

# Maximizing the Performance of Education Systems

## *The Case of Teacher Absenteeism*

HARRY ANTHONY PATRINOS AND RUTH KAGIA

*“Eliminating corruption in education starts with the belief that it’s not a part of our culture. Then the devolution of power to self-governed educational establishments steps in. Introducing freedom of choice and ensuring equal access follow. Last, but not least, the whole endeavor rests on strong government leadership, with vision and integrity.”*

Alexander Lomaia,  
Minister of Education and Science, Georgia

*“In spite of a lot of progress in teaching technology in recent decades, the teacher continues to be the most essential input in the learning process. When a teacher is absent, for whatever reason, cognitive acquisition suffers. The chapter documents a lot of facts on teacher absenteeism in many counties, identifies the reasons for this phenomenon, and explores solutions. It should be a required reading for country officials who, most likely, face the problem.”*

George Psacharopoulos, O’Leary Chair (2005–06),  
College of Education, University of Illinois Urbana-Champaign

Education is essential for economic growth and social development and for reducing the intergenerational transmission of poverty. Education also interacts with other investments to raise productivity. For example, education helps make health and nutrition investments more effective. Female education yields some of the highest returns, as it is inversely related to infant and child mortality and is associated with lower fertility rates. Every additional year of schooling increases a person’s productivity and increases earnings (Schultz 1997, 2002; Psacharopoulos and Patrinos 2004). Therefore, one may conclude that investments in education are a critical part of national development.

---

Excellent contributions were made to this chapter by Gita Gopal, Heather Marie Layton, and Veronica Grigera. Saida Mamedova provided estimates of costs. Comments from Felipe Barrera, Edgardo Campos, Nazmul Chaudhury, Tazeen Fasih, Maureen Lewis, Juan Manuel Moreno, Vicente Paqueo, and Halsey Rogers are greatly appreciated.

Despite these positive associations, the full benefits of education investments are realized only when certain conditions are in place: when there is an overall enabling macroeconomic environment (Barro 1991, 2001; Pritchett 2001); when education services reach the ultimate beneficiaries and improve learning outcomes; and when education is of good quality (Hanushek and Wößmann 2007; Hanushek and Kimko 2000).

Education investments are less effective when public spending on education is misallocated, not sufficiently focused on quality, or poorly targeted. Education effectiveness is also reduced when spending decisions are improperly guided—that is, when decisions are not based on information, tools, and mechanisms that improve outcomes. Whether through poor capacity or poor governance, misallocated spending hurts the country by not benefiting students.

Corrupt education practices around the world contribute to inefficient use of resources and ultimately prohibit the achievement of a quality education for all children. Many education stakeholders argue that the Millennium Development Goals for education (universal completion of primary school, and gender parity) may not be achieved without strengthening and building the instruments needed to control corruption in education (Transparency International 2005). Moreover, given both the increased spending on education in developing countries and the unprecedented contributions of rich countries to support education in developing countries, it is important to improve the efficiency of education systems so that taxpayers in both rich and poor countries know that their money is being well spent.

## **CORRUPTION AND EDUCATION**

Corruption has different meanings to different people. Most broadly, it can be defined as the “misuse of office for unofficial ends” (Klitgaard 1998). Corrupt acts include but are not limited to bribery, extortion, influence peddling, nepotism, fraud, use of money to bribe government officials to take some specific action, and embezzlement. Heyneman (2004) argues that education corruption includes the abuse of authority for personal and material gain. Hallak and Poisson (2001) define corruption in education as “the systematic use of public office for private benefit whose impact is significant on access, quality or equity in education.”

In a surprisingly large number of countries in all regions of the world, corruption is pervasive at all levels of education, from primary schools through tertiary institutions. It can occur at any stage and among any group of actors from policy makers at the ministerial level to providers at the school level such as teachers and contractors to beneficiaries of education such as students and parents. Corrupt practices in education can include bribes and illegal fees for admission and examination; academic fraud; withholding teacher salaries; preferential promotion and placement; charging students for “tutoring” sessions to cover the curriculum needed to pass mandatory examinations and that should have been taught in the classroom; teacher absenteeism; and illegal practices in textbook procurement, meal provision, and infrastructure contracting.

Hallak and Poisson (2001) claim that corruption seems to affect education in two key ways. The first is through the pressure corruption exerts on public resources, and as a consequence on the education budget, which represents in most countries

the largest component of public spending. Corruption of this sort can cause prices to rise and the level of government output and service delivery to fall, thus reducing investment in education services. The second way is through corruption's impact on the costs of education services, their volume, and their quality; students who are educated in corrupt systems may not learn the skills needed to take advantage of available opportunities and to contribute to economic and social development. A third impact could be added to this list: corruption's impact on core values and ethics during the formative years of young people's lives. Corruption in education may undermine an entire generation's core values regarding accountability, personal responsibility, and integrity.

Corruption in education is particularly important because the sector usually accounts for a large share of public expenditures. In many countries, such as El Salvador, Guinea, Morocco, Kenya, and Yemen, one-fifth to one-third of the public budget is allocated to education (World Bank 2006b). This means that even low levels of corruption can result in the wastage or loss of significant amounts of public resources. A recent study by Transparency International (2005) documents how the leakage of resources in the education sector through corruption translates into poorly constructed classrooms, leaking roofs, dysfunctional toilets, defective furniture, and inadequate textbooks.

In his analysis of cross-country data, Mauro (1998) found that the existence of corruption causes a less than optimal composition of government expenditure. Additionally, corruption in education affects the overall access, quality, and equity of education. For example, poor families may be faced with paying illegal fees and bribes to enroll their children in free public schools. On average, the poorest 40 percent of the population in developing countries spends 10 percent of household income on costs for primary school (Oxfam 2001). Official—as well as irregular—enrollment fees and exam fees partially explain low enrollment rates (Cockroft 1998; Bentaouet Kattan and Burnett 2004).

Corruption may also reduce spending on key learning inputs. Tanzi and Davoodi (1997) found that corruption has been shown to reduce spending on textbooks. Chua (1999) found that only 16 percent of children in the Philippines received textbooks despite high public spending on them. In addition, corruption can affect the overall quality of education by reducing instructional time, in effect offering children fewer learning opportunities.

Corruption may also affect learning outcomes. Using country-level surveys, Gupta, Davoodi, and Tiongson (2000) found that countries with higher levels of corruption tend to have higher dropout rates. In fact, dropout rates in countries with low corruption and highly efficient government services are 26 percentage points lower than dropout rates in countries with high corruption and low efficiency. They found that dropout rates could be five times as high in highly corrupt countries than in countries with low levels of corruption.

## **A CORRUPTION FRAMEWORK FOR EDUCATION**

This chapter uses a simple corruption framework for education based on Klitgaard's (1998) drivers of corruption, namely,  $M$  (monopoly) +  $D$  (discretion) –  $A$  (accountability) –  $T$  (transparency) =  $C$  (corruption). The argument is that an organization is

more likely to experience corruption when it has monopoly power over a good or service and the discretion to decide who will receive it and how much they will receive, and is not accountable for the outcome. Linked to all three drivers is the aspect of transparency. Increased transparency constrains monopoly power and the unbridled use of discretion and is essential to instilling the accountability of decision makers.

How does this framework apply to the education sector? It is relatively easy to classify most education systems as monopolies (see, for example, Friedman 1955; Becker 1964). Even in decentralized education systems, it is still the government, whether national or federal or provincial, state, or municipal, that runs education. The schools, with the exception of tertiary education systems, are essentially “branches” of the system. In most countries, public schools are a virtual monopoly despite the existence of private schools: 80 percent of schools in countries covered by the World Education Indicators were public and 89 percent of schools in the OECD (Organisation for Economic Co-operation and Development) countries were public in 2005 (UNESCO-UIS/OECD 2005). Monopoly in school systems can easily result in slow innovation, less attention to cost control, a lack of choice, and a lack of accountability. While the lack of innovation and choice may negatively affect quality, and inattention to costs may make the system much less cost-effective, it is the lack of accountability that contributes to corrupt practices.

Therefore, the impact of monopoly on corruption may not be by design, and the leaders of the education monopoly may not act in bad faith. Still the monopolistic conditions for corrupt practices exist.

Large education bureaucracies have discretion to decide who gets services. They are able to plan and allocate resources according to their own design. This can happen through the budget process, school organization, and school construction and rehabilitation, as well as through teacher appointments, promotions, assignment, and so on. In most countries, teachers are trained and licensed through a government-controlled system and are assigned by the authorities to the school in which they will teach; their employment conditions and remuneration are determined by the government. Even in decentralized systems, there is at least some government control, usually over very important matters (such as pay and overall budget control).

In some countries, large teacher unions play a role in assigning teachers and affect teacher practice in many ways (see, for example Foweraker 1993 for Mexico). Studies find that conflict between the teacher unions and the government is associated with lower academic achievement (see Murillo and others 2002 for Argentina, and Álvarez, Garcia Moreno, and Patrinos 2006 for Mexico). This could be the result of many factors, including reduced teacher attendance associated with strikes and protests initiated by teacher unions. A significant number of school days were lost to strikes in Argentina (556 days), Brazil (1,116), and Mexico (434) over the 1998–2003 period (Gentili and Suarez 2004). In Belgium, a six-month teacher strike was associated with a negative effect of 11.5 percent on the earnings of of the students affected by the strike when they entered the labor force (Belot and Webbink 2006).

Discretion on the part of teacher unions can become absolute when key processes such as budget allocation and teacher appointment, deployment, and promotion are not transparent and when systematic monitoring of such decisions is lacking.

However, monopoly power and discretion need not always lead to corruption and can be countered (balanced) in a system with high levels of accountability. That is, monopoly and discretion could exist in a system with good educational outcomes if the system were made more accountable—with sufficient checks and balances to exercising discretion, transparent decision making, access to relevant information, and effective monitoring and evaluation. Weak accountability increases the likelihood of misallocation of resources, expenditure leakages, lack of performance monitoring and evaluation, and low demand for services among the poor (World Bank 2003). Weak accountability could be manifested in poorly designed, effectively unenforceable contracts between the policy maker and the service provider—contracts that could result in an unequal power balance between the service provider (the school and its relevant authority) and the beneficiaries. Poor contracts could be exacerbated by a weak relationship between beneficiaries (students and their parents) and the policy maker (government), with the former having inadequate means to voice concerns and express preferences. The corruption vulnerabilities framework, presented in figure 2.1 as a value chain, can assist decision makers in identifying circumstances where limited accountability and transparency allow monopoly and discretion to lead to corruption.

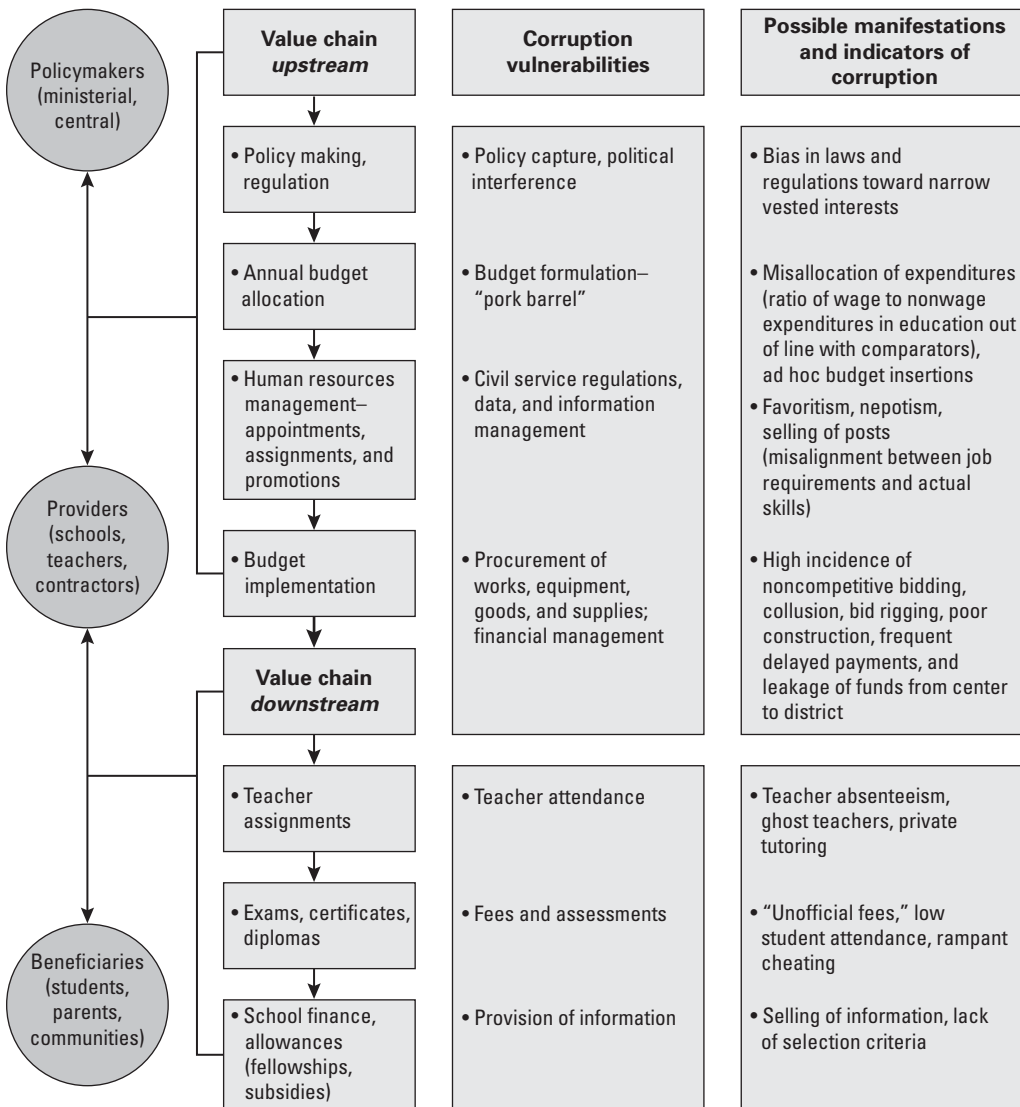
The purpose of education can be seen as producing quality education, as well as a knowledgeable and skilled population. There is a value chain that ultimately leads to this outcome. At the higher level, national policy sets the rules and system. At the sector level, more specific strategies and goals are set, including the national budget. At the ministry level, decisions about buildings and procurement of necessary inputs are made. In most countries, decisions also are made at this level about teacher appointment, management, and promotion. At the district level—or at any other point where the education services are actually delivered, downstream on the value chain in figure 2.1—key actors, mainly teachers and directors such as headmasters and principals, make daily decisions that affect educational quality. In addition, teacher quality is an intermediate outcome of the value chain that contributes directly to final outcomes. Along all these points, from the bottom to the top, are numerous opportunities for leakages and corrupt behavior that can hamper, even block, the achievement of ultimate objectives.

## **A FOCUS ON TEACHERS AND ABSENTEEISM**

All countries display ample scope for and some evidence of corruption in the education sector. While different forms of inefficiencies and corruption exist in education, we focus here on the most important feature of the education system: classroom teachers. That focus seems warranted since teachers are not only the gatekeepers to quality education but also account for most of the expenditures in the sector.

Teachers are the transmitters of knowledge who help ensure that children learn. They are role models to students, and in most rural communities, they are the most educated and respected personages. They are at the front line of developing pupils' understanding, attitudes, skills, learning, and core values. Teachers are, therefore, the most important element in producing quality education.

**FIGURE 2.1** The Value Chain and Corruption Vulnerabilities in the Education Sector



Source: Staff adaptation of Hallak and Poisson (2005) and World Bank (2003). Edgardo Campos made significant contributions to this chart.

Teacher salaries are also frequently the largest item in education budgets, often reaching more than 80 percent of the total sector budget (World Bank 2006b). One study of 55 low-income countries found that, on average, teacher salaries and benefits accounted for 74 percent of recurrent public expenditures on education, amounting on average to 4 percent of the country's GDP (gross domestic product) (Bruns, Mingat, and Rakotomalala 2003). In comparison, teacher salaries and benefits in high-income countries are generally a much lower share of total education spending. For example, mid-career salaries for primary school teachers average only 1.3 times GDP per capita in OECD countries (OECD 2005).

Several different types of teacher-related corruption practices have been systematically investigated.

- Teacher absenteeism (for example, Chaudhury and others 2006; Kremer and others 2005), which is discussed further below.
- Ghost teachers (World Bank 2004), or teachers who do not hold a teaching position but who are on the payroll and continue to receive pay, which may be cashed by other officials.
- Influence peddling and cheating, such as passing answers to students in efforts to improve results in high-stakes testing. In an influential study, Jacob and Levitt (2003) concluded that cheating occurs in 3 to 5 percent of elementary school classrooms each year in the Chicago Public Schools.
- Credential fraud (Eckstein 2003), which includes unqualified individuals obtaining academic degrees through fraudulent data, diploma mills, and other acts.
- Illegal private tutoring (Bray 2003), including cases where teachers receive illegal payments from students after hours for teaching lessons they should have been teaching during the regular school day.
- Illegal behaviors, such as child labor, abuse, and criminal offences (Human Rights Watch 2001).

Moreover, teacher wages are not typically fully responsive to local labor market conditions or to individual characteristics, so many teachers receive substantial rents in the form of wages that are higher than their outside options (Chaudhury and others 2006). Often, there are many applicants for open teaching positions, a situation that could create space for bribes and other forms of corruption in teacher recruitment and placement, especially when there is no clear and open process for recruitment.

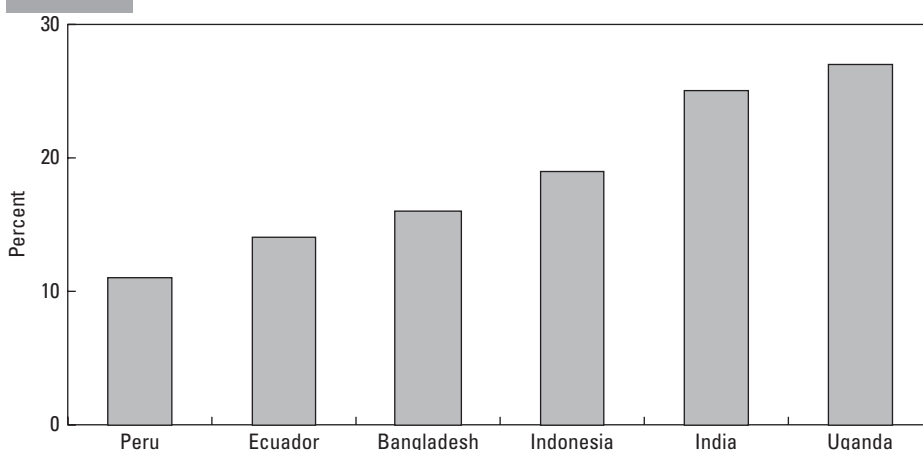
We have chosen to focus this chapter on teacher absenteeism, one of the most serious forms of education corruption, because it appears to be pervasive, it has a lasting effect on students, and it constitutes a large burden on the education budget. The evidence we rely on comes from a few rigorous studies based on representative samples. Although we believe that the orders of magnitude these studies report are valid, it is nevertheless useful to keep in mind that the data are limited.

To give an idea of the range of the problem, a recent study by Chaudhury and others (2006) shows absenteeism rates of primary school teachers that range between 11 and 27 percent (figure 2.2). Such absenteeism rates have a tremendous impact on the education sector. In terms of direct loss of financing, it is estimated that between 10 and 24 percent of recurrent primary education expenditures are currently lost to teacher absenteeism (table 2.1). Losses from teacher absenteeism range from \$16 million a year in Ecuador to \$2 billion a year in India.

Teacher absenteeism causes more than economic loss. It greatly reduces the overall effectiveness of the school, diminishes pupils' achievements, damages the school's reputation, and induces pupil absenteeism (Bray 2003), while simultaneously providing negative role models for students who often see teachers as mentors.

Studies show that teacher absenteeism can influence the overall quality of education because it reduces instructional time. A study in India found that a randomized intervention that decreased the incidence of teacher absence from 36 percent to 18 percent caused test scores to increase by 0.17 standard deviations (Banerjee and

**FIGURE 2.2 Teacher Absenteeism Rates in Selected Countries**



Source: Chaudhury and others (2006).

**TABLE 2.1 Estimated Direct Costs of Teacher Absenteeism, Selected Countries**

Country	Direct cost of absenteeism as percent of public budget (current expenditure primary education) <sup>a</sup>	Direct cost of absenteeism in primary education as a percent of GDP <sup>b</sup>	GDP at market prices (current \$, billions)	Direct cost of absenteeism in primary education (current \$, millions) <sup>b,c</sup>
Bangladesh	—	0.14	56.6	81
Ecuador	—	0.05	30.3	16
India	22.1	0.29	691.2	2,032
Indonesia	15.4	0.07	257.6	173
Peru	10.3	0.11	68.6	77
Uganda	23.6	0.86	6.8	59
Zambia	16.2	0.31	5.4	17

Source: Chaudhury and others (2006); Das and others (2005); UNESCO-UIS/OECD (2005); World Bank (2006b).

<sup>a</sup> Absenteeism rate multiplied by expenditure on teacher salaries as percent of primary current education expenditure.

<sup>b</sup> Absenteeism rate multiplied by public education expenditure as percent of GDP multiplied by share of public expenditure for primary education (assuming absenteeism rate is for primary level).

<sup>c</sup> For countries where teacher salaries are not available (Ecuador, India, Uganda), salaries for all education personnel were used; for Bangladesh, the teacher salary is an estimate from Chaudhury and others (2006) of 97 percent of recurrent education expenditures.

Note: — = not available.

Duflo 2006). An earlier study in India showed that a 10 percent increase in teacher absence is associated with a 1.8 percent lower student attendance rate as well as with a 0.02 standard deviation reduction in test scores of fourth grade students (Kremer and others 2005). Similarly, a recent study in Zambia showed that a 5 percent increase in teacher absentee rates reduces learning by 4 to 8 percent of average gains over the academic year in English and mathematics (Das and others 2005). In Bangladesh, teacher absenteeism has a significant and negative impact on primary level English

language test scores (Chaudhury and others 2006). This loss of student achievement has important implications since, as mentioned earlier, education quality is the key ingredient in boosting economic growth (Hanushek and Kimko 2000).

## **IS TEACHER ABSENTEEISM CORRUPTION?**

Not all absenteeism is necessarily a sign of corruption. Obviously, there are many valid and legitimate reasons for a teacher to be away from the classroom, such as illness, professional development, and family bereavement. But some absences are clearly illegitimate, as when teachers collect another salary by “moonlighting” when they should be in the classroom. Moreover, what might be considered official absence could be caused by inefficiencies or corruption upstream, for example, when officials use teachers for political campaigning. Reasons provided for absenteeism fall into the following key categories: official teaching and nonteaching duties, excused absence, authorized leave, sickness of self or other, unexcused absences, and tardiness (Akhmadi and Suryadarma 2004; Alcazar and others 2006; Chaudhury and others 2006; Kremer and others 2005; Rogers and others 2004) (see box 2.1).

Reported reasons for teacher absenteeism may not be fully reliable. Nonetheless, even though many teachers have a “reason” for being absent on a regular basis, it is still *prima facie* misuse of public resources in that services that have been paid for are not delivered. For example, a teacher who collects a government salary but does not show up to teach and instead uses the time to moonlight, thus earning more funds, is clearly abusing the system. The end result is that many students go without education. This case can be safely termed corruption.

Another example is the teacher who does not show up to work because the government has not paid his salary, and he has to travel to the payment center to collect

### **BOX 2.1 Reasons for Teacher Absenteeism**

In South Asia, official school-related activities may include participating in immunization drives, assisting local politicians, and conducting population census work. In Bangladesh, the top reasons for absenteeism included being “away on official school-related duties” (49 percent of all absences) and “on official leave” (33 percent of absences). In India, where teacher absenteeism is 25 percent on average, only about 8–10 percent of teacher absence can be attributed to annual leave, medical leave, and other officially sanctioned reasons for absenteeism. In Indonesia, about 37 percent of absent teachers were sick or had leave permission, 19 percent reported performing official duties, 26 percent reported arriving late or leaving early, and 18 percent had unclear or unknown absences. In Ecuador, studies documented a 14 percent absenteeism rate, with 29 percent of teachers having excused and sick leave absences, 18 percent reporting being at official duties, and an astounding 53 percent of absenteeism being unexcused. In Papua New Guinea, 36 percent of teachers reported absence due to sickness, while 4 percent reported attendance in training, 11 percent reported official functions, 6 percent reported approved paid leave, 8 percent reported travel to town as a reason for absence, and 34 percent had other or unknown reasons for absenteeism.

*Source:* Chaudhury and others (2006); Kremer and others (2005); Akhmadi and Suryadarma (2004); Rogers and others (2004); World Bank (2004).

his paycheck. One would be wary of calling that teacher corrupt. Effectively, teachers who have to take time off to collect pay or do other official duties “misuse public office for private gain,” but the misuse is caused by inefficiencies upstream. Nevertheless, the result is similar. The school lacks a teacher, the students go without learning, public funds are wasted, and learning outcomes are harmed. This sort of absence is most likely to happen in rural schools, further disadvantaging poor populations.

The situations described in these examples can occur because of a lack of enforcement, supervision, and incentives. Whatever the individual motivation, the results are the same at the school level. Therefore, using this outcome-based measure, one can consider teacher absenteeism as “corruption” regardless of the individual motivations of the teacher. The only difference is the degree of guilt or culpability (Cooter and Ulen 2000). One can think of the teachers who moonlight for personal gain at the cost of fulfilling their regular duties as being highly culpable. Further down the scale are the teachers who are absent because of illness or caring for the sick; they are “less culpable” because such absence often results from a lack of appropriate leave policy and weak central planning (combined with low salaries in some cases). Finally, there are teachers who take time off to collect their pay from the capital or are required to attend union meetings or other prescribed duties; these are perhaps the least culpable of all. In all cases, however, despite differences in intent and therefore the degree of culpability, the costs of teacher absenteeism are ultimately borne by the system and its supposed beneficiaries—the students.

## **INCIDENCE AND CORRELATES OF TEACHER ABSENTEEISM**

Teacher absenteeism exists in all education systems. High teacher absenteeism can exist despite high salaries when teachers seem to have very low levels of motivation to do their jobs and little commitment to their profession, and when there is a lack of accountability. In addition, relatively low wages in the civil service relative to wages in the private sector can encourage corruption. When civil service pay is too low, teachers may search for additional employment as a way of supplementing their incomes, particularly when the expected cost of being caught is low (Becker 1968). This is consistent with the labor absenteeism literature (see, for example, Sapsford and Tzannatos 1993; Barmby and Treble 1991; and Allen 1981).

Several studies have attempted to determine the incidence and determinants of teacher absenteeism, but rigorous and comparable cross-country data on this subject is difficult to obtain. The evidence presented in Chaudhury and others (2006), which compares trends in teacher absenteeism in Bangladesh, Ecuador, India, Indonesia, Peru, and Uganda, offers some of the most rigorous comparable data available.

Earlier studies buttress the recent findings by Chaudhury and others (2006) regarding the prevalence of teacher absenteeism. The results of these earlier studies are not easily comparable with current findings, because different methodologies for determining teacher absenteeism were used. These studies nevertheless corroborate the fact that teacher absenteeism is (and has been) a principal drain on the education system of various countries. For example, school surveys conducted in 1995 in 14 low-income countries showed that absenteeism was especially high in Sub-Saharan Africa

and South and West Asia, with teacher absentee rates ranging from 8 percent in Bangladesh to 38 percent in Tanzania (Schleicher, Siniscalco, and Postlethwaite 1995).

The findings from Chaudhury and others (2006) showing absenteeism rates for primary school teachers ranging between 11 and 27 percent might be underestimates. In countries such as Uganda, where the absenteeism rate is 27 percent, Chaudhury and others found that many teachers who were counted as present were not actually teaching. In India, 25 percent of government primary teachers were counted as absent but only about 50 percent of teachers were actually teaching. While not strictly comparable, these rates are high relative to absentee rates in the private sector of developed countries and in other industries in developing countries. For example, according to a 2000–01 Ministry of Labor Industry Survey, Indian factory workers have absence rates of about 10.5 percent, despite strict labor laws that ensure them high job security (Kremer and others 2005). Other studies also show high levels of absenteeism in Indian schools. The *Public Report on Basic Education in India* (Probe Team 1999) called attention to the disturbingly low level of teaching activity taking place in government schools. The Probe Team found that in fully one-third of schools, the head teacher was absent on the day of the survey.

Studies show that absence rates are generally higher in poorer regions (Chaudhury and others 2006). Rural teachers in India, Indonesia, and Peru have higher absenteeism rates (on average 4 percentage points higher) than their counterparts in urban areas. Teachers in smaller schools in Peru are more likely to be absent than teachers in larger schools (Alcazar and others 2006). In Papua New Guinea, the effect of a school's location on absenteeism is inconclusive, but lower teacher absence is correlated with the number of textbooks in a school (World Bank 2004). Lower teacher absenteeism is also correlated with student-teacher ratios, with teachers less likely to be absent if their classes are smaller. Different teaching methods in India do not seem to produce significantly different absenteeism rates (Kremer and others 2005). There is mixed evidence as to whether a teacher's gender is associated with higher absenteeism (Akhmadi and Suryadarma 2004; World Bank 2004; Kremer and others 2005).

The length of absence was examined in the Papua New Guinea study, where 30 percent of absent teachers reported being gone for one day while 25 percent of absent teachers reported being absent for more than seven days (World Bank 2004). This study also found that teachers began teaching well into the start of the school year: on average, they took up their posts 10 days after the official start of the school year. In extremely remote areas, teachers (not counting head teachers) began their teaching posts 27 days—almost one month—into the start of classes.

Health issues are also important determinants of absenteeism. Although illness is a valid reason for absenteeism, it is not clear why teachers would be any more absent than other workers in the country (Kremer and others 2005). HIV/AIDS has had a devastating effect on education and teacher effectiveness in Sub-Saharan Africa, although studies show that in Uganda teacher absence rates are not correlated strongly with HIV/AIDS, and in Zambia they are lower (around 17 percent) than might be expected given the country's high HIV/AIDS prevalence (Chaudhury and others 2006). Still, in 35 percent of the cases of absenteeism in Zambia, illness was reported as the reason and illness in the family and funerals accounted for an additional 27 percent (Das and others 2005).

School infrastructure appears to have a significant impact on teacher attendance in Peru and Indonesia, suggesting that poor working conditions act as disincentives for teachers. In Peru, absentee rates for teachers in schools with bathroom facilities are 21 percentage points lower than they are for teachers in schools that do not have such facilities. An increase in the availability of infrastructure is associated with a significant decrease in absences (Alcazar and others 2006). Teacher absenteeism in Indonesia was also higher in schools that did not have bathrooms and in schools that did not have enough classrooms (Akhmadi and Suryadarma 2004).

Higher-ranking officials such as headmasters are absent more often than those at the bottom of the ladder. Head teachers in Bangladesh, India, Papua New Guinea, and Peru were more likely to be absent than other teachers (Alcazar and others 2006; Chaudhury and others 2006; Kremer and others 2005; World Bank 2004). For example, head teachers are 5 to 13 percentage points more likely to be absent than regular teachers in Peru. There is some evidence from Bangladesh that official duties and administrative responsibilities may explain these higher absence rates (Chaudhury and others 2006). Head teachers may also set an example for their subordinates. In Indonesia, teacher absenteeism was likely to be higher if head teachers were absent (Akhmadi and Suryadarma 2004). In terms of corrupt behavior, it could be that these head teachers and others have the power to shield themselves from disciplinary action.

There is very little evidence that higher salaries lead to better attendance. Because reliable information on salaries is difficult to collect, age, education, and seniority are often used as proxies on the assumption that teachers who are older and more educated and who hold senior positions in schools are likely to be paid more. Better-paid teachers are absent more frequently in India and Peru (Alcazar and others 2006; Kremer and others 2005). The timing of paychecks is a factor in Papua New Guinea, where delays in salary payments are associated with greater absenteeism. Lack of teacher housing in Papua New Guinea is also correlated with higher absenteeism rates (World Bank 2004).

Contract teachers in public schools, who are not subject to civil service protection and earn a fraction of what civil service teachers earn, have the same or higher absence rates (Chaudhury and others 2006; Akhmadi and Suryadarma 2004; Alcazar and others 2006). Contract teachers may be more likely to have other jobs to supplement their teaching salaries. Or their high absenteeism could be a result of poorly designed contracts. However, private school teachers have lower absence rates than do public school teachers.

Evidence is mixed on the relationship between teachers' level of education and absenteeism (Akhmadi and Suryadarma 2004; Alcazar and others 2006; Chaudhury and others 2006; Kremer and others 2005). For example, teachers in India who hold college degrees are more likely to be absent, by 2–2.5 percentage points, than those without degrees; but the opposite relationship is found in Bangladesh. In addition, the evidence on teacher training or tenure is mixed. Again, better opportunities outside of teaching and a negligible chance of being caught for being absent—or suffering any consequence—would better explain this behavior.

Formal supervision may be one way of decreasing absenteeism. Visits from officials in the Education Ministry reduced teacher absenteeism in Bangladesh and India (Chaudhury and others 2006; Kremer and others 2005). Absence rates are 10 percent

higher in secondary schools in Bangladesh that have never been visited by education officials. In India, teachers were 2 percentage points less likely to be absent if their schools had been inspected in the past three months. Moreover, teachers in districts where all schools had been inspected in the previous three months had absenteeism levels about 7 percentage points lower than those in districts where no schools had been inspected. Direct inspections in Indonesia and Papua New Guinea did not have any significant impact on teacher absenteeism, although there is anecdotal evidence from Indonesia that school inspectors are often bribed (Akhmadi and Suryadarma 2004; World Bank 2004). In Ecuador, researchers using the distance from ministry offices as a proxy estimated that absence rates for teachers at schools more than 15 miles away were 16 to 18 percentage points higher than those at schools closer to the ministry offices (Rogers and others 2004). A similar story emerges from Indonesia (Akhmadi and Suryadarma 2004).

Related to supervision is disciplinary action. In Ecuador, teachers are more likely to show up in those schools where the director imposes disciplinary action (Rogers and others 2004). That suggests that disciplinary action is needed to reinforce monitoring and supervision efforts. In fact, a lack of will or authority for undertaking disciplinary action may undermine monitoring and supervision efforts. In many places, rules for disciplinary action for repeated, unexcused absences are rarely enforced even when they exist. Teachers are almost never fired, and there are few consequences for absence. Kremer and others (2005) found that although one-fourth of India's teachers were absent at any given time, there was only one report (among a sample of 3,000 government schools) of a teacher being fired for absenteeism, and only 1 percent of head teachers reported transferring consistently absent teachers to undesirable locations. Private schools in India, whose clients may hold teachers more accountable, tend to impose more punitive action: out of 600 private schools visited, 35 reported that head teachers fired staff for repeated absenteeism. Finally, only 44 percent of head teachers in Papua New Guinea said that they play a strong role in teacher promotion, and only about 35 percent take disciplinary action (World Bank 2004).

Evidence on the impact of community and parental involvement in reducing teacher absenteeism is mixed. Predicted teacher absenteeism in Papua New Guinea fell by 50 percent when parental and community involvement was added to a model (World Bank 2004). Overall, schools in India had similar absenteeism rates whether or not they had parent-teacher associations (PTAs), although schools where PTAs had met in the past three months had lower teacher absenteeism rates (Kremer and others 2005). PTA activity was not significant in Peru, however, and parent committee activity in Ecuador was actually correlated with high levels of teacher absence, perhaps because excessive teacher absenteeism caused parents to become more involved (Alcazar and others 2006; Rogers and others 2004). An additional indicator for parental involvement in Ecuador, the share of schools in a province that had parent committees, was also insignificant. However, parental involvement in Nicaragua was thought to have reduced teacher absenteeism in community schools (Sawada 1999; see also Gertler, Patrinos, and Rubio-Codina 2006). And in Peru teachers born in the district where the school is located exhibited lower absence rates—on average, 6 percentage points lower than other teachers (Alcazar and others 2006). Community and parental involvement thus compensated to some extent for the lack of supervision and monitoring at the official level.

**TABLE 2.2** Some Correlates of Teacher Absenteeism in Bangladesh, Ecuador, India, Indonesia, Papua New Guinea, Peru, and Zambia

<i>Factor</i>	<i>Indicator of level of corruption</i>	<i>Evidence (significant)</i>	<i>Potential solution</i>	<i>Proven</i>
Teacher education and training	High	Mixed	Link attendance to rewards Experiment with incentives and fully evaluate	Partial
Teacher tenure	High	Mixed		
Teacher ties to community	Low	Mixed	Hire local teachers whenever possible Experiment with hiring local teachers and evaluate	Promising
Teacher pay and incentives	Medium	Mixed	Publish pay rates Performance incentives	Partial Promising
Contract status	High	Negative	Contract teachers are paid at market rates when these are lower than salaries of regular teachers, making the expansion of the teaching force more financially sustainable	Promising
School infrastructure	High, medium	Mixed	Experiment with minimum standards	Partial
Remoteness	High, medium	Mixed	Experiment with transportation vouchers Experiment with incentives for working in rural areas, tied to attendance	Promising Partial
Administrative monitoring and supervision	Medium	Mixed	Formal supervision may be one way to decrease absenteeism.	Promising
Enforcement, disciplinary capacity	Medium	Positive	Disciplinary action is needed to reinforce monitoring and supervision efforts Improve the power of head teachers and school supervisors to discipline teachers that are consistently absent	Promising
Type of school (public or private)	High	Mixed	Experiment with better contracts	Promising
Community and parental involvement	High	Mixed	Experiment with school- and community-based management of schools	Promising
Lack of status for teaching	High	Little	Professionalize the teaching profession	Promising

*Sources:* Based primarily on Akhmadi and Suryadarma (2004); Alcazar and others (2006), Chaudhury and others (2006); Kremer and others (2005); Rogers and others (2004); World Bank (2004).

Levels of education among the beneficiary population are correlated with teacher absenteeism levels. For example, Chaudhury and others (2006) found that a 10 percentage point increase in parental literacy was correlated with a 1 percentage point decrease in the teacher absence rate. This could be the result of several factors. Greater demand for education, monitoring ability, or political influence by educated parents are likely explanations. In addition, more pleasant working conditions for teachers might be created when the children of literate parents are also better prepared for school or more motivated. There could also be selection effects, with educated parents abandoning schools with high absence rates. Finally, favorable community characteristics may contribute to both greater parental literacy and lower teacher absence.

Absenteeism results from a combination of individual and systemic issues. While some cases of absenteeism are easily categorized as individual decisions to accept pay without providing a service, in other cases systemic problems make it difficult to blame only the teacher (table 2.2). In systems that do not promote efficiency and honesty, teachers can be just as much the victims as are the students. Table 2.2 tries to categorize some of the evidence and draw tentative policy suggestions. The column on the indicator of the level of corruption presents our view on whether the reason for absenteeism is clear (or high) evidence of corruption, or less so (medium and low). The evidence column refers to whether the coefficients in the study are statistically significant and whether there is sufficient evidence from a number of countries to make a judgment. For instance, “negative” refers to cases where the factor (for example, contract status) has little impact on teacher absenteeism. Conversely, “positive” refers to factors that are likely to reduce levels of absenteeism (for example, enhanced enforcement and disciplinary capacity). Table 2.2 also has a column on whether the suggested policy response is known to work to reduce absenteeism, although we cannot say anything more at this stage than that a particular proposal may be partially proven or promising. In no case is there sufficient evidence to draw unequivocal conclusions on practices that might reduce absenteeism. The following section nevertheless draws some preliminary conclusions. It also argues that the concept of teacher absenteeism, as one form of corruption in education, needs more debate and evidence.

## **COMBATING TEACHER ABSENTEEISM**

Combating teacher absenteeism begins with designing better systems for monitoring and reducing unexcused and invalid absences. Monopolies must be reduced or carefully regulated. Official discretion must be clarified and balanced with accountability. Transparency must be enhanced. The probability of being caught, as well as the penalties for corruption (for both givers and takers), must increase (Klitgaard 1998). Actions are needed at both the national and local levels.

### **Reforms at the National Level**

Actions at the national level begin with political leadership and policy and civil service reforms. Improved financial management of public education spending, greater access to accurate information and awareness of the problem of absenteeism, and

systematic monitoring of teacher attendance are all important ingredients of any plan to slow absenteeism. Other helpful approaches include incentives for teachers and the involvement of the private sector.

### ***Political Leadership***

The first steps in tackling teacher absenteeism are political leadership and general commitment to policy and institutional reforms to weed out corrupt practices in the use of public resources. Capable and accountable political leaders are needed to make policies, provide public services, set the rules governing markets, and oversee the use of public resources—and thus reduce poverty, promote growth, and contain corruption. Therefore, teacher absenteeism should best be addressed within the framework established for addressing overall corruption in the country. Without such an overall approach that will put all civil servants under pressure to be at their desks, it will be difficult to bring teachers back into the schools.

### ***Policy and Civil Service Reform***

The process for appointing, assigning, and promoting teachers needs to be made transparent (see Duarte 2001 on how this process is subverted in Colombia). The appointment process, for example, should encompass unambiguous selection criteria, a clear process for selection, and publication of job availability and requirements. Such a transparent process would help reduce discretion and scope for corrupt practices (Chapman 1991; Reinikka and Svensson 2006). In India and other countries where powerful teacher unions form an important voter base, policy makers should consider incentives that would reduce discretion in appointment and deployment of teachers and encourage promotions based on performance rather than on seniority and college degrees. Raising public awareness is of paramount importance in curbing abuses in appointing, assigning, and promoting teachers. Setting clear rules for teachers and responsibilities for teachers and parents are important signals that education is a national priority and that deviations are not to be tolerated. Recently, India proposed a Right to Education Bill (August 2006), which compels parents to send their children to school or face fines, such as compulsory community service. To reduce the number of teachers who perform nonacademic work, the Ministry of Human Resources Development stipulated that the only noneducational purposes teachers in state-funded schools could undertake were decennial population census; local, state, and national elections; and disaster relief duties (*Times of India* 2006). This would clearly reduce pressures for teacher absenteeism for “official duties.”

The best approach for curbing teacher absenteeism would be an effective civil service reform that would enhance the accountability of all civil servants and not just that of teachers. Comprehensive reform is sometimes difficult and complex and may take time. In the interim, solutions outside of the sector can be effective. These may include better use of information throughout the system; examples are Public Expenditure Tracking Surveys (PETS)—a quantitative survey of the supply side of public services that collects information on facility characteristics, financial flows, services delivered, and accountability arrangements, designed to provide reliable administrative and financial data, to trace the flow of resources from origin to destination,

## BOX 2.2 Code of Ethics for Teachers

A comparative survey undertaken by the International Institute for Educational Planning in Bangladesh, India, and Nepal argues that a teachers' code of conduct could contribute to improving outcomes and reduce absenteeism. The main elements of codes need to be:

- A clear definition of their aims
- Wide dissemination
- Establishment of both social and professional controls on their implementation
- Strict sharing of monitoring among key stakeholders
- Training of education personnel

*Source:* Hallak and Poisson (2005).

and to determine the location and scale of anomalies—and the posting of information on transferred resources, as is done in Kenya and Uganda, for example (see below).

Within the education sector, codes of conduct for teachers that set out clear parameters for professional behavior and performance have been found to be helpful in raising awareness of professional standards and strengthening teacher performance on the whole (box 2.2). Teachers must be seen as a crucial factor in promoting quality education. In addition to being well rewarded and well trained, the teaching profession must have dignity and recognition, as is the case in many East Asian countries.

### **Public Expenditure and Financial Management**

Improving access to relevant and helpful information on public spending can also constrain the scope for corrupt practices, enhance transparency, and increase accountability (Bellver and Kaufmann 2005). Hallak and Poisson (2005) find that greater access to financial information is particularly helpful in situations where program administration is monopolized and where salaries of public officers are low.

In this regard, PETS can be very effective. In one study, Reinikka and Svensson (2006) documented tremendous leakage in the Ugandan education system, finding that, on average, only 13 percent of annual per student funds reached schools; local officials used the remaining 87 percent for noneducation purposes. But when information on capitation funds transferred to school districts was published in newspapers and broadcast on radio, the situation changed. Each school was also required to post a notice of all funds received on the school's bulletin board. Within three years, 90 percent of capitation funds provided by the central government were reaching the local schools (Chapman 1991; Reinikka and Svensson 2006). A PETS implemented in Kenya shows that dispersal of funds directly to schools has been efficient, with schools receiving funds allocated on time (PricewaterhouseCoopers 2005). In the past, the flow of funds to schools had been delayed or lost as the funds moved from one government office to the next. Direct dispersal has been enhanced in a large majority of the schools that have installed tracking systems that ensure transparency. These examples show that even in countries with relatively high levels of corruption, it is possible to “ring-fence”

the education sector by strengthening both accountability and transparency down to the lowest delivery points. Information on resources that are supposed to reach the school, including number of teachers and information on their absences, can therefore help to reduce abuses.

### ***Public Information Campaigns***

To make any campaign to reduce teacher absenteeism more effective, awareness of the social and economic costs of absenteeism must be raised. We documented potentially very high costs from absenteeism in terms of both budget and student learning. Demand for changes, whether at the policy or institutional levels, will have to come from the population at large—from students, from parents, and even from teachers. Raising awareness is particularly important where parents and even teachers do not see teacher absenteeism as a corrupt practice or sanctionable, perhaps because it is a regular occurrence in other local service delivery institutions with which they are associated. In Uganda, a 1998 National Integrity Survey, conducted by a nongovernmental organization (Community Information, Empowerment and Transparency) in collaboration with Uganda's inspector general, found that citizens are less likely to pay "extra fees" if they have access to facts about how public service functions (CIET n.d.). Thus, while it is important to fight corruption in education, in the long term, it is equally important to use education and other programs to raise awareness of the costs of teacher absenteeism.

### ***Systematic Monitoring***

Closer oversight of local schools could help curb corrupt practices and is possible in most cases under existing regulations. Strengthening inspections, documenting the extent of ghost teachers, increasing the frequency and quality of audits, and taking corrective actions are all examples of monitoring that would help reduce teacher absence. Introducing an Education Management Information System (EMIS) program at the school level would allow collection of adequate data to better understand the problem of teacher absenteeism as well as help curb corrupt practices relating to teacher appointments and deployment (box 2.3). Not only is there a need for learning assessments, benchmarking, and evaluations to increase school accountability (World Bank 2006a), but authorities cannot manage the education system well without proper measurement of inputs and outputs. One possible way to

#### **BOX 2.3 Potential of an EMIS Program**

The introduction of an EMIS program in The Gambia provided an objective way of tracking and ranking teachers by seniority, language abilities, subject specialization, and other factors that were supposed to be used in assigning teachers to schools. Reportedly, the availability of such information made it more difficult to deploy teachers based on personal influence or connections. A similar effort in Liberia failed after two years because head teachers refused to provide accurate data in annual school surveys.

*Source:* Chapman (1991).

manage accountability is to require standardized tests. Mexico, for example, expanded the use of assessments, both national and international, to hold the system accountable (World Bank 2006a).

### **Incentives**

Incentives can help curb absenteeism, but they must be monitored to ensure that they do not become another source of corruption. For example, Kremer and Chen (2001) followed a group of preschool teachers in Kenya and found much higher absence rates during unannounced visits than were reported by headmasters, who appeared to be misreporting attendance to ensure that the teachers received salary bonuses. Chile, however, has a long history of performance-based teacher and school-based incentive programs designed to improve outcomes (Cox 2006).

Any incentives should be based on measures of performance or attendance. An external agent can be tasked with monitoring attendance and either rewarding teachers who show up regularly or penalizing teachers who are frequently absent. Technology can also be used to monitor teachers (box 2.4). Performance measures, such as test scores, have also been used, although Glewwe, Ilias, and Kremer (2003) found that this approach did nothing to improve teacher attendance.

#### **BOX 2.4 Detecting and Reducing Absenteeism**

A randomized experiment using cameras to monitor teacher attendance was implemented in a rural district in the state of Rajasthan, India, by the nongovernmental organization Seva Mandir. Because of Rajasthan's geography and the remote location of villages, monitoring schools on a regular basis is difficult. Most of these schools have only one teacher, so when the teacher is absent, children miss an entire day of school. Before the experiment began, the teacher absentee rate was 44 percent. Sixty schools were randomly selected from a group of 120 to serve as treatment schools; the other 60 served as the control group. The treatment schools were given a camera and instructions for the teachers to take a picture of himself/herself with the students at the beginning and end of each school day (cameras had a tamper-proof date and time function). Teachers received a salary of 1,000 rupees (about \$22) if they were present for at least 21 days in a month and a bonus of 50 rupees (about \$1) for each additional day (a day was measured as one in which the pictures were separated by five hours and a minimum number of children were present). Teachers were penalized 50 rupees for each day past the 21-day benchmark that they were absent. Depending on the teachers' attendance record, their monthly salary could range from 500 to 1,300 rupees. In the control schools, teachers received a monthly salary of 1,000 rupees and were reminded that they could be fired for poor attendance. In addition, one unannounced visit was made to each school monthly.

The absence rate fell by half in the treatment schools, much more than in control schools. Moreover, the program seemed to have an especially strong impact at the extremes of the teacher absenteeism scale: extreme absences (over 50 percent absence rate) were completely eliminated, and the number of teachers with perfect or very high attendance rose. In addition, the number of child-days per month taught increased by one-third. The experiment was also cost effective. Because of the payment structure, the average salaries in both groups were comparable, meaning that the incentives were essentially effective without an increase in net pay and the only costs incurred were the costs of the cameras and program administration. The cost of the program was \$6 per child per year.

*Source:* Banerjee and Duflo (2006).

### ***Bringing in the Private Sector***

Absenteeism could be reduced by adopting parental choice or funding-follows-student schemes (Chaudhury and others 2006). Incentives to encourage the private sector to provide education services would break up the monopoly power of government service providers, thus limiting their ability to demand bribes. Alternative institutional forms, including hiring contract teachers, setting up community-run schools, and establishing low-cost private schools (perhaps through vouchers or scholarships) to deliver education services may reduce the incidence of absenteeism. The evidence, though, is mixed. Chaudhury and others (2006) found that contract teachers in Indonesia had higher rates of absenteeism, while Vegas and De Laat (2003) found no difference between contract and civil service teachers in Togo. Chaudhury and others (2006) also found that although alternative schools are cheaper, absenteeism is on par with government models.

### **Reforms at the Local Level**

A national strategy for curbing corruption is a complex process that will take time to formulate and implement. Direct action to reduce corruption—even if focused only on teacher absenteeism—will be a difficult and long process. In the short term, it might make sense to focus on indirect measures at the local level that have the potential to reduce absenteeism.

### ***Beneficiary Participation and Control Strategies***

Although more evidence is needed to be certain, perhaps the most promising step would be to increase accountability and transparency at the local level, thus counterbalancing monopoly power and the unions and making official discretion more apparent. This type of reform typically relies on control strategies that are exercised by school beneficiaries, namely, students and, more important, their parents.

For beneficiary control and participation strategies to work, parents must want their children to have a high-quality education. Only when parents have a real demand for education will they have the incentive to monitor teachers and schools. To be successful, beneficiary control strategies must also give the beneficiaries the means to monitor and reward or penalize providers (as in Rajasthan and Kenya). Beneficiary control strategies include hiring and firing authority, setting salaries for providers, and simply monitoring and reporting attendance and performance. According to Banerjee and Duflo (2006), making teachers accountable to a school committee or a body of parents is the standard example of this type of reform (box 2.5).

An increasingly common approach is to involve local communities, particularly parents, in the management and monitoring of school performance (box 2.6). Typically, this involvement generates increased community “ownership” in improving education, thereby increasing accountability of school management.

Mechanisms to allow for participation of beneficiaries, especially the poor, in decision-making processes should be developed and implemented. Banerjee and Duflo (2006) note several advantages that flow from giving beneficiaries more control and decision-making power. First, this approach is cost effective. Second, beneficiaries tend to be better informed than central-level authorities, and they are

### BOX 2.5 Raising Demand for Quality Services

Demand for services may be linked to teacher absenteeism in an unexpected way. In a randomized girls' scholarship intervention in Kenya (Kremer, Miguel, and Thornton 2004), both student and teacher attendance increased in treatment schools. Teacher attendance was 6.5 percentage points higher in treatment schools than in control schools and was one-third higher than it was before the program began. One possible explanation for the improved attendance is that teachers may be motivated by a class full of students. An alternative explanation may be that parents of scholarship recipients started to hold teachers more accountable than they had previously. There is indirect evidence of the second explanation in Mexico's rural school-based management program (Gertler, Patrinos, and Rubio-Codina 2006). King and Ozler (2001) found that parental involvement in schools in Nicaragua increased teacher attendance. Kremer, Miguel, and Thornton (2004) also found evidence of positive externalities associated with parental involvement: boys' attendance increased in treatment schools, as did test scores for both boys and girls.

### BOX 2.6 Local Monitoring of Education Can Help Reduce Teacher Absenteeism

In some Indian villages, such as in Khetloi in Rajasthan, village leaders and parents have helped increase the quality of education by monitoring the schools. In Himachal Pradesh, too, cooperative action among parents, and between parents and teachers, has resulted in greater accountability in the system. However, in some states such as Tamil Nadu, after some misuse of power by the *panchayat* (village council) leaders, the responsibility was shifted back to the state government. In Karnataka, the state government refused to shift payment of salaries to the *panchayats*, fearing that the salaries would not reach staff. Instead the state established school improvement committees in village schools whose members consist of *panchayat* leaders and parents. Teacher's leave, for example, has to be approved by these committees. Anecdotal information suggests that teacher absenteeism has decreased.

Source: Annamalai (2001).

able to apply social pressure to providers. Finally, as long as beneficiaries have real demand for the service, they have a greater incentive to monitor and thus are more willing to punish or reward providers than are central-level or independent authorities.

Civil society organizations also can play a role in reducing corruption in education. They work at the local level, can inform the public about what is going on, and can encourage debate on corruption. They have influence over a variety of stakeholders. In addition, they can work with their clients and providers to raise awareness and ensure access to information. Such groups thus contribute more generally to greater transparency in education systems and practices (Transparency International 2005).

## CONCLUSIONS

Education is a necessary condition for the achievement of the Millennium Development Goals, and thus a necessary condition for social and economic development and for personal empowerment. For education to be able to help citizens and nations

reap its potential benefits, it must function in an effective manner. As this chapter shows, corruption, which hampers all development efforts, is a debilitating presence in the education sector. The focus here has been to highlight the damage from corruption in one of the most important aspects of education, teacher absenteeism. Recent, albeit limited, studies find convincing evidence that teacher absenteeism is a significant problem in many countries, wasting financial resources and shortchanging young students. Although this chapter has discussed some key determinants of teacher absenteeism and sketched out some policy options, it is quite clear that additional data from more countries are needed on issues surrounding teacher absenteeism. Effective strategies for reducing teacher absenteeism cannot be formulated until the extent of the problem is known and its determinants better understood.

Certainly, not all teacher absences are indications of corruption; but all absences have a negative impact on student learning. The costs, both monetary and educational, are just as high when absences are excusable as when they are not.

Future dialogue on issues of corruption in education is necessary. In particular, issues of teacher absenteeism require additional analyses. Priority issues include the need for more monitoring, additional research, and comparable information that can help us analyze situations of absenteeism in a number of countries. Additional experimentation and evaluation of positive approaches that show promising results is also necessary. Lessons learned from tackling the problems associated with teacher absenteeism can also be applied to other corruption issues in the education sector.

## REFERENCES

- Akhmadi, S. U., and D. Suryadarma. 2004. "When Teachers Are Absent: Where Do They Go and What Is the Impact on Students?" SMERU Research Institute, Jakarta.
- Alcazar, L., F. H. Rogers, N. Chaudhury, J. Hammer, M. Kremer, and K. Muralidharan. 2006. "Why Are Teachers Absent? Probing Service Delivery in Peruvian Primary Schools." Development Economics Department, World Bank, Washington, DC.
- Allen, S. G. 1981. "An Empirical Model of Work Attendance." *Review of Economics and Statistics* 63 (1): 77–87.
- Álvarez, J., V. Garcia Moreno, and H. A. Patrinos. 2006. "Institutional Effects as Determinants of Learning Outcomes: Exploring State Variations in Mexico." Human Development Department, World Bank, Washington, DC.
- Annamalai, M. 2001. "Effective Government Schools." *Journal of Literacy and Education in Developing Societies* 1 (20). <http://www.servintfree.net/~aidmn-ejournal/publications/2001-11/EffectiveGovernmentSchools.html>.
- Barmby, T. A., and J. G. Treble. 1991. "Absenteeism in a Medium-Sized Manufacturing Plant." *Applied Economics* 23 (2): 161–66.
- Banerjee, A., and E. Duflo. 2006. "Addressing Absence." *Journal of Economic Perspectives* 20 (1): 117–32.
- Barro, R. J. 1991. "Economic Growth in a Cross-Section of Countries." *Quarterly Journal of Economics* (May): 407–44.
- . 2001. "Human Capital and Growth." *American Economic Review* 91 (2, *Papers and Proceedings*): 12–17.

- Becker, G. S. 1964. *Human Capital*. New York: Columbia University Press.
- . 1968. “Crime and Punishment: An Economic Approach.” *Journal of Political Economy* 76 (2): 169–217.
- Bellver, A., and D. Kaufmann. 2005. “Transparenting Transparency: Initial Empirics and Policy Applications.” World Bank Institute, Washington, DC.
- Belot, M., and D. Webbink. 2006. “The Lost Generation: The Effect of Teacher Strikes on Students. Evidence from Belgium.” University of Essex and CPB Netherlands Bureau for Economic Policy Analysis, The Hague, Netherlands.
- Bentaouet Kattan, R., and N. Burnett. 2004. “User Fees in Primary Education.” Education for All Working Paper 30108, Human Development Network, World Bank, Washington, DC.
- Bray, M. 2003. *Adverse Effects of Private Supplementary Tutoring: Dimensions, Implications and Government Responses*. Paris: IIEP-UNESCO.
- Bruns, B., A. Mingat, and R. Rakotomalala. 2003. *Achieving Universal Primary Education by 2015: A Chance for Every Child*. Washington, DC: World Bank.
- Chapman, D. W. 1991. “The Rise and Fall of Education Management Information Systems in Liberia.” *Journal of Educational Policy* 6 (2): 133–43.
- Chaudhury, N., J. Hammer, M. Kremer, K. Muralidharan, and F. H. Rogers. 2006. “Missing in Action: Teacher and Health Worker Absence in Developing Countries.” *Journal of Economic Perspectives* 20 (1): 91–116.
- Chua, Y. T. 1999. “Robbed: An Investigation of Corruption in Philippine Education.” Philippine Center for Investigative Journalism, Quezon City.
- CIET (Community Information, Empowerment and Transparency). “Accountability in Health Services.” [http://www.ciet.org/en/documents/themes\\_docs/2006220164820.pdf](http://www.ciet.org/en/documents/themes_docs/2006220164820.pdf).
- Cockroft, L. 1998. “Corruption and Human Rights: A Crucial Link.” Working Paper, Transparency International, Berlin.
- Cooter, R., and T. Ulen. 2000. *Law and Economics*. Reading, MA: Addison Wesley Longman.
- Cox, C. 2006. “Policy Formation and Implementation in Secondary Education Reform: The Case of Chile at the Turn of the Century.” Education Working Paper Series 3, Human Development Network, World Bank, Washington, DC.
- Das, J., D. Dercon, J. Habyarimana, and P. Krishnan. 2005. “Teacher Shocks and Student Learning: Evidence from Zambia.” Policy Research Working Paper 3602, World Bank, Washington, DC.
- Duarte, J. 2001. “Política y Educación: Tentaciones particularistas en la Educación Latinoamericana.” In *Economía Política de las Reformas Educativas en América Latina*, ed. S. Martinic and M. Pardo. Santiago: CIDE-PREAL.
- Eckstein, M. A. 2003. *Combating Academic Fraud: Towards a Culture of Integrity*. Paris: IIEP-UNESCO.
- Foweraker, J. 1993. *Popular Mobilization in Mexico: The Teachers’ Movement 1977–87*. Cambridge: Cambridge University Press.
- Friedman, M. 1955. “The Role of Government in Education.” In *Economics and the Public Interest*, ed. R. A. Solo. New Brunswick, NJ: Rutgers University Press.
- Gentili, P., and D. Suarez. 2004. “La Conflictividad Educativa en América Latina.” Foro Latinoamericano de Políticas Educativas, Chile.
- Gertler, P., H. Patrinos, and M. Rubio-Codina. 2006. “Empowering Parents to Improve Education: Evidence from Rural Mexico.” Policy Research Working Paper 3935, World Bank, Washington, DC.
- Glewwe, P., N. Ilias, and M. Kremer. 2003. “Teacher Incentives.” Department of Economics, Harvard University, Cambridge, MA.

- Becker, G. S. 1964. *Human Capital*. New York: Columbia University Press.
- . 1968. "Crime and Punishment: An Economic Approach." *Journal of Political Economy* 76 (2): 169–217.
- Bellver, A., and D. Kaufmann. 2005. "Transparenting Transparency: Initial Empirics and Policy Applications." World Bank Institute, Washington, DC.
- Belot, M., and D. Webbink. 2006. "The Lost Generation: The Effect of Teacher Strikes on Students. Evidence from Belgium." University of Essex and CPB Netherlands Bureau for Economic Policy Analysis, The Hague, Netherlands.
- Bentaouet Kattan, R., and N. Burnett. 2004. "User Fees in Primary Education." Education for All Working Paper 30108, Human Development Network, World Bank, Washington, DC.
- Bray, M. 2003. *Adverse Effects of Private Supplementary Tutoring: Dimensions, Implications and Government Responses*. Paris: IIEP-UNESCO.
- Bruns, B., A. Mingat, and R. Rakotomalala. 2003. *Achieving Universal Primary Education by 2015: A Chance for Every Child*. Washington, DC: World Bank.
- Chapman, D. W. 1991. "The Rise and Fall of Education Management Information Systems in Liberia." *Journal of Educational Policy* 6 (2): 133–43.
- Chaudhury, N., J. Hammer, M. Kremer, K. Muralidharan, and F. H. Rogers. 2006. "Missing in Action: Teacher and Health Worker Absence in Developing Countries." *Journal of Economic Perspectives* 20 (1): 91–116.
- Chua, Y. T. 1999. "Robbed: An Investigation of Corruption in Philippine Education." Philippine Center for Investigative Journalism, Quezon City.
- CIET (Community Information, Empowerment and Transparency). "Accountability in Health Services." [http://www.ciet.org/en/documents/themes\\_docs/2006220164820.pdf](http://www.ciet.org/en/documents/themes_docs/2006220164820.pdf).
- Cockroft, L. 1998. "Corruption and Human Rights: A Crucial Link." Working Paper, Transparency International, Berlin.
- Cooter, R., and T. Ulen. 2000. *Law and Economics*. Reading, MA: Addison Wesley Longman.
- Cox, C. 2006. "Policy Formation and Implementation in Secondary Education Reform: The Case of Chile at the Turn of the Century." Education Working Paper Series 3, Human Development Network, World Bank, Washington, DC.
- Das, J., D. Dercon, J. Habyarimana, and P. Krishnan. 2005. "Teacher Shocks and Student Learning: Evidence from Zambia." Policy Research Working Paper 3602, World Bank, Washington, DC.
- Duarte, J. 2001. "Política y Educación: Tentaciones particularistas en la Educación Latinoamericana." In *Economía Política de las Reformas Educativas en América Latina*, ed. S. Martinic and M. Pardo. Santiago: CIDE-PREAL.
- Eckstein, M. A. 2003. *Combating Academic Fraud: Towards a Culture of Integrity*. Paris: IIEP-UNESCO.
- Foweraker, J. 1993. *Popular Mobilization in Mexico: The Teachers' Movement 1977–87*. Cambridge: Cambridge University Press.
- Friedman, M. 1955. "The Role of Government in Education." In *Economics and the Public Interest*, ed. R. A. Solo. New Brunswick, NJ: Rutgers University Press.
- Gentili, P., and D. Suarez. 2004. "La Conflictividad Educativa en América Latina." Foro Latinoamericano de Políticas Educativas, Chile.
- Gertler, P., H. Patrinos, and M. Rubio-Codina. 2006. "Empowering Parents to Improve Education: Evidence from Rural Mexico." Policy Research Working Paper 3935, World Bank, Washington, DC.
- Glewwe, P., N. Ilias, and M. Kremer. 2003. "Teacher Incentives." Department of Economics, Harvard University, Cambridge, MA.

- Gupta, S., H. Davoodi, and E. Tiongson. 2000. "Corruption and the Provision of Health Care and Education Services." IMF Working Paper 00/116, International Monetary Fund, Washington, DC.
- Hallak, J., and M. Poisson. 2001. "Ethics and Corruption in Education." Paris: IIEP-UNESCO.
- . 2005. "Ethics and Corruption in Education—an Overview." *Journal of Education for International Development*. [http://www.usaid.gov/our\\_work/democracy\\_and\\_governance/publications/ac/sector/education.doc](http://www.usaid.gov/our_work/democracy_and_governance/publications/ac/sector/education.doc).
- Hanushek, E. A., and D. D. Kimko. 2000. "Schooling, Labor-Force Quality, and the Growth of Nations." *American Economic Review* 90 (5): 1184–1208.
- Hanushek, E. A., and L. Wößmann. 2007. "The Role of Education Quality for Economic Growth." World Bank Policy Research Working Paper 4122. Human Development Network, Education Unit, World Bank, Washington, DC.
- Heyneman, S. 2004. "Education and Corruption." *International Journal of Educational Development* 24 (6): 637–48.
- Human Rights Watch. 2001. "Scared at School: Sexual Violence against Girls in South African Schools." Human Rights Watch, New York.
- Jacob, B. A., and S. D. Levitt. 2003. "Rotten Apples: An Investigation of the Prevalence and Predictors of Teacher Cheating." *Quarterly Journal of Economics* 118 (3): 843–78.
- King, E. M., and B. Ozler. 2001. "What's Decentralization Got to Do with Learning? Endogenous School Quality and Student Performance in Nicaragua." Development Economics Department, World Bank, Washington, DC.
- Klitgaard, R. 1998. "International Cooperation against Corruption." *Finance and Development* (March): 3–6.
- Kremer, M., N. Chaudhury, F. Halsey Rogers, K. Muralidharan, and J. Hammer. 2005. "Teacher Absence in India: A Snapshot." *Journal of the European Economic Association* 3 (2–3): 658–67.
- Kremer, M., and D. Chen. 2001. "An Interim Report on a Teacher Attendance Incentive Program in Kenya." Development Economics Department, Harvard University Cambridge, MA.
- Kremer, M., E. Miguel, and R. Thornton. 2004. "Incentives to Learn." Development Economics Department, Harvard University, Cambridge, MA.
- Mauro, P. 1998. "Corruption and the Composition of Government Expenditure." *Journal of Public Economics* 69: 263–79.
- Murillo, M. V., M. Tommasi, L. Ronconi, and J. Sanguinetti. 2002. "The Economic Effects of Unions in Latin America: Teachers' Unions and Education in Argentina." Latin American Research Network Working Paper R-463. Inter-American Development Bank, Washington, DC.
- OECD (Organisation for Economic Co-operation and Development). 2005. *Teachers Matter: Attracting, Developing and Retaining Effective Teachers*. Paris: OECD.
- Oxfam. 2001. "Education Charges: A Tax on Human Development." Oxfam Briefing Paper 3, Oxfam, London.
- Pritchett, L. 2001. "Where Has All the Education Gone?" *World Bank Economic Review* 15 (3): 367–91.
- Probe Team. 1999. *Public Report on Basic Education in India*. Oxford: Oxford University Press.
- Psacharopoulos, G., and H. A. Patrinos. 2004. "Returns to Investment in Education: A Further Update." *Education Economics* 12 (2): 111–34.
- PricewaterhouseCoopers. 2005. "Expenditure Tracking Study: Interim Report."
- Reinikka, R., and J. Svensson. 2006. "Using Micro-Surveys to Measure and Explain Corruption." *World Development* 34 (2): 359–70.

- Rogers, F. H., J. R. Lopez-Calix, N. Cordoba, N. Chaudhury, J. Hammer, M. Kremer, and K. Muralidharan. 2004. "Teacher Absence and Incentives in Primary Education: Results from a National Teacher Tracking Survey in Ecuador." Development Economics Department, World Bank, Washington, DC.
- Sapsford, D., and Z. Tzannatos. 1993. *The Economics of the Labour Market*. Houndmills, U.K.: Macmillan.
- Sawada, Y. 1999. "Community Participation, Teacher Effort, and Educational Outcomes: The Case of El Salvador's EDUCO Program." William Davidson Institute Working Paper 307, University of Michigan, Ann Arbor, MI.
- Schleicher, A., M. Siniscalco, and T. N. Postlethwaite. 1995. "The Conditions of Primary Schools: A Pilot Study in the Least Developed Countries." UNESCO and UNICEF, Paris.
- Schultz, T. P. 1997. "Assessing the Productive Benefits of Nutrition and Health: An Integrated Human Capital Approach." *Journal of Econometrics* 77: 141–58.
- . 2002. "Why Governments Should Invest More to Educate Girls." *World Development* 30 (2): 207–25.
- Tanzi, V., and H. Davoodi. 1997. "Corruption, Public Investment, and Growth." IMF Working Paper 97/139, International Monetary Fund, Washington, DC.
- Times of India*. 2006. "Send Kids to School or Else . . ." August 6.
- Transparency International. 2005. "Stealing the Future: Corruption in the Classroom." Berlin.
- UNESCO-UIS/OECD. 2005. *Education Trends in Perspective—Analysis of the World Education Indicators*. <http://www.uis.unesco.org/TEMPLATE/pdf/wei/WEI2005.pdf>.
- Vegas, E., and J. De Laat. 2003. "Do Differences in Teacher Contracts Affect Student Performance? Evidence from Togo." Development Economics Department, World Bank, Washington, DC.
- World Bank. 2003. *World Development Report 2004: Making Services Work for Poor People*. Washington, DC: World Bank and Oxford University Press.
- . 2004. "Papua New Guinea: Public Expenditure Service Delivery." World Bank, Washington, DC.
- . 2006a. "Mexico: Making Education More Effective by Compensating for Disadvantages, Introducing School-Based Management, and Enhancing Accountability: A Policy Note." Report 35650-MX, World Bank, Washington DC.
- . 2006b. *World Development Indicators*. Washington, DC: World Bank.