



Policy Goals

Status

1. Setting Clear Expectations for Teachers

Standards for what students should know and be able to do exist at the subnational level. However, national curricular standards are still under debate. National law defines the tasks teachers are expected to carry out at schools.



2. Attracting the Best into Teaching

Requirements to become teachers could be more stringent to attract qualified candidates to enter the profession.



3. Preparing Teachers with Useful Training and Experience

The minimum education level required to become a teacher is a university degree. However, candidates could benefit from additional practical experience before entering the profession.



4. Matching Teachers' Skills with Students' Needs

While there are some incentives for working in hard-to-staff schools located in vulnerable areas, no incentives exist for teachers who teach critical shortage subjects.



5. Leading Teachers with Strong Principals

Principals have no specific qualification requirements and receive little training for the job. In practice, they hardly support instructional improvement.



6. Monitoring Teaching and Learning

While student assessments evaluate student achievement at the national level, there is no system to monitor nor centralize criteria to evaluate teacher performance.



7. Supporting Teachers to Improve Instruction

State and municipal schools in Brazil usually require teachers to participate in professional development as part of their official duties, however, they do not use the most effective methods of professional development.



8. Motivating Teachers to Perform

Promotion opportunities and hiring decisions are not officially linked to teachers' performance outcomes and minimal expectations of teacher performance are in place.



Data collection on Brazil's teacher policies was completed in 2015. Consequently, the findings in this report reflect the status of the country's teacher policies at that time.

Overview of SABER-Teachers

There is growing 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 and Woessmann, 2007, 2009; Pritchett and Viarengo, 2009; Campante and Glaeser, 2009). Teachers are the key. Recent studies have shown that teacher quality is the main school-based predictor of student achievement; several consecutive years of outstanding teaching, moreover, can offset the learning deficits of disadvantaged students (Hanushek and Rivkin, 2010; Rivkin, Hanushek and Kain, 2005; Nye and Hedges, 2004; Rockoff, 2004; Park and Hannum, 2001; Sanders and Rivers, 1996). However, formulating appropriate teacher policies to ensure that every classroom has a motivated, supported and competent teacher remains a challenge. 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 already in place.

SABER-Teachers aims to help fill this gap by collecting, analysing, 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 of the World Bank Education Global Practice. SABER collects information about the policy domains of different education systems, analyses it to identify common challenges and promising solutions, and makes this information widely available to inform countries' policy-makers on where and how to invest in order to improve the quality of education.

SABER-Teachers collects data on ten core areas of teacher policy to offer a comprehensive descriptive overview of the policies in place in each participating education system (Box 1). Data are collected in each participating education system by a specialized

consultant using a questionnaire so as to ensure the comparability of information across the different education systems. Data collection focuses on the rules and regulations governing teacher management systems. This information is compiled in a comparative database. Interested stakeholders can access the database for detailed information, which is organized into categories that describe how different education systems manage their teaching force, as well as copies of supporting documents. The full database is available through the [SABER website](#).

Box 1. Teacher policy areas for data collection

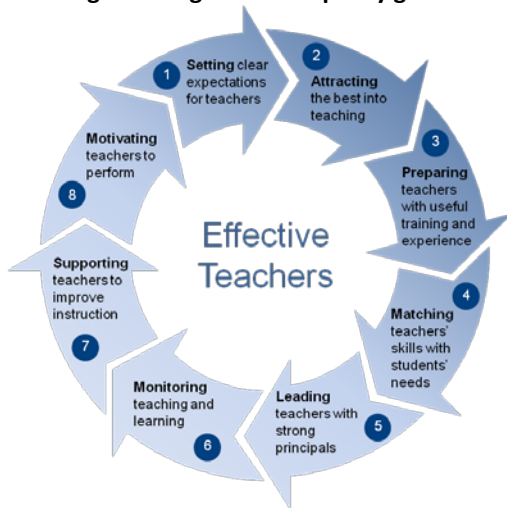
1. Requirements to enter and remain in teaching
2. Initial teacher education
3. Recruitment and employment
4. Teachers' workload and autonomy
5. Professional development
6. Compensation (salary and non-salary benefits)
7. Retirement rules and benefits
8. Monitoring and evaluation of teacher quality
9.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

To offer informed policy guidance, SABER-Teachers analyses these data to assess how well each system's teacher policies promote student achievement based on the global evidence to date. Specifically, SABER-Teachers assesses each education system's progress in achieving eight teacher policy goals (Box 2).

Box 2. Teacher policy goals for evaluation

1. Setting clear expectations for teachers
2. Attracting the best into teaching
3. Preparing teachers with useful training
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. Eight teacher policy goals



All high-performing education systems fulfil these eight teacher policy goals 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 research studies on teacher policies, as well as an analysis of policies of top-performing and rapidly improving education systems. Three criteria were used to identify the teacher policy goals, which had to be: (1) linked to student performance through empirical evidence; (2) a priority for resource allocation; and (3) actionable, meaning that they identify actions that governments can take to improve education policy. The eight teacher policy goals exclude other objectives that countries might wish to pursue to increase the effectiveness of their teachers, but on which there is too little empirical evidence at present to allow for specific policy recommendations.

By classifying countries based on their performance in each of the eight teacher policy goals, SABER-Teachers helps diagnose the key challenges to cultivating effective teachers. For each policy goal, the SABER-Teachers team identified policy levers (actions that governments can take to reach these goals) and indicators (that measure the extent to which governments are making effective use of these policy levers). Using these policy levers and indicators, SABER-Teachers classifies the progress of education systems towards achieving each of the eight teacher policy goals using a four-tiered scale (latent, emerging, established and advanced). The scale assesses the extent to which a given education system has put in place the type of teacher policies 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 thus pinpoint possible areas for improvement (Vegas et. al, 2012).

The main focus of SABER-Teachers is policy design, not policy implementation. SABER-Teachers analyses the teacher policies formally adopted by a given education system. This type of analysis is an important first step towards strengthening the policy and institutional frameworks that policy-makers most directly control and that influence how well a system functions. At the same time, policies ‘on the ground’, i.e. 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 on the part of the organizations charged with implementing them, and/or the interaction between these policies and specific contextual factors. Since SABER-Teachers collects only limited data on policy implementation, the analysis of teacher policies presented in this report should ideally be complemented with other data-gathering efforts that focus on how well teacher policies are actually implemented on the ground.

This report presents the results of the SABER-Teachers tool as applied in Brazil. A collaborative effort between the **International Task Force on Teachers for Education 2030** hosted within UNESCO and the **World Bank SABER-Teachers initiative** made this report possible. All data collection, related analysis, and report preparations were completed by UNESCO using the World Bank Group’s SABER tools. The report describes the performance of Brazil’s education system in achieving each of the eight teacher policy goals. It also contains comparative information from education systems that have consistently scored highly on international student achievement tests and those that have previously participated in the SABER-Teachers initiative. This report has been formally endorsed by the Ministry of Education of Brazil. Additional information on the teacher policies in the education systems of Brazil and other countries can be found on the [SABER-Teachers’ website](#).

Country Context

Economic Context

Brazil is Latin America's largest economy. The country is also among the ten major world economies, ranking number 9 in terms of GDP size (World Bank, 2016). From 2000 to 2012, Brazil was one of the world's fastest growing economies with an average annual GDP growth rate of over 5 per cent. In 2012, its economy surpassed that of the United Kingdom, making Brazil the world's sixth largest economy.

Between 2003 and 2014, Brazil was able to lift 29 million people out of poverty and lower inequality. The income level of the poorest 40 per cent of the population rose on average by 7.1 per cent (in real terms), compared with a 4.4 per cent income growth for the population as a whole. The Gini coefficient fell by 11 per cent during the same period (World Bank, 2016).

Despite the achievements in poverty reduction over the last decade, whose rates have been showing signs of stagnation since 2015, inequality remains at relatively high levels for a middle-income country. Brazil boasts extreme income, and racial and regional differences with regard to such social indicators as education, health, infant mortality and nutrition. Furthermore, beginning in 2015, the country has been in economic recession – its GDP contracted by 3.8 per cent – though the negative effects on the country's economic and social profile remains to be seen.

Education Context

Brazil's basic education is divided into early childhood (ages 0-6), fundamental education (first to ninth grades), and high school (tenth to twelfth grades). Starting in 2016, a Constitutional Amendment made it mandatory for children aged 4 to 17 years to be enrolled at school (Presidência da República, 2009). Public schooling is free, with equal access, progression and completion guaranteed by law. Brazil has a highly decentralized education system with 27 state systems and approximately 5,600 autonomous municipal systems. At the same time, Brazil has both centralized legal and assessment systems to ensure educational funding, common frameworks, and national evaluation of student achievement at all levels of government. The Ministry of Education is responsible for setting these national goals, while states and municipalities have responsibility for the provision of basic education within their jurisdictions. Municipalities are usually in charge of early childhood education and lower

fundamental education, and states are responsible for upper fundamental education and high school. Higher education is in the hands of the federal government.

Brazil has recently defined its education goals for a period of ten years through its National Education Plan (2014–24). The plan sets out 20 goals and targets along with broad strategies, including teacher policies. National, state and municipal sectors should interpret and implement these goals. Since 2000, education in Brazil has benefitted from a strong increase in funding and more equal allocation of public expenditure through a redistribution of national education development funds (OECD, 2015).

Teacher Policy Context

Low salaries, limited prospects for professional advancement, and poor social prestige drive the best students away from the teaching profession in Brazil (CDES, 2014). As a result, many of the students who decide to enter the profession start from a very poor foundation within their own basic education experience.

Brazil has pursued several policies over the last years to improve teacher quality. Nearly two decades ago, the first set of policies was aimed at increasing teacher qualifications and the quality of teacher training. These policies included a reform of the National Education Law, which required all basic education teachers to have a university degree. Aside from the National Education Law, other policies related to teacher professional development and the quality of initial teacher education were established by the government to improve teacher training and on-going professional development. However, despite these efforts, 25 per cent of teachers in the workforce still lack college education, especially in rural areas and in the most vulnerable urban zones (CDES, 2014). The second set of policies concerned an increase in teacher salaries. In 2008, a national law (Law No. 11738/2008) established the minimum wage for teachers, which represented a significant and equitable raise for public school teachers in Brazil. Since then, important annual increases in this minimum wage have impacted teachers' salaries in Brazil. In spite of these improvements, teachers still make almost 50 per cent less than other higher education professionals (CDES, 2014).

Brazil’s Teacher Policy System Results

Goal 1: Setting clear expectations for teachers

Established ●●●○

Setting clear expectations for student and teacher performance is important for guiding teachers’ daily work and aligning the resources necessary to help them constantly improve their instructional practice. In addition, clear expectations can help ensure coherence among the different key aspects of the teaching profession, such as initial teacher education, professional development and teacher appraisal.

SABER-Teachers considers two policy levers that school systems can use to reach Goal 1: (1) clear expectations of what students should know and be able to do; and (2) useful guidance on teachers’ use of time in order to improve instruction at the school level.

Policy

(1) In Brazil, some local and state governments have established what students should learn and be able to do, while national curricular standards are still under debate. National law defines the tasks teachers are expected to carry out in schools. At the national level, the Ministry of Education and the National Education Council are responsible for setting education goals and standards at the national level. In addition, given Brazil’s decentralized nature, states and municipalities can design and implement regional and local standards aligned with those set at the national level.

The Education Guidelines and Foundations Act (LDB) establishes that the curricula taught in Brazilian schools must follow the national common core and be composed of Portuguese language, mathematics, natural and social sciences, art, physical education and a modern foreign language. The law also stresses that indigenous and African-Brazilian history and culture should be taught in schools.

The LDB established a framework to develop the national common core standards for what students must know and be able to do after completing each subject in each grade. However, these standards were only drafted in 2015 and are currently under national debate. Nevertheless, some municipalities and states had already established their own standards.

(2) In Brazil, official teacher tasks are clearly stated and extended beyond teaching, and their working

time is officially stipulated. Successful education systems such as those of Ontario (Canada), Finland, Japan, South Korea and Singapore devote considerable time at the school level to instructional improvement activities, including collaborative teacher analysis of instructional practice, as well as mentoring and professional development (Darling-Hammond and Rothman, 2011; Darling-Hammond, 2010; Levin, 2008). In addition, these systems tend to devote a smaller share of teachers’ time to actual contact with students than do other systems, but a larger share of time to teacher collaboration, on-site professional development, and research on the effectiveness of teaching strategies. Japan, for example, devotes about 40 per cent of teachers’ working time to these types of activities, while Ontario currently devotes 30 per cent (Darling-Hammond and Rothman, 2011).

The LDB and other regulations define the tasks teachers are expected to carry out in schools at the national level, but the way in which those activities are carried out and monitored depends on the local and state level systems. In this sense, the LDB recognizes the variety of teacher tasks in addition to teaching, including: curriculum design, grading assessments, collaborating on the school plan, as well as participating in school evaluations and professional development. Only recently, national legislation officially established that 30 per cent of teachers’ work hours should be devoted to these activities, as enacted in the Teacher Wages Law approved in 2008. However, an important task related to the quality of teaching, such as mentoring or supporting other teachers, is not formally required in Brazil (Table 1).

Table 1. Teachers’ official school improvement tasks

	Mentor peers	Collaborate on school plan	Design the curriculum	Participate in school evaluations
Brazil		✓	✓	✓
Paraguay		✓		✓
Jamaica		✓		✓
Japan	✓	✓	✓	✓
Singapore	✓	✓	✓	✓

Source: SABER-Teachers database

Implementation

It is expected that new national curricular standards, which are still under debate in the country, will clarify

what students should learn and be able to do after completing each school year. They should also decrease inequalities among states and municipalities in terms of student opportunities to learn, given that not all states and municipalities have established their own standards. Studies have suggested that poorer and less developed states and municipalities have less technical capacity to develop well-designed standards, which only increases inequalities in the coverage of the curriculum among students from different regions (CENPEC, 2015; FCC, 2015).

Law No. 11738/2008 mandates that 32.5 per cent of teachers' working hours should be devoted to activities outside the classrooms. However, given the lack of financial resources, many states and municipalities have not fully implemented this law, as more teachers would have to be hired in order to have all teachers devoting one-third of their work time to plan classes and work collaboratively outside of the classroom.

Goal 2: Attracting the best into teaching

Emerging ●●○○

The structure and characteristics of a teaching career make it more or less attractive to talented individuals. They may be more inclined to become teachers if they see that entry requirements are on par with those of well-regarded professions in which compensation and working conditions are adequate, and attractive professional development opportunities exist.

SABER-Teachers considers four policy levers that school systems can use to reach Goal 2: (1) requirements for entering the teaching profession; (2) competitive pay; (3) appealing working conditions; and (4) attractive career opportunities.

Policy

(1) Primary and secondary school teachers are trained at higher education institutions in Brazil. There are multiple paths to becoming a teacher. The level of required education for teachers may indicate the attractiveness of the profession. While not the only way to communicate an attractive profession, it does serve as one of the indicators: education systems where teacher positions are competitive often have rigorous entry requirements. Systems where entry to the profession is most demanding require a research-oriented bachelor's or master's degree.

Brazilian primary school teachers are required to have an ISCED 5B level, while secondary school teachers are required to have an ISCED A level to enter the teaching profession, along with a minimum amount of practical and professional experience throughout their professional training, and the approval of a written test. Brazil has an alternative model in place, which means that aspiring teachers who have already acquired degrees in relevant fields can become certified by taking a course that focuses on teacher practices and pedagogy instead of content knowledge.

(2) Although teachers' salaries in Brazil have increased, they are still lower than other professions with the same level of qualification. As mentioned earlier, Law No. 11738/2008 approved in 2008 mandated a minimum wage for teachers, which represents a significant and equitable raise in salary among teachers in Brazil. Since then, important annual increases in this minimum wage have impacted teachers' salaries in Brazil. Also, the National Plan for Education established that the average salary of teachers should be equivalent to the average salary of other professionals with university level degrees in Brazil by 2024.

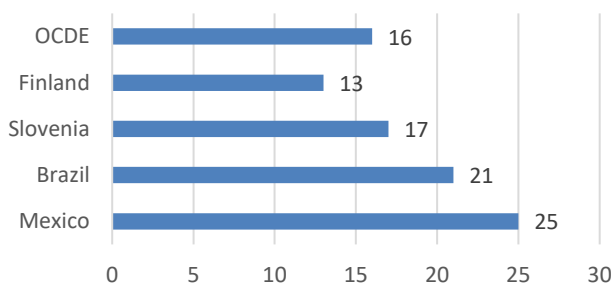
(3) By policy, working conditions in Brazil may not be appealing enough to attract talented teachers. Working conditions can play an important role in the decision to become a teacher. Talented candidates who have opportunities in other professions may be discouraged from becoming teachers if working conditions are unpleasant, unreliable or unsafe. SABER-Teachers measures working conditions through pupil-teacher ratios to monitor overcrowding and compliance with infrastructure requirements.

The 'minimum quality school standards' legislation established the importance of school infrastructure standards in providing students with an effective learning experience. In addition, the National Education Plan, approved in 2014, determined the development and implementation of 'minimum standards of quality' for all Brazilian schools (CAQi). However, the implementation of this policy is still pending, and therefore there is still no data on what percentage of schools comply with the minimum quality standards. On the other hand, Brazil did establish a mandatory annual minimum per pupil expenditure, which was calculated not on the basis of the estimated resources necessary to achieve a quality education but rather on the funds available in a given

year. This inequity may result in inequalities among Brazilian schools.

Additionally, according to the Education Statistics Portal of the World Bank, there are 21 students per primary school teacher and 16 students per secondary school teacher in Brazil. These student-teacher ratios are in line with practices in high-performing systems. SABER-Teachers stipulates that teacher-student ratios of 30 and 20 students at the primary and secondary school levels respectively may be adequate (Vegas et al, 2012).

Figure 2. Student-teacher ratios, primary school



Source: World Bank EdStats 2015

(4) There are career opportunities in Brazil to progress in the teaching profession. Teachers in most education systems have the opportunity to be promoted to the position of principal at some point in their careers. In addition to these ‘vertical’ promotions, most high-performing education systems also offer ‘horizontal’ promotions to academic positions that allow teachers to grow professionally yet remain closely connected to instruction instead of moving to managerial positions (OECD, 2012; Darling-Hammond, 2010). In Brazil, there are opportunities for both vertical and horizontal positions. They can also apply for both administrative and academic posts. However, these opportunities are not linked to performance. Usually, promotions tend to be for positions outside of the classroom.

Implementation

In Brazil, implementation challenges still exist when attempting to attract qualified candidates to the teaching profession. For example, according to TALIS 2013, the minimum starting salary per annum for teachers in Brazil (US\$11,919) is about one-third of the OECD average, which corresponds to US\$31,192 in lower secondary education (OECD, 2015). Another study by the National Council for Economic and Social Development (CNPES, 2014) shows that, despite the approval of Law No. 11738/2008, Brazilian teachers still make almost 50 per cent less than other professionals with higher education degrees.

Moreover, inequalities within the country combined with the decentralized nature of its educational system make it difficult for every state and municipality to comply with the teacher minimum wage law and/or allow teachers to spend 30 per cent of their work time in different tasks outside the classroom. In this sense, salaries could still be improved to attract the most qualified candidates to the teaching profession.

Although the education law requires basic education teachers to have a university diploma, 25 per cent of teachers in the workforce have still not attained that level of education (OECD, 2015). Furthermore, almost 50 per cent of those with higher education do not hold a degree in the subject they teach. This may be partly caused by the difficulties that state and local governments face when hiring teachers to teach critical shortage subjects.

In addition, only about 40 per cent of teachers in Brazil reported being employed full time, compared to the TALIS average of 82 per cent. Moreover, fewer teachers in Brazil (69.7 per cent, compared with the TALIS average of 77.4 per cent) consider that the teaching profession is valued in society and that they would work as teachers if they could decide again (OECD, 2015).

Goal 3: Preparing teachers with useful training and experience

Established ●●●○

It is crucial to equip teachers with the skills they need to succeed in the classroom. Success requires subject matter and pedagogic knowledge, as well as classroom management skills and a great deal of teaching practice. Good preparation puts all teachers on an equal footing, giving them a common framework for improving their instructional practice.

SABER-Teachers considers two policy levers that school systems can use to reach Goal 3: (1) minimum standards for pre-service training programmes; and (2) required levels of classroom experience for all teachers.

Policy

(1) Initial teacher education requirements in Brazil are similar to those of the most successful education systems. However, the low quality of most of the programmes in Brazil hinders teacher preparation. Virtually all high-performing countries require that teachers have the educational equivalent of ISCED 5A

(a research-oriented bachelor’s degree). Certain systems, such as in Finland, also require a research-based master’s degree (OECD, 2011).

In Brazil, the National Education Plan establishes that all teachers should have subject-knowledge training at a higher education level and that 50 per cent of the teachers should receive training at the graduate level. In addition, the 2015 Standards for Pre-service and In-service Teacher Education increased the length of programmes from 3 to 4 years and the time devoted to practical training in schools, as well as a set of general principles for the design of teacher initial education programmes. This new legislation also established the knowledge and skills to be developed by the curriculum of teacher training institutions (CNE, 2015).

(2) In Brazil, new teachers are required to have a limited amount of practical classroom experience before entering the profession. Practical experience is a critical factor in the preparedness of teachers entering the profession. The more teachers are able to try out their pedagogical theories, subject-matter knowledge and classroom management skills, the better prepared they are for their careers. Most high-performing systems require teacher entrants to have considerable classroom experience before becoming independent teachers; some of these systems also provide mentoring and support during teachers’ first and even second year on the job (Darling-Hammond, 2010; Ingersoll, 2007).

In Brazil, teacher candidates are required to have practical classroom experience during their initial education. The most recent law raised the minimum number of years and hours of teacher preparation to 3,200 hours or 4 years. According to this new law practical classroom experience should represent 400 hours or 12.5 per cent of the curriculum (Dourado, 2015). Conversely, federal laws do not mandate induction or mentoring programmes. This means that – by national policy – novice teachers have little previous classroom experience and support once they enter the teaching profession.

Table 2. Required classroom experience, primary teachers

	3 months or less	12 months or less	12-24 months	more than 24 months
Brazil		✓		
Paraguay		✓		

Singapore			✓	
Japan				✓

Source: SABER-Teachers database

Implementation

Although policies require that initial training programmes provide classroom experience, the quality of this experience and, most importantly, how it intersects with the programme curriculum, may vary.

The Brazilian federal government has created incentives to make higher education institutions comply with this policy. For example, the Institutional Program for Scholarships for Initiation in Teaching (PIBID – for its acronym in Portuguese) is a federal government scholarship for undergraduate students enrolled at teacher education programmes to help them participate in public school projects that involves teaching in order to develop their pedagogical skills.

However, despite this initiative, monitoring and regulation of pre-service training, especially in teacher education, representing almost 30 per cent of higher education programmes in the country, is rather weak in Brazil (Louzano et al., 2010).

Goal 4: Matching teachers’ skills with students’ needs

Emerging ●●○○

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

SABER-Teachers considers two policy levers that school systems can use to reach Goal 4: (1) incentives for teachers to work in hard-to-staff schools; and (2) incentives for teachers to teach subjects in which there is a critical shortage of instructors.

Policy

(1) In Brazil, some states and municipalities have mechanisms to address teacher shortages in hard-to-

staff schools, but there is no national policy regarding this issue. Attracting effective teachers to schools that are in disadvantaged locations or serve underprivileged populations is a challenge for many countries and often requires a specific set of incentives.

Although in Brazil there is no national policy regarding incentives to address the shortage of teachers in hard-to-staff schools, several states and municipalities do have such policies within their own school systems. Incentives to attract teachers to hard-to-staff schools include monetary compensation, transportation and housing support.

Table 3. Incentives for teachers to teach in hard-to-staff schools

	Promotion	Higher basic salary in hard-to-staff schools	Monetary bonus	Subsidized education	Housing support
Brazil			✓		✓
Paraguay					
Jamaica					
Japan		✓	✓		✓
Singapore					

Source: SABER-Teachers database

(2) While Brazil recognizes shortages of teachers for certain subjects, such as physics, mathematics and chemistry, there are no incentives to attract new teachers or retain them successfully to teach those subjects. Most education systems have at least some subjects for which there is a critical shortage of teachers, that is, too few teachers to meet students’ needs. Successful systems develop policies and incentives that encourage teachers to teach these subjects. Monetary bonuses, scholarships and career opportunities are all examples of such incentives.

Brazil has a shortage of 170,000 mathematics, physics and chemistry teachers. This represents almost 10 per cent of all Brazilian teachers (Saldaña, 2014), yet research shows that the country trains enough teachers – physics being an exception. However, many of the potential teachers do not complete their programme or eventually decide not to work as teachers, especially among those adequately trained to teach these critical subjects (Pinto, 2014). In spite of this situation, there is no policy at the national or local level to retain these teachers.

Implementation

Although there are incentives to address the shortage of teachers in hard-to-staff schools in several states and municipalities in Brazil, those incentives are not good enough to compensate for the challenges involved in teaching in these schools. Consequently, the shortage problem persists despite the policy.

In addition, given labour market regulations, there are no special incentives for teachers who teach mathematics, physics and chemistry, making it doubly difficult to attract and retain qualified teachers in the profession. Usually, graduates of these subjects have better salaries outside teaching, and it is likely that they will not return to the classroom.

Goal 5: Leading teachers with strong principals

Latent ●○○○

The quality of school heads is an important predictor of student learning. Capable principals act as instructional leaders, providing direction and support to teachers in order to improve 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 Goal 5: (1) investment by the education system in developing qualified school leaders; and (2) the decision-making authority given to school principals to support and improve instructional practice.

Policy

(1) There are no training or professional development requirements for principals in Brazil. Research from high-performing education systems suggests that principals can develop leadership skills through supported work experience or specific training courses. For example, the systems of Japan, South Korea, Shanghai (China) and Singapore all require that applicants for principal positions participate in specific coursework and/or a specialized internship or mentoring programme designed to develop essential leadership skills (OECD, 2012; Darling-Hammond, 2010) (Table 4).

A principal’s selection criteria and process vary across states and municipalities. Nearly half of state education systems select their principals through an election process, while in the other half, teachers and

communities select principals out of a list of potential candidates among school staff (Lück, 2011). In both cases, requirements usually include a higher education teaching degree and a specific number of years of professional teaching experience.

No national policy to evaluate a school principal’s performance exists in Brazil. Similarly, no compulsory training mechanisms are in place at the national level to ensure that principals develop the necessary skills to act as instructional leaders. However, the federal government did recently launch the National Program for Training and Certification of School Principals in partnership with higher education institutions. Although participation in this programme is not compulsory, it does offer principals the opportunity to develop the necessary skills to succeed in their job (Ministry of Education, 2015).

Table 4. Requirements to become a principal

	Specific Coursework	Internship	Mentoring programme
Brazil	✓		
Paraguay			
Japan	✓	✓	✓
Singapore	✓	✓	✓

Source: SABER-Teachers database

(2) Brazilian principals have limited decision-making authority. Once education systems have qualified principals in place, they need to focus on improving classroom instruction (Barber and Mourshed, 2007). High-performing education systems such as those in Finland, Ontario (Canada) and Singapore consider their principals to be instructional leaders. They are expected to be knowledgeable in teaching and curriculum matters, as well as provide guidance and support to teachers. Principals in these systems evaluate teachers, provide feedback, assess their school’s needs for professional development, and direct instructional resources where they are most needed (Darling-Hammond and Rothman, 2011).

In Brazil, responsibilities of public school principals include evaluating teacher performance, managing and overseeing the school's budget, managing the distribution of time during school hours, managing the school lunch programme, responding to requests from state and municipal education authorities,

representing the school at meetings and in the community, and monitoring teachers’ attendance. Nevertheless, principals in Brazil do not act as pedagogical leaders. By policy, they are not responsible for providing guidance to teachers on how to deliver the curriculum and/or any other related teaching tasks.

Implementation

Despite no existing official training requirements for principals, many state and municipal systems try to train their principals through different types of professional development. In fact, the National Education Plan established the need for developing more programmes to effectively prepare principals and school leaders. In addition, the newly created National Program for Training and Certification of School Principals will aim to develop national standards for school principals and a certification programme for school leaders in order to guide state and municipal governments in their selection of principals (Ministry of Education, 2015). However, this policy has yet to be implemented in the country.

In terms of principal duties, a recent national survey showed that principals spend most of their time in administrative tasks rather than providing pedagogical support to teachers and students (IPM, 2009). This may be related to the fact that principals are not obliged by policy to perform as instructional leaders to help teachers improve their teaching.

Goal 6: Monitoring teaching and learning

Latent ●○○○

It is essential to assess how well teachers are teaching and whether students are learning in order to devise strategies to improve both processes. First, education systems must identify poorly performing teachers and students before they can provide struggling classrooms with the adequate support they need. Second, teacher and student evaluations help identify good practices, which can be shared across the system to help improve school performance.

SABER-Teachers considers three policy levers that school systems can use to reach Goal 6: (1) availability of data on student achievement; (2) adequate systems for monitoring teacher performance; and (3) multiple mechanisms for evaluating teacher performance.

Policy

(1) Brazil has a low-stakes national student learning assessment to measure students’ achievement and

evaluate school quality. All high-performing education systems monitor student performance to inform teaching and teacher policies, but they do so in very different ways. They may conduct large-scale system-wide assessments, student evaluations (by teachers), or employ other standardized student learning methods. Regardless of the mechanisms they use, high-performing systems ensure that three main functions are fulfilled:

1. The education system collects complete and relevant student achievement data on a regular basis.
2. Public authorities have access to these data and use them to inform policy-making.
3. A feedback mechanism shares these data and relevant analyses at the school level, which is then used by teachers to improve their instructional practice.

In Brazil, the National Assessment of Basic Education (SAEB – for its Portuguese acronym) tests 3rd, 5th, 9th, and 12th grade students for public and private schools in Brazil. Results from students’ language and mathematics scores, combined with retention rates, compose a school quality indicator called the Basic Education Development Index (IDEB – for its Portuguese acronym). School results are made public, but there is no federal policy indicating how data should be used by local systems. Besides national learning assessment systems, most states and several municipalities organize their own evaluation systems, and may link the results of student achievement tests to merit pay (Sousa and Oliveira, 2010; Ovando and Freitas, 2011). Brazil also has a long-standing participation in both PISA (OECD) and LLECE (UNESCO Latin American Laboratory for Assessment of the Quality of Education). Their participation allows Brazil to compare its performance and progress with other nations.

(2) In Brazil, there is no system to monitor teacher’s performance. The Ministry of Education tried to apply an assessment to evaluate and certify teachers (*Prova Docente*), but the attempt was discontinued owing to political difficulties with its implementation. However, the National Education Plan (2014–2024) establishes a strategy to evaluate entry-level professionals. This strategy can be followed by states and municipalities, and it consists of assembling a team of experienced professionals who, in turn, supervise teachers to decide whether to offer them tenure after the probationary period. This strategy does not take into account how to align evaluation results with

professional development opportunities for novel teachers. This could be particularly useful to identify teachers’ weaknesses in both subject knowledge and pedagogical methods, and thus to offer them training based on what works to improve student learning outcomes.

(3) There are no centralized criteria established to evaluate teachers’ performance in Brazil. Most high-performing systems conduct teacher evaluations using multiple data collection mechanisms and varied assessment criteria (Table 5). Ideally, a comprehensive teacher evaluation framework combines student results, teacher portfolios, classroom observations, and student/parent feedback. International experience and research both indicate that none of these approaches taken separately produce a balanced and objective evaluation of teacher performance.

Some state and municipal systems evaluate teachers based solely on the results of student learning assessments. Often, even teacher salaries relate to test scores and other school performance indicators. However, performance measures, such as teaching methods, classroom observations or teacher portfolio, are not used. This poses a challenge to Brazil given that research suggests that no single method of evaluating teacher performance is fail-safe.

Table 5. Criteria for evaluating teacher performance

	Subject matter knowledge	Teaching methods	Student assessment methods	Students’ academic achievement
Brazil				✓
Jamaica	✓	✓	✓	✓
Japan	✓	✓	✓	
Singapore	✓	✓	✓	

Source: SABER-Teachers database

Implementation

Although student assessment is a well-established policy, Brazil lacks a comprehensive model to evaluate teacher performance. Given the potential tension over this issue, it is not currently in the policy agenda.

For almost two decades, SAEB has been the most important tool to monitor students’ achievement in the country (INEP, 1994). In 2007, students’ test scores were incorporated into the school quality index, IDEB

(Fernandes, 2007). Since then, external assessments are influencing several other policies, such as curriculum and professional development, both at local and federal levels (Bonamino and Sousa, 2012).

Goal 7: Supporting teachers to improve instruction

Latent ●○○○

Support systems help improve instruction at the school level. In order to continually improve their practices, teachers and schools need to be able to analyse the specific challenges they face in classroom teaching, to access information on best practices for addressing these challenges, and to receive specific external support tailored to their needs.

SABER-Teachers considers three policy levers that school systems can use to reach Goal 7: (1) opportunities for teacher professional development; (2) collaborative professional development that focuses on improving instruction; and (3) assignment of professional development training on the basis of perceived need.

Policy

(1) State and municipal schools in Brazil usually require teachers to participate in professional development as part of their official duties. However, the required time spent on these programmes varies due to the decentralized nature of the Brazilian education system. At the national level, Brazil has set new goals and targets to improve teaching quality under the National Education Plan (2014–24). Among the initiatives are the establishment of a career plan, including professional development activities to be implemented by states and municipalities.

(2) Professional development policies in Brazil do not follow the most effective methods of professional development. Research suggests that effective teacher professional development is collaborative and provides opportunities for in-school analysis of instructional practice. As mentioned earlier, high-performing education systems such as those of Japan and the city of Ontario (Canada) devote as much as 30 per cent of teachers’ school time to professional development and instructional improvement activities. These activities include observation visits to other schools and participation in teacher or school networks, as well as engaging in research, mentoring and coaching.

In Brazil, by policy, professional development at the national level does not mandate states or municipalities to include these activities, although some of them have decided to do so (Table 6). Furthermore, the Ministry of Education develops professional development programmes and can partially finance training of municipal and state staff members who are then in charge of implementing the programmes at the state and municipal levels themselves. This is the case of the National Literacy Program (PNAIC – for its acronym in Portuguese), which is a literacy programme to train teachers from Grades 1-3 that was launched in 2014 and implemented nationally.

Table 6. Types of teacher professional development

	Observation visits	Teacher networks	School networks	Research	Mentoring/ coaching
Brazil				✓	
Paraguay					
Jamaica	✓	✓	✓	✓	✓
Japan	✓	✓	✓	✓	✓
Singapore	✓	✓	✓		✓

Source: SABER-Teachers database

(3) Teacher professional development is not assigned based on the perceived need nor linked to teacher evaluation. Given the size of the teacher workforce and the centralized nature of professional development in Brazil – usually organized at federal, state and municipal level rather than at the school level – its activities are usually thought as one-size-fits-all, leading to a disconnect between the needs of the teachers and the professional development provided.

Implementation

Brazilian teachers reported high participation on professional development – higher than the average for OECD countries participating in TALIS 2013 (OECD, 2013). According to the 2013 TALIS Survey, 90 per cent of teachers in Brazil reported participating in some professional development activity in the previous 12 months. This figure is higher than the TALIS average of 87.7 per cent. However, a higher proportion of teachers in Brazil (14.7 per cent) compared to the TALIS average (5.7 per cent) undertook professional development without any type of support, such as financial support or time compensation (OECD, 2015). In addition, according to the 2013 TALIS survey, teachers in Brazil tend to report higher participation

rates in professional development activities than the TALIS average, including individual or collaborative research (47 per cent), in-service training in outside organizations (38 per cent), and taking part in a qualification programme (37 per cent). On the other hand, teachers in Brazil tend to report lower than average participation rates for activities such as workshops (66 per cent), observation visits to other schools (12 per cent), and participation in teachers' networks (26 per cent) (OECD, 2013). This is due to the fact that, following the approval of the teacher minimum wage law in 2008, which established that teachers spend 30 per cent of their work time in different tasks outside the classroom, many states and municipalities allocate this time to professional development activities.

In addition, in some states and municipal systems, professional development activities are linked to progression in teacher salaries regardless of the relevance of the activity for the teacher. For example, Brazil was the country in TALIS 2013 whose teachers reported spending more time keeping order in the classroom (20 per cent of their time compared with 13 per cent on average in TALIS countries). Therefore, in Brazil, less than 70 per cent of lesson time is spent on actual teaching and learning (OECD, 2013). Although this is clearly a problem in Brazilian schools, few professional development programmes tackle the issue of classroom management, since it is not perceived by policy-makers as an important problem. Policy efforts through the National Education Plan reinforces higher levels of qualifications (e.g. graduate programmes such as master degrees) as a solution for improving teaching in Brazil instead of a professional development model based on the school and focused on teachers' needs. Furthermore, the types of activities teachers in Brazil are involved in during their professional development are not aligned with the current research on the kind of professional development activities that work to improve student learning. Also, the fact that teacher evaluation results are not aligned with professional development makes it difficult to tailor training and support to individual teacher needs.

Goal 8: Motivating teachers to perform

Latent ●○○○

Mechanisms that adequately motivate teachers enable school systems to signal their seriousness in achieving education goals, making a teaching career attractive to competent individuals, and rewarding good performance while ensuring accountability.

SABER-Teachers considers three policy levers that school systems can use to reach Goal 8: (1) linking career opportunities to teacher performance; (2) mechanisms that hold teachers accountable; and (3) performance-based compensation.

Policy

(1) Promotion opportunities and hiring decisions are not officially linked to teachers' performance outcomes. To ensure teachers are capable before granting them long-term contracts, authorities need both a probation period upon initial hires and the right not to offer long-term contracts to teachers who do not perform during the probation period. In Brazil, there is a mandatory probation period for teachers before they are granted open-ended appointments, and official policy stipulates that job performance should be factored into the decision in terms of offering teacher candidates an appointment. However, by policy, promotion opportunities are not linked with teacher performance but rather with seniority and level of qualifications.

(2) Minimal expectations of teacher performance are in place. Requiring teachers to meet certain standards in order to remain in the profession can facilitate the removal of ineffective and/or errant teachers. SABER-Teachers measures whether teachers may be dismissed for misconduct, child abuse, absenteeism and poor performance. In Brazil, primary and secondary school teachers can be dismissed for these reasons. However, they cannot be dismissed for poor performance since there are no national standards of teacher performance in place.

(3) By national policy, teacher compensation is not linked with teacher performance at the school level. To align teacher incentives, the most effective systems at motivating teachers are those that provide incentives to perform well (e.g. performance bonuses). In Brazil, performance reviews do not inform promotions or carry salary implications. Some states and municipalities are linking average school performance on students' standardized tests to monetary bonuses, however, this is not a national policy.

Implementation

There are only a few states and municipalities in Brazil that have implemented accountability or merit pay systems for teachers. However, they have faced challenges with policy design and indicators selection,

as well as with implementation. These shortcomings have led to mixed results (Brooke, 2008; Koslinski, 2014).

At the national level, the need to ‘value teacher, staff and principal’s merit’ (CDES, 2014) is among the many strategies required to raise the quality of education in Brazil over the next 10 years. However, this piece of legislation has received strong opposition. Thus, given the decentralized nature of the Brazilian education system, the degree in which this policy will be implemented depends on the vision of school improvement of each municipal and state leader, and how it intersects with accountability measures.

Aligned with the many initiatives that tie student performance with teacher compensation, the National Education Plan approved the development of policies to hold schools accountable for their performance in IDEB (Quality Index of Educational Development based on students’ test score). However, the implementation of this policy is still pending.

Policy Implications

This SABER country report has offered a snapshot of Brazil's key teacher policies and how they compare with those of top global performers in education. This section presents some policy implications to further improve the teacher policy framework. These recommended measures are derived from the above analysis and interviews conducted in Brazil. Policy suggestions are provided only for the priority areas where level of performance is below 'established'.

Attracting the best into teaching (Goal 2)

In order to attract talented individuals to teaching, Brazilian policies should focus on raising the requirements to enter the profession, as well as in improving compensation, working conditions, and opportunities for teachers. More specifically, policy recommendations include:

- Strengthen the requirements to enter the teaching profession by regulating the expansion of teacher education programmes to potentially increase the quality of teaching programmes. This will also contribute towards improving the performance and effectiveness of new teachers.
- Implement the 'minimum standards of quality' (CAQi), as stated in law, to improve teachers' working conditions. This will prevent future talented candidates from disregarding the teaching profession as an attractive career opportunity.
- Ensure competitive salaries and a career path that values the efforts and abilities shown by teachers in the classroom. Enforce the National Education Plan, which mandates that the average salary of teachers should be equivalent to the average salary of other professionals in Brazil with university level degrees by 2024.

Matching teachers' skills with students' needs (Goal 4)

To establish an equitable and efficient education system, teachers should work in schools where their skills are most needed. Also, the shortage of qualified teachers should be avoided to ensure that all students have an equal opportunity to learn. More specifically, policy recommendations include:

- Identify hard-to-staff schools, monitor the overall supply of teachers in such schools, and provide incentives for teachers who enter and

remain in those schools. This could be done through School Census data that is already available.

- Create a national policy to address teacher shortages in hard-to-staff schools and provide technical and financial support to states and municipalities that lack the capacity to attract and hire effective teachers for all subjects.
- Define a national policy to address shortages of teachers who teach physics, mathematics and chemistry, among other critical subjects. Incentives targeting specific teachers could prevent shortages of qualified teachers in these subjects.

Leading teachers with strong principals (Goal 5)

Increasing the quality of school principals and developing their instructional leadership is key to improving instructional practice at the school level, and to attract and retain competent teachers. Policy recommendations include:

- Ensure that the core responsibility of principals is to provide professional development opportunities for teachers and improvements in the school. Standards of practice and performance evaluations that are focused on instructional leadership should be developed.
- Offer principals an array of professional development programmes and make participation obligatory. These opportunities may include mentorship programmes, instructional leadership training and on-going professional development.

Monitoring teaching and learning (Goal 6)

- Assessing how well teachers perform and whether students are learning is key to devising strategies to improve both processes. Brazil should create a system to monitor teacher performance. This system can be based upon teaching practices that are known to increase student learning, as well as student outcomes, such as IDEB. The system should identify good practices to be shared across the system so as to improve school performance as a whole.
- Create national teacher professional standards to guide the evaluation of teacher performance and professional development.

Supporting teachers to improve instruction (Goal 7)

- Establish support systems to help improve instruction at the school level. Brazil should organize professional development programmes based on research findings on effective professional development practices to provide the necessary support. Money allocated to professional development should be spent on effective and evidence-based programmes.
- Emphasize collaborative activities in professional development. These activities should focus on improving instruction, such as observation visits to other schools, participation in teacher or school networks, and engagement in research, mentoring and coaching.
- Assign teacher professional development based on teachers' perceived needs. This would guarantee a more practical approach to professional development.

Motivating teachers to perform (Goal 8)

Rewarding effective teacher performance is important to improve education quality. Recommendations to this end may include:

- Establish performance standards for teachers. This would help state and municipal systems monitor the quality of their teaching force and provide incentives and opportunities when necessary.
- Link incentives such as career progress, salaries and further work opportunities with teacher performance in teaching evaluations. This will ultimately make the teaching career more attractive for talented candidates, and will contribute towards motivating effective teachers to remain in the profession.

Acknowledgements

This research, data, and report were prepared by Paula Louzano (Visiting Scholar at Stanford University) and Barbara Born (Stanford University) under the supervision of Edem Adubra (Head of the International Task Force on Teachers, UNESCO), Fatou Niang (Education Specialist, UNESCO) and Hiromichi Katayama (Education Specialist, UNESCO). The methodology, research and editing were supported by Andrew Trembley (Consultant, Education Global Practice, World Bank) and Katherina Hruskovec (Education Consultant, UNESCO and World Bank) under the supervision of Ezequiel Molina (Task Team Leader, SABER-Teachers, World Bank) and Iva Trako (Junior Professional Officer, Education Global Practice, World Bank).

References

- Attfield, R. 2011. Development of Accreditation for School Directions: Discussion Paper. Education Unit, Human Development Network. Washington, DC: World Bank.
- Barber, M. and Mourshed, M. 2007. *How the World's Best-Performing School Systems Come Out on Top*. London: McKinsey & Company.
- Barretto, Elba Siqueira de Sá. 2015. Políticas de formação docente para a educação básica no Brasil: embates contemporâneos. [Teacher Training Policies in Brazil: contemporary challenges]. *Revista Brasileira de Educação*. Vol. 20, No. 62, pp. 679–700. (In Portuguese.)
- Bonamino, A. and Sousa, S. 2012. Três gerações de avaliação da educação básica no Brasil: interfaces com o currículo da/na escola [Three generations of evaluation of basic education in Brazil: interfaces with the school curriculum]. *Educação e Pesquisa, São Paulo*. Vol. 38, No. 2, pp. 373–388. (In Portuguese.)
- Brooke, N. 2008. Responsabilização Educacional no Brasil [Educational Responsibility in Brazil]. *Revista Iberoamericana de Evaluación Educativa*. Vol. 1, No. 1, pp. 93–109.
- Bruns, B. and Luque, J. 2015. *Great Teachers. How To Raise Student Learning In Latin America And The Caribbean*. Washington, DC: World Bank.
- Camargo, R.B., Minhoto, M.A.P. and Jacomini, M. A. 2014. Carreira e remuneração do magistério no município de São Paulo: análise legislativa em perspectiva histórica [Career and remuneration of teachers in the city of São Paulo: legislative analysis in historical perspective]. *Educação e Sociedade*. Vol. 35, No. 126, pp. 215–35. (In Portuguese.)
- Campante, F. and Glaeser, E.L. 2009. *Yet Another Tale of Two Cities: Buenos Aires and Chicago*. NBER Working Paper No. 15104. Cambridge, MA: National Bureau of Economic Research.
- Conselho de Desenvolvimento Econômico e Social (CDES). 2014. *As desigualdades na escolarização no Brasil*. Relatório de Observação n. 05 [The inequalities in schooling in Brazil. Observation Report No.5]. Brasília: Conselho de Desenvolvimento Econômico e Social. (In Portuguese.)
- CENPEC. 2015. Currículos para os anos finais do Ensino Fundamental: concepções, modos de implantação e usos. Relatório Final. [Curricula for the final years of Elementary School: conceptions, modes of implementation and uses. Final Report]. São Paulo, SP: Centro de Estudos e Pesquisas em Educação, Cultura e Ação Comunitária. (In Portuguese.)
- Chaudhury, N., Hammer, J. Kremer, M. Muralidharan, K. and Rogers, F.H. 2006. Missing in Action: Teacher and Health Worker Absence in Developing Countries. *Journal of Economic Perspectives*. Vol. 20, No. 1, pp. 91–116.
- CNE. 2015. *Define as Diretrizes Curriculares Nacionais para a formação inicial em nível superior (cursos de licenciatura, cursos de formação pedagógica para graduados e cursos de segunda licenciatura) e para a formação continuada*. Resolução CNE/CP n. 02/2015, de 1º de julho de 2015. [Defines the National Curricular Guidelines for initial training at higher level (undergraduate courses, pedagogical training courses for graduates and second degree courses) and for continuing education. Resolution. Brasília, Diário Oficial [da] República Federativa do Brasil, seção 1, n. 124, p. 8-12, 02 de julho de 2015. (In Portuguese.)
- Darling-Hammond, L. 2010. Steady Work: How Countries Build Successful Systems. In: *The Flat World and Education: How America's Commitment to Equity Will Determine Our Future*. New York, NY: Teachers College, Columbia University, pp. 163–93.
- Darling-Hammond, L. and Rothman, R. (eds). 2011. *Teacher and Leader Effectiveness in High-Performing Education Systems*. Washington, DC: Alliance for Excellent Education and Stanford, CA: Center for Opportunity Policy in Education.

- Dourado, L. F. 2015. Diretrizes Curriculares Nacionais para a Formação Inicial e Continuada dos Profissionais do Magistério da Educação Básica: Concepções e Desafios [National Curricular Guidelines for the Initial and Continued Training of Professionals in the Teaching of Basic Education: Conceptions and Challenges. *Educação e Sociedade*. Vol. 36, No. 131, pp. 299–324. (In Portuguese.)
- Fernandes, R. 2007. *Índice de Desenvolvimento da Educação Básica (IDEB)* [Basic Education Development Index]. Brasília, Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP). Série Documental, textos para discussão, 26. (In Portuguese.)
- Fundação Carlos Chagas. 2015. Ensino Médio: Políticas Curriculares dos Estados Brasileiros. Relatório Final. [High School: Curricular Policies of the Brazilian States. Final report]. São Paulo, SP.
- Habyarimana, J. 2007. *Characterizing Teacher Absence in Bulgaria: Evidence from 2006 Unit Cost Study*. Education Unit, Human Development Network, Washington, DC: World Bank.
- Hanushek, E. A. and Rivkin, S.G. 2010. Generalizations about Using Value-Added Measures of Teacher Quality. *American Economic Review*. Vol. 100, No. 2, pp. 267–71.
- Hanushek, E. and Woessmann, L. 2007. Education Quality and Economic Growth. *World Bank Policy Research Paper No. 4122*. Washington, DC: World Bank.
- . 2009. Schooling, Cognitive Skills, and the Latin American Growth Puzzle. *NBER Working Paper 15066*. Cambridge, MA: National Bureau of Economic Research.
- Herrmann, M.A. and Rockoff, J.E. 2009. *Work Disruption, Worker Health, and Productivity: Evidence from Teaching*. New York, NY: Columbia Business School.
- INEP. 1994. *Sistema Nacional de Avaliação da Educação Básica: objetivos, diretrizes, produtos e resultados*. [National System of Evaluation of Basic Education: objectives, guidelines, products and results]. Brasília, Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira/Coordenação de Avaliação Educacional. (In Portuguese.)
- Instituto de Pesquisas Municipais (IPM). 2009. <http://www.ipmbrasil.org.br/publicacoes-municipais>
- Ingersoll, R (ed.) 2007. *A Comparative Study of Teacher Preparation and Qualifications in Six Nations*. Philadelphia, PA: Consortium for Policy Research on Education.
- Koslinski, M. et al. 2014. Accountability Escolar: Um Estudo Exploratório do Perfil das Escolas Premiadas [School Accountability: An Exploratory Study of the Profile of Awarded Schools]. *Estudos Avaliação Educacional*. Vol. 25, No. 59, pp. 108-137. (In Portuguese.)
- Levin, B. 2008 *How to Change 5000 Schools*. Cambridge, MA: Harvard Education Press.
- Louzano, P. et al. 2010. Quem quer ser professor? Atratividade, seleção e formação docente no Brasil [Who wants to be a teacher? Attraction, selection and teacher training in Brazil]. *Estudos em Avaliação Educacional*. Vol. 21, No. 47, pp. 543–68. (In Portuguese.)
- Lück, H. 2011. Mapeamento de práticas de seleção e capacitação de diretores escolares. Relatório Final [Mapping practices of selection and training of school principals. Final report]. Curitiba, Centro de Desenvolvimento Humano Aplicado and Fundação Victor Civita. (In Portuguese.) <http://www.fvc.org.br/pdf/livro2-03-mapeamento.pdf>
- Miller, R. T., Murnane, R.J. and Willett, J.B. 2008. Do Teacher Absences Impact Student Achievement? Longitudinal Evidence from One Urban School District. *Educational Evaluation and Policy Analysis*. Vol. 30, No. 2, pp. 181–200.
- Ministry of Education. 2015. Portaria n. 1 118, de 3 de dezembro de 2015. Institui o Programa Nacional de Formação e Certificação de Diretores Escolares e cria o Comitê Gestor do Programa [Establishes the National Program of Training and Certification for School Principals and creates the Committee of Program Management]. Diário Oficial da União (12/04/2015). Vol. 232, pp. 13–14.
- Mullis, I. V. S., Martin, M.O., Gonzalez, E.J. and Kennedy, A.M. 2001. *PIRLS [Progress in International Reading Literacy Study] International Report: IEA's Study of Reading Literacy Achievement in Primary School in 35 Countries*. Chestnut Hill, MA: International Association for the Evaluation of Educational Achievement (IEA).

http://timss.bc.edu/pirls2001i/pdf/P1_IR_Ch01.pdf

Nye, B., Konstantopoulos, S. and Hedges, L.V. 2004. How Large Are Teacher Effects? *Educational Evaluation and Policy Analysis*, Vol. 26, No. 3, pp. 237–57.

OECD. 2009. *PISA 2009 Results: What Students Know and Can Do. Student Performance in Reading Mathematics and Science*. Vol. 1. Paris: OECD Publishing.

<http://dx.doi.org/10.1787/9789264091450-en>

_____. 2011. *Building a High-Quality Teaching Profession: Lessons from around the World*. Paris: OECD Publishing.

_____. 2012. *Preparing Teachers and Developing School Leaders for the 21st Century*. Paris: OECD Publishing.

_____. 2013. *Key Findings from the Teaching and Learning International Survey (TALIS) – Brazil*. Paris: OECD Publishing.

_____. 2015. *Education Policy Outlook – Brazil*. Paris: OECD Publishing.

Ovando, N. and Freitas, D. N. T. 2011. As iniciativas de avaliação nas redes escolares municipais [Evaluation initiatives in municipal school networks]. In: Freitas, D.N.T. and Real, G.C.M. *Políticas e monitoramento da qualidade do ensino fundamental: cenários municipais* [Policies and monitoring of the quality of basic education: municipal scenarios]. Dourados, MT: Ed. UFGD. pp. 297–322. (In Portuguese.)

Park, A. and Hannum, E. 2001. Do Teachers Affect Learning in Developing Countries? Evidence from Matched Student-Teacher Data from China. Paper presented at the Rethinking Social Science Research on the Developing World in the 21st Century. Conference of the Social Science Research Council, Salt Lake City, UT.

Pinto, José Marcelino de Rezende. 2014. O que explica a falta de professores nas escolas brasileiras? [What explains the lack of teachers in Brazilian schools?] *Jornal de Políticas Educacionais*. Vol. 15, pp. 3–12. (In Portuguese.)

PREAL. 2009. Overcoming Inertia? A Report Card on Education in Brazil. Programa de Promoción de la Reforma Educativa en America Latina y el Caribe / Lemann Foundation.
http://pdf.usaid.gov/pdf_docs/PBAAC246.pdf

Presidência da República. 2009. Emenda Constitucional nº 59, de 11 de novembro de 2009. [Constitutional Amendment No. 59 of November 11, 2009] Brasília.

Presidência da República. 2014. *Plano Nacional de Educação* LEI Nº 13.005 [National Education Plan, Law No. 13.005]. Brasília, junho/2014.

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

Rabelo, A. O. 2010. A remuneração do professor é baixa ou alta? Uma contraposição de diferentes referenciais. *Educação em Revista*. Vol. 26, No.01, pp. 57–88.

Rivkin, S. G., E. A. Hanushek, and J. F. Kain. 2005. Teachers, Schools, and Student Achievement. *Econometrica*. Vol. 73, No. 2, pp. 417–58.

Rockoff, J. E. 2004. The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data. *American Economic Review*, Vol. 94, No. 2, pp. 247–52.

Rogers, F. H. and Vegas, E. 2009. No More Cutting Class? Reducing Teacher Absence and Providing Incentives for Performance. *Policy Research Working Paper 4847*. Educational Unit, Human Development Network. Washington, DC: World Bank.

Saldaña, P. 2014 Pesquisa mostra que não falta professor, mas interesse de seguir a carreira [Research shows that there is no shortage of teachers, but interest in pursuing a career]. *O Estado de S. Paulo*. (08/31/2014). (In Portuguese.)
<http://educacao.estadao.com.br/noticias/geral,pesquisa-mostra-que-nao-falta-professor-mas-interesse-de-seguir-a-carreira,1552687>

Sanders, W. L. and 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.

Soares Neto, J.J et al. 2013. Uma escala para medir a infraestrutura escolar. *Estudos em Avaliação Educacional*. Vol. 24, No. 54, pp. 79–99.

Sousa, S.S. and Oliveira, L.K.M. 2010. Sistemas estaduais de avaliação: uso dos resultados,

implicações e tendências. *Cadernos de Pesquisa*. Vol. 40, No. 141, pp. 793–822.

UNDIME. 2015. Nota Técnica da Undime sobre o PLS 114/2015. União Nacional dos Dirigentes Municipais de Educação [Undime Technical Note on PLS 114/2015. National Union of Municipal Education Officers]. (In Portuguese.) https://undime.org.br/uploads/documentos/phphAbsuR_5639e9aa9547e.pdf

Vegas, E., Loeb, S. Romaguera, P. Paglayan, A. Goldstein, N. Ganimian, A. Trembley, A. and Jaimovich, A. 2012 (updated). *What Matters Most in Teacher Policies? A Framework for Building a More Effective Teaching Profession*. SABER Report. Education Unit, Human Development Network. Washington, DC: World Bank.

World Bank. 2010. *Achieving World Class Education in Brazil: the next agenda*. Latin America and the Caribbean Office. Washington, DC: World Bank.

World Bank. 2016. *World Development Indicators*. Washington, DC: World Bank.

Annex 1: SABER-Teachers Ratings

The SABER-Teachers team has identified policy levers (actions that governments can take) and indicators (that 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 A1.1 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. Are teachers’ official 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?

In the country report, each goal is defined in the first paragraph of the section relating to that goal. Policy levers for achieving that goal are identified in the second paragraph. The remaining text in each section provides details about the indicators that measure each of the levers.

Using the policy levers and indicators, the SABER-Teachers tool evaluates the performance of an education system on each of the eight teacher policy goals using a four-tiered scale (latent, emerging, established and advanced) that describes the extent to which the system has put in place teacher policies associated with improved student outcomes.

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

- Advanced systems, rated on a particular policy goal, have put in place multiple policies conducive to learning for each policy lever used to achieve that goal.
- Established systems have at least one policy and/or law in place that uses those policy levers.
- Emerging systems have only some appropriate policies in place to achieve the policy goal.
- Latent systems have no or few teacher policies.

See Vegas et al. (2012) for more details about these definitions, as well as a detailed review of the policy levers and indicators used by SABER-Teachers.

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 policy-makers 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 teachers. It was produced by the International Task Force on Teachers for Education 2030, hosted within UNESCO, with support from staff of the World Bank Group.

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 Group 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 World Bank Group concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

