



Policy Goals

1. Setting clear expectations for teachers

There are expectations for what teachers should do and what students should learn. Policies guiding teachers' use of time are not focused on ensuring that their work conditions allow them to improve instruction.

Emerging



2. Attracting the best into teaching

Teacher qualifications are low relative to qualifications for entering other skilled professions. Teacher pay, career opportunities, and working conditions may not be attractive to competent and qualified individuals.

Emerging



3. Preparing teachers with useful training and experience

Classroom experience requirements for novice teachers are limited. Teacher trainees are required to gain practical professional experience in the classroom before teaching, but there is no induction program for new teachers.

Latent



4. Matching teachers' skills with students' needs

There are few incentives for teachers to work in hard-to-staff schools and no incentives to teach critical shortage subjects.

Latent



5. Leading teachers with strong principals

There are few requirements to become a principal, even though principals are expected to perform a variety of tasks, which include providing support and guidance to teachers for the improvement of instructional practice.

Latent



6. Monitoring teaching and learning

There are national student learning assessments at the primary level, and data management systems and there is a system in place for monitoring teacher performance.

Established



7. Supporting teachers to improve instruction

Teacher professional development is not required, and it is unclear what professional development activities include.

Latent



8. Motivating teachers to perform

Policies stipulate that teacher performance should affect teacher compensation and appointments, but there are few mechanisms to hold teachers accountable.

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 10 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 eight 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; and 8. Motivating teachers to perform (see Figure 1).

Figure 1: 8 Teacher Policy Goals



The eight 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 eight 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 eight 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 eight

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. 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. 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, and in fact they often do so, 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 Mali. It describes Mali's performance in each of the eight 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 Mali's and other education systems' teacher policies can be found on the SABER-Teachers website.

Mali's Teacher Policy System Results

Goal 1. Setting clear expectations for teachers

Emerging ●●○○

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.

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 Mali, the tasks that teachers are expected to carry out are officially stipulated through the national curriculum. Mali has defined a set of standards which informs teachers of required subject content and measurable indicators of learning that should be achieved by students at different grades. The tasks that teachers are expected to carry out are officially stipulated.

(2) Policies for guidance on teachers' use of time are not focused on ensuring that their work conditions allow them to improve instruction. Teachers' working time in Mali is officially defined as the number of hours spent teaching (contact time with students) as opposed to counting the overall number of hours spent at the school. This fails to recognize 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. This definition is also inconsistent with some of the officially defined tasks that are stipulated for teachers. For instance, Mali has defined tasks for teachers related to instructional improvement. Primary and secondary school are expected to participate in: mentoring or providing support to other teachers, collaborating on the school plans, and taking part in the internal evaluation system of the school.

Successful education systems such as Finland, Japan, South Korea, Singapore, and Ontario, Canada devote considerable time at the school level to such 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 teacher's time to actual contact time with students, and a relatively 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 this type of activities, while Ontario currently devotes 30 percent (Darling Hammond & Rothman 2011). In other words, like Mali, these high performers generally include school-improvement tasks in the teachers' responsibilities; the difference is that Mali does not officially include non-teaching time for these tasks in the teacher workday (Figure 2).

Figure 2. Teachers' official tasks related to school improvement

	Mali	Benin	Shanghai	Singapore
Mentor peers	✓	✓		✓
Collaborate on school plan	✓	✓	✓	✓
Design the curriculum				✓
Participate in school evaluation	✓	✓		✓

Source: SABER-Teachers data.

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 school systems can use to reach this goal: (1) minimum requirements to enter the teaching profession; (2) competitive pay; (3) appealing working conditions; and (4) attractive career opportunities.

(1) Initial education standards for primary teachers in Mali are low relative to standards for teachers in many higher-performing systems. Both primary and secondary education teachers are trained at the ISCED¹ 4A level, meaning that their qualifications are awarded for completing pre-degree foundation courses or short vocational or technical programs. Only concurrent models of pre-service teacher training exist, in which prospective teachers learn content and receive training in pedagogy somewhat simultaneously. Low requirements for teachers may signal teaching as a low status profession as compared to other career options teacher trainees could choose. Improving standards for teachers could make teaching a more attractive career choice.

(2) Teacher pay in Mali does not vary according to performance, although it does vary based on teachers' educational attainment and seniority. Moreover, incentives to enter the profession are low. Many teachers do not receive any benefits such as retirement pensions or health benefits, but teachers who are civil

servants receive a pension and contribute to a health insurance program.

(3) There is limited aggregate information in data collected to determine the quality of working conditions. The government does collect some data on school infrastructure, but aggregate data and statistics are not available. The student-teacher ratio in Mali was last reported at 50.4 to 1 (World Bank 2011). However, data are not available on the share of schools that comply with infrastructure standards, making it difficult to assess how these working conditions may affect the quality of teacher entrants.

(4) Career opportunities could be strengthened to attract talented individuals to the profession. In particular, teachers' pay could be better linked to performance. At present, teachers can advance in their careers by applying to academic or administrative posts such as lead teacher or principal. This form of advancement is similar to those of both Gambia, a developing education system, and Shanghai, a more advanced education system (Figure 3).

Figure 3. Opportunities for career advancement

	Mali	Benin	Shanghai	Singapore
Lead teacher	✓		✓	✓
Principal	✓	✓	✓	

Source: SABER-Teachers data.

¹ UNESCO developed the International Standard Classification of Education (ISCED) to facilitate comparisons of education statistics and indicators across countries.

Goal 3. Preparing Teachers with Useful Training and Experience

Latent ●○○○

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

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

(1) In Mali, primary and secondary teacher initial education takes place at the ISCED 4A level, which is low relative to many education systems. Virtually all high-performing countries, for instance, 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). In Mali, primary school teachers are considered qualified to teach after completing the equivalent of vocational courses. Candidates take these courses after completing secondary education. Primary school teachers must complete nine years of basic education and then four years of teacher training at the Institut de Formation des Maitres (IFM)—Teacher Training Institute. Primary teachers with a baccalaureate (BAC) must have two years of teacher training. Secondary school teachers need a master's (typically a BAC plus four additional years of schooling). Both primary and secondary school teachers must attend a minimum two-year training school before entering the profession.

(2) Teacher trainees are required to gain classroom experience in initial teacher education programs, but there is no formal induction or mentoring program. Research has shown that practical experience is an important factor in teaching quality—either through direct classroom engagement or mentoring programs (Darling-Hammond 2000). Teacher trainees in Mali are required to have between six and 12 months of classroom experience. The more teachers try out their pedagogical theories, subject matter knowledge, and

classroom management skills on a group of students, the better prepared they will be for their job.

(3) In Mali, pre-service teacher training could be strengthened by introducing a formal mentoring or induction program. Such training has the potential to make teachers more effective in the classroom (Figure 4).

Box 2. Best Practice: Pre-service Teacher Qualifications in Singapore

Singapore has multiple programs for becoming a teacher ranging from a one year post-graduate program after completion of a BA degree to a minimum of a two-year diploma program after completion of secondary school. Pre-service programs are rigorous and include education studies, curriculum studies, subject knowledge, a practicum, and language enrichment skills training (Ministry of Education Singapore 2012).

Figure 4. Required classroom experience, secondary school teachers

	Mali	Benin	Shanghai	Singapore
6 months or less				
12 months or less	✓	✓	✓	
12-24 months				✓
More than 24 months				

Source: SABER-Teachers data.

Goal 4. Matching Teachers’ Skills with Students’ Needs

Latent ●○○○

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 located in more desirable areas, deepening inequalities in the system.

SABER-Teachers considers two policy levers 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 critical shortage areas.

(1) In Mali, there are monetary incentives for teaching in hard-to-staff schools, and teaching experience is not a factor considered when deciding transfer priorities. Attracting effective teachers to work in hard-to-staff schools (typically schools that are in disadvantaged locations or serve underprivileged populations) is a challenge for many countries, and often requires specific incentives (Figure 5). Without such incentives, teachers tend to gravitate towards schools that have more appealing working conditions. Possible ways to improve the quality of teachers in hard-to-staff schools include giving accelerated promotion opportunities or providing housing allowances to teachers who have worked in such schools (McEwan 1999). Basing teacher transfer priorities on factors other than just experience can also help, by reducing the concentration of the least experienced teachers in the neediest areas.

(2) Mali has not identified critical shortage subjects, or subject areas in which there is a severe shortage of qualified teachers. It is important to assess different subject areas and identify areas in which there may be a shortage of qualified teachers who are willing to teach particular subjects. In high-performing and top-improving systems, various incentives exist to attract talented professionals, particularly from high-demand fields, to teach critical shortage subjects.

Box 3. Best Practice: Mississippi, USA

The Mississippi Department of Education has worked to identify critical shortages areas and offers incentives to teachers to teach these subjects, including: more benefits, higher salary, and forgiveness of student loans. Such incentives can draw quality teachers who would otherwise not teach these subject areas (Mississippi Department of Education 2012).

Figure 5. Incentives for teachers to teach in hard-to-staff schools

	Mali	Benin	Shanghai	Singapore
Better chances of promotion			✓	
Higher basic salary				
Monetary bonus	✓	✓	✓	
Subsidized education			✓	
Housing support				

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 Teacher with Strong Principals

Latent ●○○○

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 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 Mali, there are no programs to support the development of leadership skills through supervised internships. Additionally, there is not any specific coursework to promote leadership skills. Principals are not required to have minimum qualifications—either in terms of education or professional teaching experience. Higher performing and improving systems normally require minimum educational qualifications, years of experience, and specific coursework and participation in an internship or mentoring program for individuals interested in applying for a principal's position to develop specific leadership skills.

(2) Principals do not receive monetary rewards for their performance in Mali, but they are expected to participate in a wide range of activities. For instance, principals are expected to provide support and guidance to teachers for the improvement of instructional practice—a task for which they receive no particular training to perform.

(3) Evidence from high-performing systems suggests that principal performance in Mali could be further enhanced by providing principals with a mentoring program or specific coursework to promote leadership skills. Principals' leadership skills can be developed through supported work experience or through specific training courses. High-performing systems such as in 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).

Figure 6. Mechanisms to support the development of principals' leadership skills

	Mali	Benin	Shanghai	Singapore
Courses or other training requirements			✓	✓
Participation in mentoring or internship program		✓		✓

Source: SABER-Teachers data.

Box 4. Best Practice: School Leadership in Ontario, Canada

“In response to the pressures facing Ontario principals, the Ontario government launched the Ontario Leadership Strategy in 2008. One facet of this strategy includes increased mentorship for new principals. Mentors can play a vital role, given that nearly half of Ontario principals have five years of experience or less” (People for Education 2011).

Goal 6. Monitoring Teaching and Learning

Established ●●●○

Assessing how well teachers are teaching and whether students are learning 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 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) In Mali, student achievement data are collected, but are not used to inform teaching or policy. Mali conducts annual assessments of student learning for all students after completion of grades six and nine. However, student assessment data cannot necessarily be linked to teacher or student information, so they may not be used to inform teachers about the learning needs of their students.

(2) There are systems in place to monitor teacher performance through both internal and external evaluations. Local authorities monitor teacher performance, and national authorities in the Ministère de l'Emploi et de la Fonction Publique assign unique identification numbers to teachers, making it possible to track and monitor their performance over time.

(3) A variety of criteria are used to evaluate teacher performance. 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. In Mali, both school principals and colleagues participate in teacher performance evaluations, and classroom observations are used (Figure 7). Criteria used to assess teacher performance include subject matter knowledge, teaching methods, student assessment methods, and student academic achievement.

Figure 7. Criteria to evaluate teacher performance

	Mali	Benin	Shanghai	Singapore
Subject matter knowledge	✓	✓		✓
Teaching methods	✓		✓	✓
Student assessment methods		✓	✓	✓
Students' academic achievement	✓	✓	✓	

Source: SABER-Teachers data.

Goal 7. Supporting Teachers to Improve Instruction

Latent ●○○○

Support systems are necessary to help improve instruction at the school level. To improve instructional practice continuously, 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 school systems can use to reach this goal: (1) availability of opportunities for teachers' professional development; (2) teacher professional development activities that are collaborative and focused on instructional improvement; (3) assignment of teacher professional development based on perceived needs.

(1) In Mali, neither primary nor secondary school teachers are required to participate in teacher professional development activities. National authorities pay for teacher professional development activities when they occur. However, the content of professional development activities appears weak.

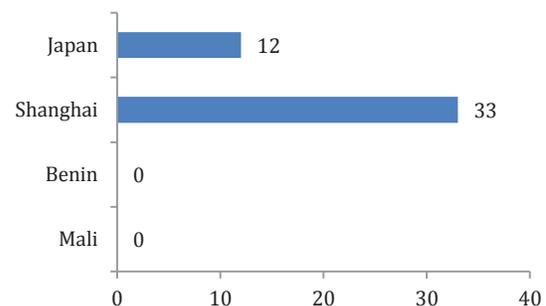
(2) It is unclear what professional development activities in Mali actually include (Figure 8). Research suggests that the most effective teacher professional development is collaborative and provides opportunities for the in-school analysis of instructional practice, as opposed to being limited to one-time workshops or conferences. For instance, effective teacher development activities may include observation visits to other schools, participation in teacher networks, or participation in school networks.

(3) Teacher professional development is formally assigned based on perceived needs. Assigning professional development to teachers when they score low on performance evaluations can be one way of improving instructional practice. In that way, teacher professional development can be targeted to the needs of specific teachers, rather than being deployed to all teachers regardless of their needs.

Box 5. Best Practice, Japan Lesson Study System

Japan has a unique professional development system that uses a lesson study approach. Teachers work together in small groups and collaborate with one another. They meet regularly to discuss learning goals, develop actual classroom activities, and to observe how their plans work in practice. They then report on their performance so that other teachers can benefit (Colinson et al. 2001).

Figure 8. Required or suggested days of teacher professional development per year



Source: SABER-Teachers.

Goal 8. Motivating Teachers to Perform

Emerging ●●○○

Adequate mechanisms for motivating 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 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) Promotion opportunities are linked to performance in Mali, but open-ended appointments are not informed by performance history. There is no mandatory probation period for teachers before they are granted open-ended appointments.

(2) There are few mechanisms in place to hold teachers in Mali accountable. Requiring teachers to meet some standards to remain in the teaching profession can facilitate the removal of ineffective teachers. One minimum standard is consistent teacher attendance. Research in both developed and developing countries indicates that teacher absenteeism can reach high levels, worsening student outcomes (Chaudhury et al. 2005; Herrmann & Rockoff 2009; Miller, Murnane & Willett 2008; Rogers & Vegas 2009). Education systems can encourage teacher attendance by taking it into account in teacher evaluations, providing teachers with incentives to be present in school, and dismissing teachers if they are consistently absent. In Mali, primary and secondary school teachers are not required to participate in professional development or performance evaluations to remain in the profession (Figure 9). Requiring teachers to meet some standards in order to remain in the teaching profession can facilitate the removal of ineffective teachers. Teachers can, however, be dismissed on several grounds, including: absenteeism, misconduct, child abuse, incompetence, and poor performance.

(3) In Mali, teacher compensation is officially linked to performance. Performance reviews in Mali carry salary implications, but high-performing teachers do not receive monetary bonuses for good individual

performance. Linking either longer-term compensation or shorter-term bonuses to teacher performance can be one way to improve teacher performance, if the system has in place an adequate system of performance evaluation.

Figure 9. Requirements to remain in the profession, primary and secondary school teachers

	Mali	Benin	Shanghai	Singapore
<i>Primary school teachers:</i>				
Professional development		✓	✓	
Performance evaluations		✓	✓	✓
<i>Secondary school teachers:</i>				
Professional development		✓	✓	
Performance evaluations		✓	✓	✓

Source: SABER-Teachers data.

SABER Teachers Policy Options

Goal 1. Setting Clear Expectations for Teachers

The national curriculum sets expectations for what students are supposed to learn and teachers are supposed to do. There is no official guidance on teachers' use of time, which could help ensure that teachers are focused on tasks related to school improvement.

- Revise the statutory definition of teacher's working time to include the overall number of hours teachers spend at the school. In accordance with the practice in higher-performing systems, this definition should include both time in the classroom as well as time spent on nonteaching activities, such as tasks related to improving instruction. Such activities might include: providing support to other teachers, collaborating on school plans, or designing the curriculum—all tasks that could contribute to instructional improvement of the school.
- 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.

Goal 2. Attracting the Best into Teaching

Career opportunities could be strengthened to attract talented individuals to the profession.

- Link teacher's pay and promotion opportunities more directly to teacher performance.
- Improve data collected on teachers' working conditions. Understanding teachers' working environments is imperative to understanding teacher's classroom needs and improving the quality of teaching.

Goal 3. Preparing Teachers with Useful Training and Experience

In Mali, primary school teachers are considered qualified to teach after completing the equivalent of vocational courses. Candidates take these courses after completing secondary education. Primary school teachers must complete nine years of formal schooling and secondary teachers must complete 11 years and have a baccalaureate (BAC).

- Enforce entry requirements to ensure that teachers have necessary qualifications when entering pre-service teacher training. According to the law, for instance, secondary school teachers must have a BAC. In practice, very few secondary teachers have completed the BAC.
- Pre-service teacher training could be strengthened by introducing a formal mentoring or induction program.

Goal 4. Matching Teachers' Skills with Students' Needs

There are untapped incentives to get teachers to work in hard-to-staff areas where living conditions are less attractive and to teach critical shortage subjects.

- Work to identify hard-to-staff schools.
- Provide incentives to teachers to teach and work in hard-to-staff schools. Incentives could include: promotion, higher salary, monetary bonuses, scholarships for education, or housing.
- Identify subject areas in which there may be a shortage of qualified teachers who are willing to teach particular subjects, and provide incentives to teachers willing and qualified to teach those subjects.

Goal 5. Leading Teachers with Strong Principals

Principals lack necessary support to carry out their activities in an effective manner.

- Provide programs to support the development of principals' leadership skills. These may include mentoring, training, or induction programs.
- Set higher requirements for becoming a principal. Such qualifications may include having minimum educational qualifications equivalent to a bachelor's degree, increasing the years of experience required, and/or designing specific coursework for individuals interested in working as a school principal.
- Consider monetary bonuses or increased pay, which are other ways to attract individuals to principal positions.

Goal 6. Monitoring Teaching and Learning

There are systems in place to monitor teacher performance that rely on multiple criteria. Student

achievement data are collected, but are not used to inform policy or teachers' classroom instruction.

- Make use of student achievement data collected from annual exams. Use outcomes of these data to determine educational needs.
- Provide results of student achievement data to school principals, so they may know how their school performs relative to other schools. If data can be made available to teachers, use the data to inform teachers about student performance and to help teachers improve their own instruction.

Goal 7. Supporting Teachers to Improve Instruction

In Mali, neither primary nor secondary school teachers are required to participate in teachers' professional development activities.

- Set a required number of days for teachers to participate in professional development activities throughout the school year.
- Offer professional development activities in which teachers can learn from one another and improve their classroom instruction. Research suggests that the most effective teacher professional development is collaborative and provides opportunities for the in-school analysis of instructional practice, as opposed to being limited to one-time workshops or conferences.

Goal 8. Motivating Teachers to Perform

Promotion opportunities are linked to performance but there are few mechanisms to hold teachers accountable.

- Require primary and secondary school teachers to participate in professional development and performance evaluations to remain in the profession.
- Reward high-performing teachers with incentives. Linking either longer-term compensation or shorter-term bonuses to teacher performance can be one way to improve teacher performance, if the system has in place an adequate system of performance evaluation.

Acknowledgements

This report was prepared by Mary Breeding (Consultant, HDNED), with inputs from Andrew Trembley (Consultant, HDNED), and under the direction of Halsey Rogers (Lead Economist, HDNED). We are especially grateful for the assistance of Linda English (Lead Education Specialist, AFTHD), Pierre Joseph Kamano (Senior Education Specialist, AFTEW) and Cheick Oumar Fomba (Consultant).

References

- Chaudhury, N., Hammer, J., Kremer, M., Muralidharan, K., & Rogers, F. H. (2005). "Missing in Action: Teacher and Health Worker Absence in Developing Countries." *PEPG Working Paper Series*. Cambridge, MA: Program on Education Policy and Governance (PEPG).
- 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.
- Hanushek, E. A., Kain, J. F., O'Brien, D. M., & Rivkin, S. G. (2005). "The Market for Teacher Quality." *NBER Working Paper 11154*. Cambridge, MA: National Bureau of Economic Research (NBER).
- . (2004). "Why Public Schools Lose Teachers." *The Journal of Human Resources*, 39(2), 326-354.
- Hanushek, E. A., & Rivkin, S. G. (2006). "Teacher Quality." In E. A. Hanushek & F. Welch (Eds.), *Handbook of the Economics of Education (Vol. 2)*. Amsterdam: Elsevier.
- Herrmann, M. A., & Rockoff, J. E. (2009). "Work Disruption, Worker Health, and Productivity: Evidence from Teaching." New York, NY: Columbia Business School.
- Levin, B. (2008) *How to Change 5000 Schools*. Cambridge, MA: Harvard Education Press.
- McEwan, Patrick J. (1999), "Recruitment of rural teachers in developing countries: an economic analysis", *Teaching and Teacher Education* 15 (8): 849-859.
- 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.
- Ministry of Education Singapore. (2012). "Teacher Training." Accessed 7/2/2012, <http://www.moe.gov.sg/careers/teach/career-info/training/>.
- Mississippi Department of Education. (2012). "Mississippi Teacher Center: Critical Shortage Areas." Accessed 6/18/2012, <http://www.mde.k12.ms.us/teacher-center>.
- Nye, B., Konstantopoulos, S., & Hedges, L. V. (2004). "How Large Are Teacher Effects?". *Educational Evaluation and Policy Analysis*, 26(3), 237-257.
- 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.
- People for Education. (2011). "People for Education Annual Report on Ontario's Public Schools 2011." Accessed 6/18/2012, <http://www.peopleforeducation.ca/wp-content/uploads/2011/07/Principals-in-Schools-2011.pdf>.
- 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. (1998). "Value Added Assessment." *School Administrator*, 11(55), 24-27.
- 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., Loeb, S., Romaguera, P., Paglayan, A. S., Goldstein, N., & Ganimian, A. J. (2010). "SABER - Teachers: Objectives, Rationale, Methodological Approach, and Products." Washington, DC: The World Bank.
- Vignoles, A., Levacic, R., Walker, J., Machin, S., & Reynolds, D. (2000). "The Relationship between Resource Allocation and Pupil Attainment: A Review." *Report 228*. London, UK: Centre for the Economics of Education, London School of Economics and Political Science.

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.

