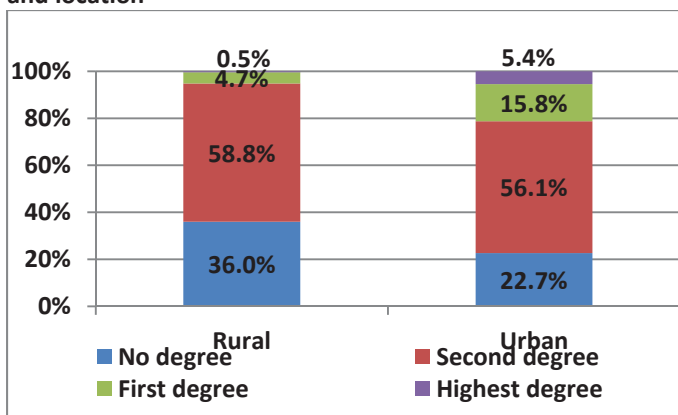
**Table 7. Teachers with awarded or confirmed teaching ranks, 2013**

	Confirmation of the teaching rank		Award of a higher teaching rank	
	No.	%	No.	%
Rural	2,549	77%	7,75	23%
Urban	2,119	66%	1,074	34%
<b>Total</b>	<b>4,668</b>	<b>72%</b>	<b>1,849</b>	<b>28%</b>

Source: Ministry of Education, 2014

Holding a teaching rank is not mandatory. About a third of staff (31 percent) do not hold any rank, 58 percent of teachers hold the second rank awarded at the subnational level, 9 percent hold first rank, and 2 percent hold the highest rank. There are significant discrepancies in holders of the teaching ranks in rural and urban areas (Figure 7).

**Figure 7. Distribution of the teaching staff by teaching rank and location**



Source: Moldova EMIS, 2013

### Goal 3: Preparing teachers with useful training and experience

#### Emerging ●●○○

Equipping teachers with the skills they need to succeed in the classroom is crucial. Teachers need subject matter and pedagogic knowledge, as well as classroom management skills and lots of teaching practice in order to be successful in the classroom. In addition, preparation puts all teachers on an equal footing, giving them a common framework to improve their practice.

SABER-Teachers considers two policy levers that school systems can use to reach this goal: (1) minimum standards for pre-service training programs; (2) required classroom experience for all teachers.

#### (1) Teacher initial education may not be providing prospective teachers with the necessary practical knowledge and skills to be successful in the classroom.

Virtually all high-performing countries require that teachers have an educational level equivalent to ISCED 5A (a bachelor's degree), and some systems, such as Finland, require, in addition, a research-based master's degree (OECD 2011). As mentioned earlier, formal requirements to become a primary or secondary school teacher in Moldova are below those of top-performing international education systems.

**(2) Practical classroom experience requirements for teachers-in-training could be strengthened, particularly for secondary school teachers.** Practical experience is an important factor in teaching quality. The more teachers

try out their pedagogical theories, subject-matter knowledge, and classroom management skills, the better prepared they will be for their job. Most high-performing systems require their teacher entrants to have a considerable amount of classroom experience before becoming independent teachers (Darling-Hammond 2010, Ingersoll 2007). In Moldova, teachers-in-training must acquire three months of classroom experience within their university practical activities (900 hours of practical activities for primary and secondary level of education); this is less practical experience than required by most high-performing systems.

After their teachers-in-training become teachers, high-performing systems have programs aimed at facilitating their transition into the profession—programs that include mentoring and other support—that usually last longer than seven months for both primary and secondary school teachers. These programs have the potential to make teachers more effective in the classroom and reduce teacher turnover. In Moldova, by contrast, novice teachers were not required to participate in induction programs or mentoring. The new Education Code envisages the provision of mentoring assistance in the first three years of activity.

**Figure 8. Required classroom experience, primary school teachers**

	3 months or less	12 months or less	12-24 months	More than 24 months
Moldova	✓			
Bulgaria	✓			
Macedonia		✓		
Kazakhstan		✓		
Japan				✓
Shanghai		✓		
Singapore			✓	
South Korea	✓			

Source: SABER-Teachers data

## Goal 4: Matching teachers' skills with students' needs

### Established ●●●○

Ensuring that teachers work in schools where their skills are most needed is important for equity and efficiency. First, it is a way of ensuring teachers are distributed as efficiently as possible, making sure that there are no shortages of qualified teachers at any given grade, education level, or subject. Second, it is a means of ensuring all students in a school system have an equal opportunity to learn. Without purposeful allocation systems, it is likely that teachers will gravitate towards schools serving better-off students or those located in more desirable areas, deepening inequalities in the system.

SABER-Teachers considers two policy levers that school systems can use to reach this goal: (1) incentives for teachers to work in hard-to-staff schools; and (2) incentives for teachers to teach in critical shortage areas.

**(1) There are mechanisms to identify teacher shortages in hard-to-staff schools.** Attracting effective teachers to work in hard-to-staff schools (schools that are in disadvantaged locations or serve underprivileged populations) is a challenge for many countries, and it often requires a specific set of incentives, such as monetary bonuses or opportunities for promotion. (See Figure 10 for some examples.) In Moldova, teachers who work in hard-to-staff schools are offered housing support. There is also a one-time financial incentive of 30,000 MDL for beginner teachers (paid gradually during the first three years) who agree to work in certain rural areas. Ministry of Education data show that all young teachers who came to work in rural schools have received this incentive. The new Education Code envisages the provision of a one-time financial incentive for young teachers coming to work according to the repartition in rural and raion schools, and in some hard to staff urban schools. Also, the young teachers from rural and raion schools will benefit in the first three years of support for utilities payments.

**(2) Moldova has a mechanism to systematically identify critical shortage areas, but it is not always able to meet the identified needs.** Critical shortage subjects—those for which there is a shortage of teachers to meet student needs—are present in many education systems, and

systems often offer monetary and non-monetary incentives (such as bonuses and subsidized education/scholarships) for teachers to teach these subjects. In Moldova, identification of a need has not always led to success in meeting it. In the 2014/2015 school year, for example, there was substantial demand for math or chemistry teachers, but the Ministry's incentives did not successfully mobilize sufficient teachers in these subject areas (Table 8).

**Table 8. The demand for teaching staff by selected subjects, 2014/2015 school year**

Subjects	Demand	Assigned for work
Preschool pedagogy	191	77
Mathematics	125	0
Physics	56	0
Chemistry	25	0
History	25	15
Speech Therapy	10	0
<b>Total for various subjects</b>	<b>1090</b>	<b>600</b>

Source: MoE data, 2014.

Table 9 shows principals' responses to PISA 2009 Plus questions related to staffing shortages and demonstrating perceived hindrances to schools' capacity to provide instruction. Overall, 15 percent of Moldovan students study in schools that report lacking qualified teachers in math ('to some extent' or 'a lot'), 12 percent lack teachers for science and 10 percent lack Romanian language teachers (though the situation, according to survey of principals, is better than in OECD countries). The shortages are higher in rural areas, as is typically the case in many countries.

**Table 9. Staffing: shortage of qualified teachers**

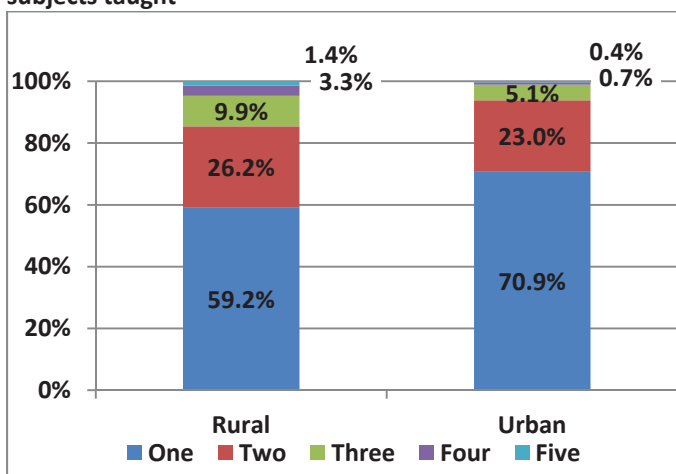
Perceptions of the principals: "Perceived Hindrances to Schools Capacity to Provide Instruction" (To some extent/ A lot)	% of students			
	Moldova			OECD average
	Total	Urban	Rural	
Lack of qualified teachers of Romanian language	10%	8%	11%	13%
Lack of qualified math teachers	15%	13%	16%	18%
Lack of qualified science teachers	12%	9%	14%	18%
Lack of qualified teachers of other subjects	22%	14%	29%	23%

Source: World Bank staff calculations based on PISA 2009 Plus individual level data.



This results in a situation when teachers deliver classes in three, four, or even five subjects, particularly in rural areas (often without relevant qualifications). Indeed, as mentioned above, training in dual pedagogical specializations, for example, mathematics and physics, Romanian and English languages, is allowed in higher education. But despite periodical attempts to ensure multidisciplinary teacher training, relevant policies have not been developed yet. Nevertheless, 4,029 teachers in Moldova (11.2 percent) teach between 3 to 5 subjects (14.6 percent in rural and 6.1 percent in urban areas, as shown in Figure 9). Also, specialization in one or two school subjects usually ensures more in-depth knowledge of the discipline by the teacher.

**Figure 9. Distribution of the teaching staff by number of subjects taught**



Source: EMIS, 2013

**Figure 10. Incentives for teachers to teach in hard-to-staff schools**

	Promotion	Higher basic salary in hard-to-staff schools	Monetary	Subsidized education	Housing support
Moldova			✓		✓
Bulgaria		✓			
Macedonia			✓		
Kazakhstan	✓		✓		✓
Japan		✓	✓		✓
Shanghai	✓		✓	✓	
Singapore					
South Korea	✓				✓

Source: SABER-Teachers data

Note: Singapore has no specific incentives to attract qualified teachers to hard-to-staff schools, but it does have a centrally-managed teacher deployment system that ensures an equitable and efficient distribution of teachers.

## Goal 5: Leading teachers with strong principals

### Emerging ●●○○

The quality of school heads is an important predictor of student learning. Capable principals can act as instructional leaders, providing direction and support to the improvement of instructional practice at the school level. In addition, capable principals can help attract and retain competent teachers.

SABER-Teachers considers two policy levers that school systems can use to reach this goal: (1) education system's investment in developing qualified school leaders; (2) decision-making authority for school principals to support and improve instructional practice.

**(1) In Moldova, there are some training programs and in-service programs to support the professional development of principals, but there are no minimum requirements to become a principal, beyond being an experienced teacher.** There are also different in-service manager training modules that are focused on strengthening management and leadership skills. Research from high-performing education systems suggests principals can develop leadership and management skills also through supported work experience or through specific training courses. High-performing systems such as Japan, South Korea, Shanghai, and Singapore require the participation of applicants to principal positions in specific coursework and/or a specialized internship or mentoring program aimed at developing essential leadership skills (OECD, 2012; Darling-Hammond 2010).

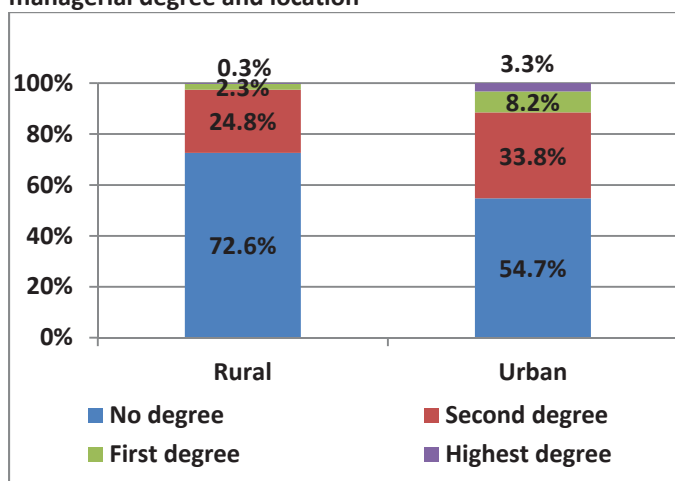
To become a school principal in Moldova, an applicant must have a Bachelor's degree and at least five years of teaching experience. School principals' salaries depend on their didactic and managerial degrees, work experience, type/size of school in which they teach, and the number of students, but not their performance. National Baccalaureate exams results demonstrate that school principal qualification is positively correlated with the performance and success rate of students.

School principals are encouraged, but not required, to attend professional development courses and to obtain managerial degrees. Principals without managerial degrees can remain in post without participating in

professional development. Such participation is mandatory only for principals who want to confirm or obtain a higher managerial degree. In such cases, the principals are required to accumulate a certain number of professional credits. These credits can be obtained by following training courses, drafting institutional development strategies, planning and proper management of the educational process and financial resources, and developing and implementing projects.

The present system of recruitment and promotion of the managerial staff does not incentivize upgrades of the level of qualification. Principals' salary supplements depend more on the number of students in institutions that they lead than the managerial grades that they have. Thus, in the case of teachers, for didactical ranks the salaries are increased by 30 percent (second didactical rank), 40 percent (first didactical rank), and 50 percent (highest didactical rank), whereas for managerial ranks the increases are lower, at 5, 10, and 20 percent respectively. In part as a result, the share of principals with the first and the highest managerial ranks does not exceed 4 percent, with significant differences between rural and urban areas in terms of the level of qualification of the managerial staff (Figure 11).

**Figure 11. Distribution of the management staff by managerial degree and location**



Source: EMIS, 2013

The new Code of Education envisages election of principals based on a competitive recruitment process and their appointment for a five-year period of time. The new methodology for election and appointment of the managers of educational institutions will be focused on enhancing the educational management and increasing

their role in selection, promotion and guidance of the teaching staff.

**(2) Principals in Moldova are officially required to monitor teacher performance, but they are not expected to provide support and guidance to teachers for the improvement of instructional practice.** Once education systems get talented candidates to become principals, they need to structure their time to focus on improving instruction (OECD 2012, Barber & Mushed 2007). High-performing education systems such as Finland, Ontario, and Singapore think of their principals as instructional leaders. Principals are expected to be knowledgeable in teaching and curriculum matters, as well as to provide guidance and support to teachers. They evaluate teachers, provide feedback, assess the school's needs for professional development, and direct instructional resources where they are most needed (Darling-Hammond & Rothman 2011).

In Moldova, principals are expected to hire and dismiss teachers, assess teachers' performance, evaluate the overall school's performance, manage the schools budget, represent the school, respond to subnational and local authorities, and assume some teaching duties. Many of the tasks that are expected from principals in Moldova are aligned with instructional leadership tasks that research suggests are associated with high student performance, though their administrative load may be especially burdensome and may detract from their ability to manage teachers effectively (Table 10).

**Figure 12. Mechanisms to support the development of principals' leadership skills**

	Courses or other training requirements	Mentoring or internship program
Moldova	✓	
Bulgaria		
Macedonia	✓	
Kazakhstan		✓
Japan		✓
Shanghai	✓	
Singapore	✓	✓
South Korea	✓	

Source: SABER-Teachers data

**Table 10. Management of the school by principals**

Perceptions of the principals: “the frequency of the following activities and behaviors in your school during the last school year” (Quite often/Very often)	% of students			
	Moldova			OECD average
	Total	Urban	Rural	
I make sure that the professional development activities of teachers are in accordance with the teaching goals of the school	97%	97%	96%	87%
I ensure that teachers work according to the school’s educational goals	98%	97%	98%	92%
I observe instruction in	90%	96%	86%	50%
I use student performance results to develop the school’s educational goals	95%	98%	93%	75%
I give teachers suggestions as to how they can improve their teaching	95%	98%	92%	69%
I monitor students’ work	95%	95%	95%	66%
When a teacher has problems in his/her classroom, I take the initiative to discuss matters	89%	93%	86%	85%
I inform teachers about possibilities for updating their knowledge and skills	96%	98%	94%	88%
I check to see whether classroom activities are in keeping with our educational goals	98%	99%	97%	71%
When a teacher brings up a classroom problem, we solve the problem together	94%	94%	94%	93%
I pay attention to disruptive behavior in classrooms	92%	94%	91%	89%
I take over lessons from teachers who are unexpectedly absent	49%	51%	48%	29%

Note: World Bank staff calculations based on PISA 2009 Plus individual level data.

## Goal 6: Monitoring teaching and learning

### Established ●●●○

Assessing how well teachers are teaching and whether students are learning or not is essential to devise strategies for improving teaching and learning. First, identifying low-performing teachers and students is critical for education systems to be able to provide struggling classrooms with adequate support to improve. Second, teacher and student evaluation also helps

identify good practices which can be shared across the system to improve school performance.

SABER-Teachers considers three policy levers that school systems can use to reach this goal: (1) availability of data on student achievement in order to inform teaching and policy; (2) adequate systems to monitor teacher performance; (3) multiple mechanisms to evaluate teacher performance.

**(1) Moldova’s systems to assess student learning lack reliable information that may be used to inform policy and teaching.** All high-performing education systems ensure that there are enough student data to inform teaching and policy, but they do so in very different ways. Regardless of the mechanism they decide to follow, high-performing systems ensure that three main functions are fulfilled: (1) There is a system to collect relevant and complete data on student achievement regularly; (2) There is a mechanism for public authorities to have access to these data so that they can use it to inform policy; and (3) There is a mechanism to feed these data and relevant analyses back to the school level, so that teachers can use it to inform the improvement of instructional practice.

In Moldova, three types of national evaluations are used for the assessment of school performance:

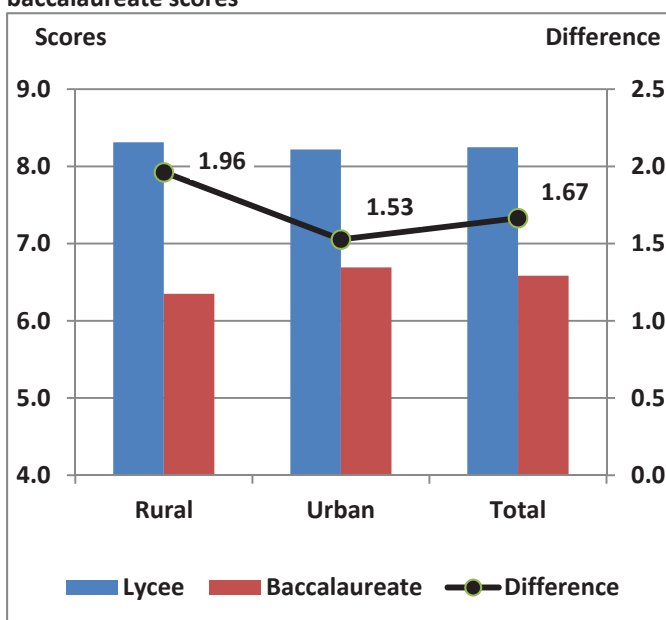
- final examinations in primary education, which are conducted based on the tests developed by the Agency for Quality Assurance of Ministry of Education (AQA) and are administered by the educational institutions;
- gymnasium graduation examinations, which are conducted based on the tests developed by the AQA and are administered by the educational institutions;
- Baccalaureate examinations, which are developed and administered by the Agency for Quality Assurance of the Ministry of Education.

Though data from these national examinations are made available to inform policy, the primary and gymnasium exams are conducted by schools and lack standardization. The difference between final scores of the lyceum graduates assigned by teachers in their schools for the three lyceum years and the ones at Baccalaureate examinations are high (Figure 13). The Baccalaureate examinations, recently reformed, are reliable. At the same time, the Baccalaureate exams

taken upon completion of the upper secondary education are not enough, as they are not designed to measure quality improvements, but rather to provide a gateway to university admission.

Over the last decade, Moldova participated in three different international assessments: Trends in International Mathematics and Science Study (TIMSS) in 2003, Progress in International Reading Literacy Study (PIRLS) in 2006, and Programme for International Student Assessment (PISA) in 2009 Plus. However, none of those have been applied continuously, which would allow tracking of trends in education quality in the country.

**Figure 13. Average scores by lyceum grades and baccalaureate scores**



Source: Quality Assurance Agency of the Ministry of Education, 2014

It is important to note, however, that Moldovan schools most frequently use the following forms of assessment: student coursework, homework and projects, teacher-developed tests and subjective ratings (Table 11). Student portfolios and standardized tests are also regularly used.

At the same time, the evaluations developed by the AQA and the classroom assessments by teachers are still knowledge-based rather than focused on competencies. To ensure that evaluations and classroom-based formative assessments are in line with the new curriculum, the Ministry will need to build capacity of QAA practitioners and teachers (it is also necessary to

reform teacher training, qualifications upgrades, and practice).

**Table 11. Assessment methods in schools**

How often are students assessed using the following methods?	% of students					
	Moldova			OECD average		
	never	1-5 times a year	at least once a year	never	1-5 times a year	at least once a year
Standardized tests	4%	82%	13%	24%	68%	8%
Teacher-developed tests	-	26%	74%	3%	37%	61%
Teachers' judgmental ratings	1%	33%	63%	7%	35%	58%
Student portfolios	4%	53%	42%	24%	55%	20%
Student coursework/projects/homework	-	11%	89%	1%	28%	70%
Moldova		Urban		Rural		
Standardized tests	6%	79%	13%	2%	84%	12%
Teacher-developed tests	-	32%	68%	-	21%	78%
Teachers' subjective ratings	0%	32%	63%	1%	34%	62%
Student portfolios	1%	60%	39%	6%	48%	45%
Student coursework/projects/homework	-	18%	82%	-	6%	94%

Note: World Bank staff calculations based on PISA 2009 Plus individual level data.

Schools, according to the principals (Table 12), use assessments for various purposes: to inform parents about their child's progress or to monitor the school's progress from year to year (98 percent of Moldovan students study in such schools); to identify aspects of instruction or the curriculum that could be improved (94 percent); to make judgments about teachers' effectiveness or to make decisions about students' retention or promotion (93 percent); to compare the school to local or national performance (86 percent); to compare the school with other schools (77 percent); and to group students for instructional purposes (43 percent).



**Table 12. Use of assessments**

Perceptions of the principals: “In your school, are assessments of students in <national modal grade for 15-year-olds> used for any of the following purposes”	% of students			
	Moldova			OECD average
	Total	Urban	Rural	
	Yes (used)			
To inform parents about their child’s progress	98%	99%	97%	98%
To make decisions about students’ retention or promotion	94%	94%	94%	77%
To group students for instructional purposes	43%	43%	43%	50%
To compare the school to <district or national> performance	86%	84%	89%	53%
To monitor the school’s progress from year to year	98%	98%	98%	76%
To make judgments about teachers’ effectiveness	94%	92%	95%	47%
To identify aspects of instruction or the curriculum that could be improved	95%	96%	94%	77%
To compare the school with other schools	77%	77%	77%	45%

Note: World Bank staff calculations based on PISA 2009 Plus data.

**(2) There is a system in place to evaluate teacher performance.** Teachers undergo external evaluations on a regular basis, so there is a formal evaluation system. However, these external evaluations happen only once every five years, and there are no formal internal evaluations. Establishing a list of performance standards for beginning teachers through to "master" teachers could help to guide various aspects of the career path, including initial teacher training and teacher appraisal for promotions. These promotions would include both horizontal promotions (to acknowledge teachers and allow them to stay with the senior teaching practice) and vertical promotions to other senior positions, which might include managerial or other positions of leadership. The new Education Code envisages revising both internal and external evaluation systems.

**(3) Policies stipulate a variety of mechanisms to measure teacher performance despite a lack of supportive structures.** While policies require student performance and teacher evaluations be used to provide a more complete understanding of teacher performance, without school-level student achievement data and principals trained in teacher pedagogy and evaluation

(see above), the effectiveness of these mechanisms may be limited. Research suggests that no single method of evaluating teacher performance is fail-safe. Most high-performing systems conduct teacher evaluations using a multiplicity of mechanisms of data collection and varied criteria for assessment. Ideally, an evaluation system includes a comprehensive teacher evaluation framework that combines student results, teachers' portfolios, classroom observations and feedback from students/parents. International experience and research on the topic both suggest that none of these approaches taken separately can produce a balanced and objective evaluation of teacher performance.

Research has shown that evaluations combining multiple methods and sources of information (such as student academic achievement, classroom observations and student survey results) might be more effective. In Moldova, as in many top-performing education systems, explicit criteria are used for assessing teacher performance. Figure 14 and Table 13 highlight some of these criteria.

**Table 13. Methods used to monitor teacher's practice**

Perceptions of the principals: "During the last year, have any of the following methods been used to monitor the practice of Romanian language teachers at your school?"	% of students			
	Moldova			OECD average
	Total	Urban	Rural	
	Yes (used)			
Tests or assessments of student achievement	99%	100%	99%	58%
Teacher peer review (of lesson plans, assessment instruments, lessons)	94%	98%	92%	56%
Principal or senior staff observations of lessons	99%	100%	99%	68%
Observation of classes by inspectors or other persons external to the school	77%	77%	77%	28%

Note: World Bank staff calculations based on PISA 2009 Plus data.

**Figure 14. Criteria to evaluate teacher performance**

	Subject matter knowledge	Teaching methods	Student assessment methods	Students' academic achievement
Moldova	✓	✓	✓	✓
Bulgaria		✓		
Macedonia		✓	✓	✓
Kazakhstan	✓	✓	✓	✓
Japan	✓	✓	✓	
Shanghai		✓	✓	✓
Singapore	✓	✓	✓	
South Korea	✓	✓	✓	

Source: SABER-Teachers data

## Goal 7: Supporting teachers to improve instruction

### Established ●●●○

Support systems are necessary to help improve instruction at the school level. In order to constantly improve instructional practice, teachers and schools need to be able to analyze specific challenges they face in classroom teaching, have access to information on best practices to address these challenges, and receive specific external support tailored to their needs.

SABER-Teachers considers three policy levers that school systems can use to reach this goal: (1) availability of opportunities for teacher professional development; (2) teacher professional development activities that are collaborative and focused on instructional improvement; (3) ensuring teacher professional development is assigned based on perceived needs.

**(1) Teachers are required to participate in professional development.** Teacher performance is evaluated once in five years through the so-called attestation process. Teachers who aspire to confirm or obtain a higher didactic rank are required to participate in professional development activities and accumulate at least 50 (for second rank), 60 (first rank), or 80 (higher rank) professional credits. The credits can be accumulated by mandatory professional internship courses, workshops, trainings at the national level, (150 hours of direct contact and 450 hours of classroom and individual

activity), trainings at the local level (75 hours of classroom and 225 hours of individual work), through didactic scientific-methodological activities, community activities, mentoring, and other activities. However, for the individual work, no formal proof of completion is required. And, in fact, teachers with higher rank need less training than the ones with no didactic rank. Teacher professional development is provided but is not always free of charge. Teachers bear some of the costs, when the school budget is insufficient to cover it.

**(2) Teacher professional development includes activities that have been found by research to be associated with instructional improvement.** Research suggests that effective teacher professional development is collaborative and provides opportunities for the in-school analysis of instructional practice. As mentioned earlier, high-performing education systems like Japan and Ontario devote as much as 30 per cent of school time to professional development and instructional improvement activities. Some of these include observation visits to other schools, participation in teacher or school networks as well as opportunities to engage in research, mentoring or coaching.

**(3) Teacher professional development is formally assigned by principals based on perceived needs.** Assigning professional development to teachers when they score low on performance evaluations is one way of potentially improving instructional practice. Teacher professional development can be targeted to meet the needs of specific teachers.

**Figure 15. Types of professional development**

	Observation visits	Teacher networks	School networks	Research	Mentoring/coaching
Moldova	✓	✓	✓	✓	✓
Bulgaria	✓	✓	✓	✓	✓
Macedonia	✓	✓	✓	✓	✓
Kazakhstan	✓	✓	✓	✓	
Japan	✓	✓	✓	✓	✓
Shanghai	✓	✓	✓		✓
Singapore	✓	✓	✓	✓	✓

Source: SABER-Teachers data

## Goal 8: Motivating teachers to perform

### Emerging ●●○○

Adequate mechanisms to motivate teachers are a way for school systems to signal their seriousness in achieving education goals, make the teaching career attractive to competent individuals, and reward good performance while ensuring accountability.

SABER-Teachers considers three policy levers that school systems can use to reach this goal: (1) linking career opportunities to teachers' performance; (2) having mechanisms to hold teachers accountable; (3) linking teacher compensation to performance.

**(1) In Moldova, promotion opportunities have a limited link to job performance.** Though official policy stipulates that performance on the job factors into whether teachers receive open-ended appointments, there is no requirement for a probation period before teachers receive an open-ended appointment. Usually, teachers are hired with open-ended appointments, especially in subject areas where there is an undersupply of teachers (like math or chemistry) and in rural areas.

Figure 16. Incentives for high performance

	Individual monetary bonus	School-level bonus
Moldova		
Bulgaria	✓	
Macedonia	✓	
Kazakhstan		
Japan		
Shanghai	✓	✓
Singapore	✓	
South Korea	✓	✓

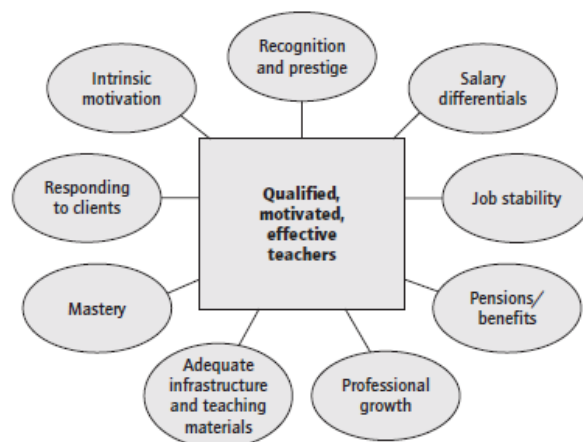
Source: SABER-Teachers data

**(2) There are mechanisms in place to hold teachers accountable.** Requiring teachers to meet some standards to remain in the teaching profession can facilitate the removal of ineffective teachers. In Moldova, teacher performance is evaluated every five years, and there are official mechanisms to address cases of misconduct, child abuse, absenteeism and poor performance. However, there are no teacher

professional standards or manager professional standards in place yet.

**(3) Teacher compensation is barely linked to teacher performance.** While the base salary varies with teacher workload, relevant experience, and professional qualification, student assessments are not used to influence compensation. The teacher attestation system (promotion ranks) is taken into account in order to establish salary differentials, as described above (see Goal 5). Bonuses can be an effective tool for improving teacher motivation, assuming that there is a valid and well-accepted system of performance evaluation in place. Individuals are attracted into the teaching profession for a wide range of reasons and it is important to reward high-performing teachers with both performance bonuses and non-monetary incentives such as awards, professional development opportunities and funding for school-based research that serve as an inducement for teachers to improve performance (Figure 17).

Figure 17. Teacher Performance Incentives



Source: Bruns, B., Filmer D., Patrinos H. A. 2011.

## Policy Options

This SABER country report has offered a snapshot of Moldova's key teacher policies and how they compare with those of top global performers in education, as well as with regional countries. This section suggests some policy options for further improvement of the teacher policy framework. These recommended measures in all

eight policy goals are derived from the above analysis and interviews conducted in Moldova.

### Goal 1: Setting clear expectations for teachers

There are clear expectations for what students should learn and what teachers are supposed to do in Moldova. However, teachers do not set clear expectations of students, and their pedagogical effort for teaching and regularly checking for student learning is an issue. In addition, the proportion of school time dedicated to instructional improvement is limited. To support progress, it is important to know how much time teachers devote to each type of task (such as lesson planning, analysis of student work, professional development, and administrative tasks), as well as whether they actually engage in the official tasks related to school improvement and to what degree.

The following measures may help set better expectations for teachers in Moldova:

- Set expectations for what percentage of teachers' working time should be dedicated to teaching and what percentage should be used for other necessary activities that may contribute to instructional improvement (including working on lesson plans, having office hours for students, grading assessments and the tasks mentioned above).
- Develop professional standards and descriptors and performance indicators for teachers, to be used for teacher self-evaluation and evaluation processes.

### Goal 2: Attracting the best into teaching

Entry requirements, teacher salaries, and career advancement opportunities may not be appealing for talented candidates.

- Strengthen selectivity of entry requirements for teacher training programs at universities.
- Ensure teachers get competitive pay, especially at the entry level.
- Create a mentoring program and make it possible for non-certified teachers-in-training to work in school while they are still obtaining their certification, to ensure that top candidates are

not deterred or kept out of school by lengthy qualification requirements.

- Put in place standards for career advancement and promotion so that career pathways for the teaching profession are clear.

### Goal 3: Preparing teachers with useful training and experience

Current teacher initial education systems may not be best suited to ensure good quality teachers, in particular in rural areas. Beginning teachers have opportunities to develop practical teaching skills, but only for a limited period of time before they are expected to teach without guidance.

- Require more extensive teaching practice before teachers obtain certification.
- Require junior teachers to participate in induction programs and receive mentoring by high-performing colleagues.
- Conduct a review or evaluation of pre-service programs within pedagogical institutions, to help them respond better to teachers' professional requirements and students' learning needs.

### Goal 4: Matching teachers' skills with students' needs

There are official systems in place to identify teacher shortages in hard-to-staff schools and by subject areas, but the mechanisms to address those shortages are not always working.

- Provide multiple incentives to teachers to work in hard-to-staff schools in rural areas (e.g. promotion, higher salary, scholarships for education, or housing).
- Provide more incentives to teachers to teach critical shortage subjects, in particular in rural areas.
- Consider offering incentives to practicing teachers (and not only beginning teachers) to increase the number of experienced teachers working with disadvantaged students.
- Help teachers acquire new skills so that they can teach critical shortage subjects.



### Goal 5: Leading teachers with strong principals

There are some training programs to support the professional development of principals in the area of school administration. Principals are expected to monitor teacher performance. At the same time, there are no specific training requirements to ensure that principals have the necessary skills to act as instructional leaders and successful managers. The following measures may help to ensure principals are more effective leaders:

- Conduct a needs assessment to better understand the specific needs and issues principals face in their work.
- Provide principals with an obligatory mentorship program, instructional leadership training, and ongoing professional development.
- Ensure that student achievement and teacher performance are factored into principal performance reviews and that they carry significant weight in the review process.
- Ensure that principals see professional development of teachers and school improvement as their core responsibility.
- Develop professional standards and descriptors or performance indicators for principals, to be used for managers' self-evaluation and evaluation processes.

### Goal 6: Monitoring teaching and learning

Moldova lacks reliable systems to assess student learning that may be used to inform policy and teaching. Teacher performance is evaluated every five years within a complex process of attestation and it uses multiple mechanisms that can assess effective teaching. Some policy options include:

- Revamp the student assessment system. Reliable and timely data on student performance in national and international assessments provide important information on school and system performance, and is a key tool in promoting accountability. Strengthening this system is fundamental to allow informed policy making and increased accountability at the school level.

- Once that step is completed, ensure that student achievement data collected are comparable year-on-year, so that it becomes possible to evaluate teacher and school performance over time.
- Put in place professional standards and performance indicators for teachers, which are essential to establish the criteria for teacher evaluations.
- Provide teachers with frequent constructive feedback in classroom practice.

### Goal 7: Supporting teachers to improve instruction

There are opportunities for teacher professional development, but teachers are required to pay for some of their own professional development activities. Some possible measures include:

- Continue to require that primary and secondary school teachers participate in professional development activities and how often it should happen.
- Focus more on improving the quality of professional development activities, rather than on increasing their quantity.
- Monitor the supply and demand for particular professional development activities, as well as ensuring that those activities respond to real training needs.
- Develop a school based system for professional development and collaboration.
- Monitor the effects of participation in professional development activities.
- Ensure that schools have adequate funding to invest in the professional development of teachers, particularly in rural areas.
- Promote diversification of training programs, and increase training support for underperforming teachers.
- Develop a mentoring program to support underperforming teachers.

## Goal 8: Motivating teachers to perform

There are some mechanisms in place to hold teachers accountable. At the same time, a new remuneration program needs to be designed and introduced to attract, develop, and retain teachers and school directors efficiently and effectively, and to improve teaching quality and staff performance. The following options might help to motivate teacher performance:

- Reward high-performing teachers with more desirable incentives—monetary, as well as non-monetary (such as awards and professional development opportunities).
- Ensure that teachers are recognized and rewarded for investing time and effort into activities related to instructional improvement by making the latter a prominent part of the teacher standards and of the criteria for performance appraisal.
- Ensure that monetary performance bonuses and non-monetary incentives are set so that they serve as an inducement for teachers to improve performance (i.e., ensure that they are tied to measures that capture effective teaching and that they are significant enough to act as an incentive).

## Acknowledgements

This report was prepared by Mary Breeding (Consultant, World Bank), Andrew Trembley (Consultant, World Bank), Anatol Gremalschi (Director of Education Programs, Institute for Public Policy), and Anna Olefir (Operations Officer, GEDDR), under the direction of Halsey Rogers (Lead Economist, GEDDR, World Bank). We are especially grateful for the leadership of Liliana Nicolaescu-Onofrei, the Deputy Minister of Education of Moldova, and the assistance of Viorica Postica and Rima Bezede (Consultants) in preparation of this report.

## References

- Attfield, Robin. (2011). "Development of Accreditation for School Directions: Discussion Paper." Washington, DC: World Bank.
- Barber, M., & Mourshed, M. (2007). *How the World's Best-Performing School Systems Come Out on Top*. London, UK: McKinsey & Co.
- Bruns, B., Filmer D., Patrinos H. A. (2011). *Making schools work: new evidence on accountability reforms*. World Bank. Washington, DC: World Bank.
- Campante, F. & Glaeser, E. L. (2009). "Yet Another Tale of Two Cities: Buenos Aires and Chicago." NBER Working Paper 15104. Cambridge, MA: National Bureau of Economic Research (NBER).
- Chaudhury, N., Hammer, J., Kremer, M., Muralidharan, K., & Rogers, F. H. (2006). "Missing in Action: Teacher and Health Worker Absence in Developing Countries." *Journal of Economic Perspectives*, 20:1, pp. 91-116.
- Darling-Hammond, L. (2010). "Steady Work: How Countries Build Successful Systems." In Darling-Hammond, L. (2010). *The Flat World and Education: How America's Commitment to Equity Will Determine Our Future*. New York, NY: Teachers College.
- Darling-Hammond, L.; & Rothman, R. (2011). *Teacher and leader effectiveness in high-performing education systems*. Washington, DC: Alliance for Excellent Education.
- Habyarimana, J. (2007) *Characterizing Teacher Absence in Bulgaria: Evidence from 2006 Unit Cost Study*. Washington, DC: The World Bank.
- Hanushek, E. A., & S. G. Rivkin. (2010). "Generalizations about Using Value-Added Measures of Teacher Quality." *American Economic Review*. 100 (2): 267–71.
- Hanushek, E. & Woessmann (2007). "Education Quality and Economic Growth." Washington, DC: The World Bank.
- Hanushek, E. & Woessmann (2009). "Schooling, Cognitive Skills, and the Latin American Growth Puzzle." NBER Working Paper 15066. Cambridge, MA: National Bureau of Economic Research (NBER).
- Herrmann, M. A., & Rockoff, J. E. (2009). "Work Disruption, Worker Health, and Productivity: Evidence from Teaching." New York, NY: Columbia Business School.
- Ingersoll, R. (2007). *A comparative study of teacher preparation and qualifications in six nations*. Consortium for Policy Research on Education.
- Levin, B. (2008) *How to change 5000 schools*. Cambridge, MA: Harvard Education Press.
- Miller, R. T., Murnane, R. J., & Willett, J. B. (2008). "Do Teacher Absences Impact Student Achievement? Longitudinal Evidence From One Urban School District." *Educational Evaluation and Policy Analysis*, 30(2), 181-200.
- National Statistical Institute. (2013). "Net Enrollment of Children in Kindergartens Table," <http://www.nsi.bg/otrasalen.php?otr=36&a1=1267&a2=1271&a3=1272#cont>, Accessed 3 July, 2013.
- Nye, B., Konstantopoulos, S., & Hedges, L. V. (2004). "How Large Are Teacher Effects?" *Educational Evaluation and Policy Analysis*, 26(3), 237-257.
- OECD. (2009). *PISA 2009 Results: What Students Know and Can Do—Student Performance in Reading Mathematics and Science*, <http://dx.doi.org/10.1787/9789264091450-en>, Accessed 3 July, 2013.
- OECD. (2011.) *Building a high-quality teaching profession .Lessons from around the world*. Paris: OECD.
- OECD. (2012). *Preparing teachers and developing school leaders for the 21<sup>st</sup> century*. Paris: OECD.

Park, A., & Hannum, E. (2001). "Do Teachers Affect Learning in Developing Countries?: Evidence from Matched Student-Teacher Data from China." *Paper presented at the Conference Rethinking Social Science Research on the Developing World in the 21st Century*. Park City, Utah: Social Science Research Council.

PIRLS. (2001). *PIRLS International Report*, [http://timss.bc.edu/pirls2001i/pdf/P1\\_IR\\_Ch01.pdf](http://timss.bc.edu/pirls2001i/pdf/P1_IR_Ch01.pdf), Accessed 3 July, 2013.

Pritchett, L. & Viarengo, M. (2009). "Producing Superstars for the Economic Mundial: The Mexican Predicament with Quality of Education. PEPG Working Paper 09-01. Cambridge, MA: Program on Education Policy and Governance (PEPG).

Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). "Teachers, Schools and Student Achievement." *Econometrica*, 73(2), 417-458.

Rockoff, J. E. (2004). "The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data." *American Economic Review*, 94(2), 247-252.

Rogers, F. H., & Vegas, E. (2009). "No More Cutting Class? Reducing Teacher Absence and Providing Incentives for Performance." *Policy Research Working Paper 4847*. Washington, DC: The World Bank.

Sanders, W. L., & Rivers, J. C. (1996). "Cumulative and Residual Effects of Teachers on Future Student Academic Achievement." *Research Progress Report*. Knoxville, TN: University of Tennessee Value-Added Research and Assessment Center.

Vegas, E., et al. (2012) *What matters most in teacher policies? A framework for building a more effective teaching profession*. Washington, DC: The World Bank.

### Official documents

1. Educational Law of Republic of Moldova nr. 547, from 21.07.1995, <http://lex.justice.md/>

2. Regulations for the certification of the teaching staff – Ministry of Education, 2013, <http://www.edu.md/ro/regulamentul-de-atestare-a-cadrelor-didactice/>

3. Regulations for the certification of the managerial staff: <http://www.edu.md/ro/documente-de-politici>

4. Regulations for the organization of continuing vocational training, <http://lex.justice.md/>

5. Regulations for the cooperation of educational institutions with the parents' public associations: <http://lex.justice.md/>

6. Regulations for the organization and the conduct of the recruitment contest for the position of director of an educational institution: <http://lex.justice.md/>

## Annex 1. SABER-Teachers Ratings

The SABER-Teachers team has identified policy levers (actions that governments can take) and indicators (which measure the extent to which governments are making effective use of these policy levers) for each of the eight policy goals referenced in this country report. For example, for Teacher Policy Goal 1, Setting Clear Expectations for Teachers, the SABER-Teachers team has identified the following policy levers and indicators:

**Table 14. Setting Clear Expectations for Teachers**

Policy Levers	Indicators
A. Are there clear expectations for teachers?	1. Are there standards for what students must know and be able to do? 2. Are the tasks that teachers are expected to carry out officially stipulated?
B. Is there useful guidance on the use of teachers' working time?	1. Do teachers' official tasks include tasks related to instructional improvement? 2. Does the statutory definition of working time for primary school teachers recognize non-teaching hours? 3. What is the share of working time allocated to teaching for primary school teachers?

For each goal in the country report, we define the goal in the first paragraph of the country report, identify the levers in the second paragraph, and the remaining paragraphs are used to provide details about the indicators that measure each of the levers.

Using the policy levers and indicators, SABER-Teachers classifies education systems' performance on each of the 8 Teacher Policy Goals using a four-category scale (latent, emerging, established, and advanced), which describes the extent to which a given education system has in place teacher policies that are known to be related to improved student outcomes.

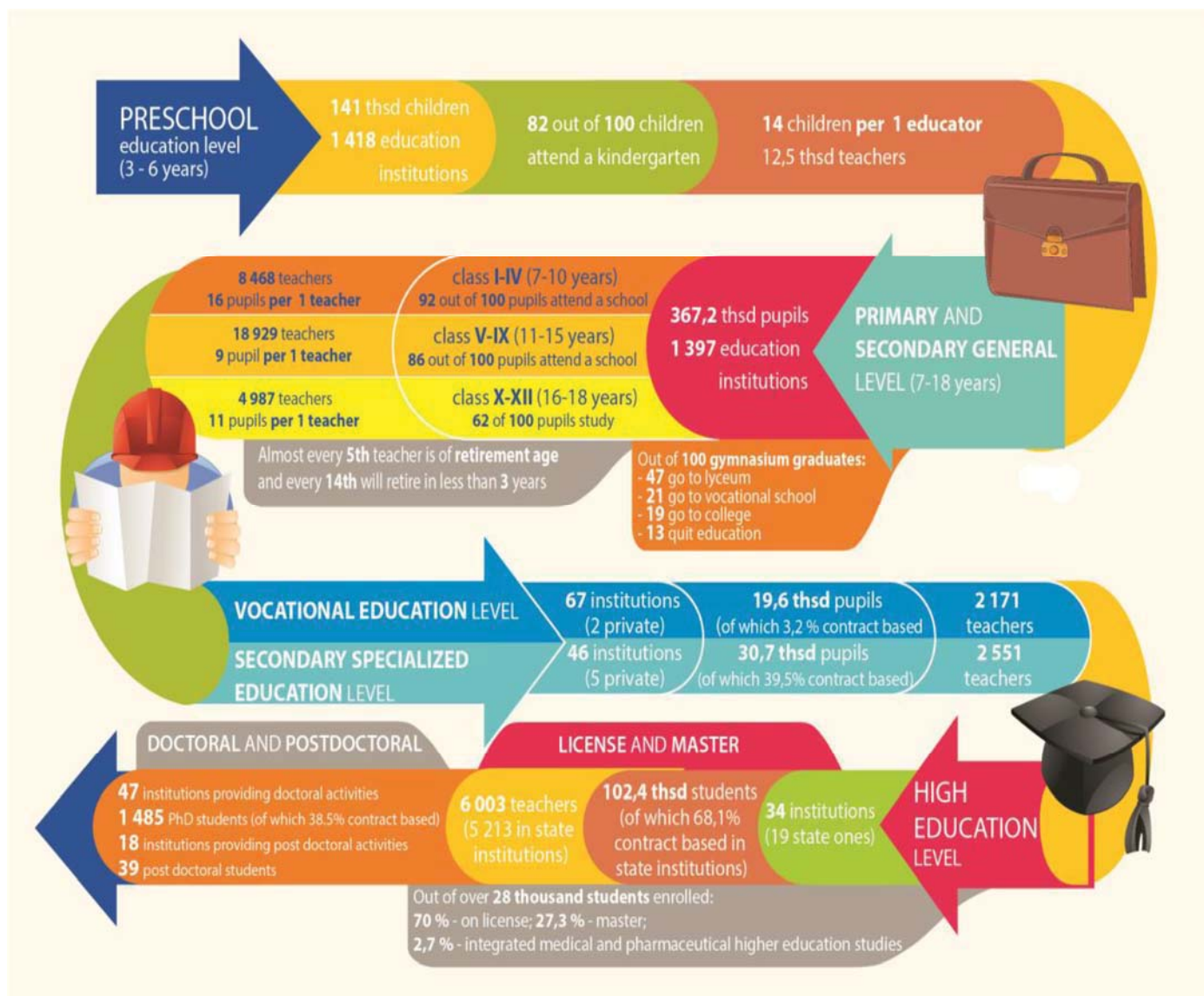
This four-tiered rating system represents a continuum from systems with more comprehensive, developed policies oriented toward learning to systems with no policies at all (or, in some cases, policies that are detrimental from the perspective of encouraging learning). SABER-Teacher ratings can be defined in the following manner:

- **Advanced**—Systems that are rated “advanced” toward a particular policy goal are those that have multiple policies conducive to learning in place under each of the policy levers used to define a policy goal.
- **Established**—“Established” systems are those that have at least one policy/law in place that uses those policy levers.
- **Emerging**—“Emerging” systems may have only some appropriate policies in place under the policy goal.
- **Latent**—“Latent” systems are those that have none or few. Please refer to Vegas et al. 2012 for a detailed review of policy levers and indicators assessed for each goal.

Please reference the Vegas et al. (2012) background paper, *“What matters most for teacher policies? A framework for building a more effective teaching profession,”* for more details about these definitions and a detailed review of policy levers and indicators used by SABER-Teachers.



## Annex 2. Education system in Republic of Moldova



The **Systems Approach for Better Education Results (SABER)** initiative produces comparative data and knowledge on education policies and institutions, with the aim of helping countries systematically strengthen their education systems. SABER evaluates the quality of education policies against evidence-based global standards, using new diagnostic tools and detailed policy data. The SABER country reports give all parties with a stake in educational results—from administrators, teachers, and parents to policymakers and business people—an accessible, objective snapshot showing how well the policies of their country's education system are oriented toward ensuring that all children and youth learn.

This report focuses specifically on policies in the area of teacher policies.

This work is a product of the staff of The World Bank with external contributions. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent. The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

