# Review of international research on factors underlying teacher absentecism 

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## Overview

Throughout the Pacific Region, teacher absenteeism has posed a long-standing challenge. This research review examines multiple factors that may relate to teacher absenteeism, with a focus on contexts comparable to the Pacific Region. International research points to five themes to consider in relation to teacher absenteeism: pay structure, management, working conditions, community conditions, and social and cultural responsibilities. While variations exist based on different country contexts, this research review generates a collection of key factors that can guide the exploration of root causes of teacher absenteeism in the Pacific Region.

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## Summary

Teacher absenteeism poses a major challenge across the jurisdictions within the Regional Educational Laboratory Pacific Region-and more broadly on a global scale. Its implications are wide-ranging, from inhibiting student achievement and attendance (Harris van Keuren, 2009) to draining school resources and increasing administrative time spent on replacing classroom instructors and managing attendance (Obeng-Denteh, Yeboah, Sam, \& Monkah, 2011). Addressing the impact of teacher absenteeism requires information about the underlying causes and conditions that keep teachers from the classroom.

This review includes international research from countries that are likely to face key economic and environmental conditions comparable to those faced by some jurisdictions in the Pacific Region.

Teachers in the Pacific Region were absent an average of 11 days during the 1996/97 school year, which was considerably higher than the U.S. average of 7 sick and personal leave days (PREL \& Research and Development Cadre, 1998). The top five reasons that teachers in the Pacific Region were absent were personal illness, funeral leave, family member illness, meetings and workshops, and vacation.

The developmental, social, and economic costs of teacher absenteeism can be felt among students, schools, and, by extension, the wider community. As such, it is critical to understand the causes of low teacher attendance and identify policy-oriented solutions to mitigate the problem. This research review explores key factors related to teacher absenteeism to inform a deeper understanding of the characteristics, context, and social influences that may contribute to high absence rates. It organizes factors into five main groups: pay structure, management, working conditions, community conditions, and social and cultural responsibilities. Predictors of absenteeism vary across place and context. Given the diversity of Pacific Region communities, stakeholders should examine the extent to which the context and results of the research presented here correspond to the social, structural, cultural, and environmental characteristics of their own contexts.

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## Why this study?

Teacher absenteeism can have negative effects on an entire school system, from lowering student achievement and attendance to damaging school reputations to broader economic losses (Harris van Keuren, 2009). Recognizing that teacher absenteeism affects the equity of education access for students and functions as a school-based determinant of their academic success, the U.S. Department of Education's Office for Civil Rights included teacher absences as a new item on its biennial Civil Rights Data Collection survey in 2009 (Miller, 2012). According to recent U.S. estimates, for every 10 days a teacher is absent in a school, there is a decline in secondary standardized math scores similar to that which occurs when an experienced teacher is replaced by a novice teacher (Salami, Galibaka, Birhanu, \& Ressaisi, 2013). International sources likewise assert that low teacher attendance is related to low student attendance (Black, Seder, \& Kekahio, 2014), suggesting mutually reinforcing implications of teacher absenteeism for overall student performance (Banerjee, King, Orazem, \& Paterno, 2012; Benveniste, Marshall, \& Santibañez, 2007).

In addition to the implications for student attendance and achievement, teacher absenteeism drains school resources and increases administrative time spent on replacing classroom instructors and managing attendance (Obeng-Denteh et al., 2011). Some 10-24 percent of recurring primary education expenditures worldwide are lost to teacher absenteeism, including an estimated $\$ 16$ million in Ecuador and up to $\$ 2$ billion in India (World Bank, 2011, as cited in Salami et al., 2013). In the United States alone, an estimated $\$ 4$ billion is tied up in compensating for teacher absenteeism (Miller, 2012). The damaging effect of teacher absenteeism on students, schools, and, by extension, communities suggests a need to understand the causes of low teacher attendance and to identify systemic and policyoriented solutions that mitigate absenteeism.

This research review increases the knowledge base of Regional Educational Laboratory Pacific Region educators and community stakeholders about teacher absenteeism, particularly teacher absenteeism in countries outside the United States. This increased knowledge base will allow stakeholders to leverage and apply insights from the research literature to improve teacher attendance rates as they explore the root causes of absenteeism in their local contexts. Additionally, this review may spark interest in further research, information gathering, or assessment of likely causes and conditions associated with absenteeism in the Pacific Region. (See appendix A for information on the methodology used for this report).

This review prioritizes international research that focuses on countries with economies similar to those in the Pacific Region over U.S. research because such countries are more likely to share key economic and environmental conditions that pose challenges for effective education delivery with the Pacific Region jurisdictions (see references for a list of selected U.S. literature). Research on the following countries is included: Bangladesh, Ecuador, India, Indonesia, Lao People's Democratic Republic, Malawi, Nicaragua, Nigeria, Pakistan, Peru, Tanzania, Uganda, and Zambia (see appendix B for additional information on absenteeism in international contexts). The factors presented in this review speak to education challenges common in societies that experience economic stagnation, a severe lack of resources for education, and issues of cultural dissonance or cultural incompatibility with institutionalized school norms and practices.

## The extent of teacher absenteeism in the Pacific Region

Throughout the Pacific Region, teacher absenteeism is a pervasive problem and an area in long-standing need of improvement. Governing boards and education personnel throughout the region have repeatedly expressed a desire to understand, address, and reduce the frequency of teacher absenteeism and to correct data sources that report low teacher absenteeism because anecdotal evidence suggests that the sources are inaccurate.

The most comprehensive study to date on teacher absenteeism in the Pacific Region was conducted by PREL and Research and Development Cadre (1998) more than 16 years ago. It found that teachers were absent across all jurisdictions (American Samoa, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia [Chuuk, Kosrae, Pohnpei, and Yap], Guam, Hawaii, the Republic of the Marshall Islands, and the Republic of Palau) an average of 11 days each school year, with averages per jurisdiction ranging from 5 to 22 days-considerably higher than the U.S. national average ( 7 sick and personal leave days; table 1; PREL \& Research and Development Cadre, 1998). The top five reasons why teachers were absent were personal illness, funeral leave, family member illness, meetings and workshops, and vacation. (Other reasons for teacher absence include administrative leave, child care, family responsibilities, community responsibilities, maternity leave, storms or heavy rains, and education leave.) A lack of substitute teachers and policies to address absenteeism at the time made the problem of high teacher absenteeism particularly acute.

More recent sources of data indicate that high absenteeism persists in the Pacific Region. In 2011/12 elementary school teachers in the Federated States of Micronesia attended, on average, 90 percent of the school year, while secondary teachers attended 85 percent of the school year (Federated States of Micronesia, National Department of Education, 2012). In 2010 the United Nations Children's Fund reported that many children in the Pacific Region, including in the Republic of the Marshall Islands, were not receiving the

Table 1. Average number of days absent across the Pacific Region, total and for top five reasons, 1996/97

| Jurisdiction | Total | Personal illness | Funeral leave | Family member illness | Meetings and workshops | Vacation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| American Samoa | 6.0 | 2.1 | 0.8 | 0.6 | 0.3 | 0.1 |
| Commonwealth of the Northern Mariana Islands | 6.8 | 2.3 | 0.7 | 0.3 | 0.9 | 1.4 |
| Federated States of Micronesia |  |  |  |  |  |  |
| Chuuk | 22.3 | 5.0 | 3.4 | 2.8 | 0.7 | 0.9 |
| Kosrae | 5.4 | 1.2 | 1.2 | 0.5 | 0.4 | 0.1 |
| Pohnpei | 12.3 | 3.5 | 1.5 | 0.4 | 0.5 | 0.2 |
| Yap | 15.0 | 1.7 | 2.2 | 1.3 | 1.2 | 2.3 |
| Guam | 8.2 | 2.4 | 0.4 | 1.1 | 0.2 | 0.2 |
| Hawaii | 9.0 | 2.3 | 0.3 | 0.6 | 2.2 | 0.2 |
| Republic of the Marshall Islands | 18.1 | 2.5 | 2.9 | 1.1 | 2.0 | 0.9 |
| Republic of Palau | 10.6 | 3.6 | 1.7 | 1.0 | 0.8 | 0.4 |

Source: PREL \& Research and Development Cadre, 1998.

850-1,000 hours of instruction per year required by law because of teacher absenteeism (United Nations Children's Fund [UNICEF], 2010). A 2013 assessment of employee attendance rates in Guam public schools found that absence rates ranged from 10 percent to 19 percent across all regions of the territory (Fernandez, 2013).

Many challenges exist in accurately reporting teacher absence rates because systems to document teacher attendance are not always in place across the Pacific Region jurisdictions, particularly among the outer-island communities and schools, which have little to no online communication capability (Wrembeck \& Fenlon, 2010). Additionally, in emergent nations weak school management systems make addressing teacher absenteeism difficult because attendance records are not kept (Kadzamira, 2006).

## What is known about why teachers are absent?

There is limited recent research on causes of teacher absenteeism specific to the Pacific Region. The latest studies were conducted 15 or more years ago (PREL \& Research and Development Cadre, 1998; Uehara, 1999). This section classifies factors found in international research that are associated with teacher absenteeism into five broad categories (table 2) and discusses research related to those factors.

## Pay structure

Pay structure, including how teachers are compensated, contracted, and organized in terms of professional level, can correspond to absenteeism. While teacher salary can be linked with absence rates, how salary affects absenteeism varies by country. Four factors involving pay structure that relate to teacher absenteeism are:

Table 2. Factors related to pay structure, management, working conditions, community conditions, and social and cultural responsibilities should be examined to further understand teacher absenteeism

| Category | Factor identified in research |
| :---: | :---: |
| Pay structure | - Salary and compensation <br> - Contractual status <br> - Working relationship with the school <br> - Seniority and professional standing |
| Management | - School type (private or public) <br> - School governance (locally or centrally controlled) <br> - Enforcement of sanctions <br> - Community accountability |
| Working conditions | - School culture <br> - Exhaustion, stress, and burnout <br> - School facilities and infrastructure <br> - Classroom structure (multigrade or single grade) <br> - Professional development or other duties |
| Community conditions | - School location (urban or rural, proximity to paved roads, remoteness) <br> - Proximity to school <br> - Environmental and health conditions <br> - Socioeconomic conditions |
| Social and cultural responsibilities | - Illness, funeral attendance, and care of family members <br> - Social and cultural norms, including expectations for female teachers |
| Source: Authors' analysis based on data from literature review. |  |

Many challenges exist in accurately reporting teacher absence rates because systems to document teacher attendance are not always in place across the Pacific Region jurisdictions

- Salary and compensation. Research on teacher absenteeism has identified a relationship between days away from school and salary or compensation. In Tanzania teachers identified low salary as the greatest barrier to meeting their priorities: the ability to care and provide for their children, to be able to live in a satisfactory home that offers security and emotional stability, and the money necessary to attain these goals (Tao, 2013).

Teachers in emergent nations commonly take on secondary employment to supplement their income. Stakeholders in Malawi reported that teacher absenteeism is a major problem for the region because teachers cannot afford to live on their teaching salary alone (Kadzamira, 2006). As stated by one Malawi Ministry of Education official, "Teacher absenteeism is high. Teachers go vending or get secondary employment. For example, few teachers go for marking exam papers nowadays. They say it's better to do other jobs" (Kadzamira, 2006, p. 12). Teachers in Tanzania acknowledged that they had even left school during the teaching day to look for other work (Tao, 2013).

- Contractual status. In Indonesia contract teachers are absent at significantly higher rates than noncontract teachers (Usman \& Suryadarma, 2007). Generally, contract teachers are non-civil service employees who are hired by local schools on fixed-term contracts and who often have less professional training than civil servant teachers and are paid less (Muralidharan \& Sundararaman, 2013). And contract teachers' prospects of acquiring permanent teaching positions are low (Usman \& Suryadarma, 2007).
- Working relationship with the school. In Papua and West Papua, Indonesia, the nature of teacher working relationships with the school was found to potentially influence teacher absenteeism. In private institutions teachers with indirect working relationships with the school (that is, when the school contracts teachers through the government) had higher absence rates than teachers with direct working relationships (that is, when the school contracts teachers directly; UNICEF, 2012). Private and foundation schools with a high proportion of civil servant teachers (who have indirect working relationships with the school) had high absenteeism rates (36-37 percent), while teachers recruited directly by the schools had the lowest absence rate of all teacher categories, possibly because they felt greater accountability to or investment in their institutions (UNICEF, 2012).
- Seniority and professional standing. In emergent nations teacher professional levels (related to level of education and credentialing) and age-related seniority contribute to high absence rates (Abadzi, 2009). In Indonesia highly educated teachers and headmasters exhibited higher absence rates than grade teachers (for example, teachers who teach subjects other than physical education and religion). Better opportunities and availability of extra jobs outside of school for highly educated teachers were not found to be a significant factor in teacher absence rates. Headmasters were absent at higher rates than grade-level teachers because of a lack of daily oversight by the District Education Office (Usman \& Suryadarma, 2007).

Pay structure, including how teachers are compensated, contracted, and organized in terms of professional level, can correspond to absenteeism

Research reports mixed findings on how management (of schools and teachers) relates to teacher absenteeism. Four factors involving management that relate to teacher absenteeism are:

- School type (public or private). In some emergent nations private schools have lower teacher absenteeism rates than public schools. In Lagos State, Nigeria, private schools had higher rates of teaching activity and lower teacher absenteeism than public schools (Tooley, Dixon, \& Olaniyan, 2005). Contrary to the conventional notion that private schools serve the needs of small minorities from wealthy families, "a lower cost private sector has emerged to meet the demands of poor households," delivering higher quality education than public and government schools do (Tooley et al., 2005, p. 125). This trend appears not only in Nigeria, but across Sub-Saharan Africa, including in Malawi and Uganda. While cautioning against the unconditional acceptance of this claim (as private schools also can exhibit considerable problems), Tooley et al. (2005) describe government school conditions-such as overpopulated classrooms, high student poverty, and poor school planning-that likely contribute to higher absence rates among public school teachers.

Additionally, in Lao People's Democratic Republic teachers at private schools were much less likely to be absent than teachers at public schools (Benveniste et al., 2007). Based on a series of surprise visits across a sample of 155 public and private schools (with the number of teachers visited per school, up to 20, dependent on school size), 4.4 percent of private school teachers were absent, while 7.4 percent of public school teachers were absent. This difference was statistically significant; however, no specific reasons were given to explain this finding.

- School governance (locally or centrally controlled). In primary schools in India, "locally controlled schools had marginally higher absence rates than schools run by the state government" (Kremer, Chaudhury, Rogers, Muralidharan \& Hammer, 2005, p. 658).
- Enforcement of sanctions. The enforcement of sanctions may vary within schools and lead to further absenteeism by teachers who do not experience the same consequences as other teachers (Kremer et al., 2005). The reasons for poor attendance in India can be related to the power or influence teachers carry at their schools, based on factors such as professional background, position, and personal characteristics. While the risk of being dismissed for excessive absenteeism is low in India overall, "the costs and benefits of attending school on a given day could vary depending on...[teachers'] vulnerability to sanctions" (Kremer et al., 2005, p. 662).

Contracted and conventional teachers had similar absence rates, even though teachers who were hired under a contract were not paid as well as conventional teachers. The lack of relationship between pay and teacher absenteeism could be because "teachers feel little risk of being fired for absence" (Kremer et al., 2005, p. 661). Only one head teacher out of 3,000 public schools had ever discharged a teacher due to excessive absenteeism. Teachers regarded their vulnerability to sanctions as being related to how and how often they were supervised, as well as to their "level of power" (Kremer et al., 2005, p. 662). This power association is apparent in significantly higher absence rates for men, older teachers, head teachers, and teachers with more education and experience (Kremer et al., 2005).

Research reports mixed findings on how management (of schools and teachers) relates to teacher absenteeism

- Community accountability. Involving a community in setting teacher expectations may impact teacher absenteeism. In Honduras absence rates and community accountability are related (World Bank, 2008, as cited in Abadzi, 2009). Absence rates decreased when local community members were involved in setting teacher salaries. According to a 2008 World Bank project, "community-managed schools" were open more days per year than other schools (Abadzi, 2009, p. 274). Community-managed schools are run by committees that comprise family and community members who decide on matters of enrollment, curriculum, finances, and other aspects of running a school. However, more rigorous research is needed into why these community-run schools were more successful (Abadzi, 2009). Conversely, in Indonesian public primary schools community involvement appeared to be an ineffective way to increase teacher attendance (Usman \& Suryadarma, 2007).


## Working conditions

The nature of working conditions at a school, such as the culture of the school, its physical condition, and responsibilities or expectations assigned to teachers, can influence absence rates. Five factors involving working conditions that relate to teacher absenteeism are:

- School culture. Poor attendance by some teachers may have a ripple effect on others at their school. At one Ghana school district absenteeism affected the motivation of fellow teachers, who were left to take on additional planning and instruction (Obeng-Denteh et al., 2011).
- Exhaustion, stress, and burnout. Teacher stress and the number of days spent away from school have also been found to be correlated. Teachers who attributed their absenteeism to stress (measured according to self-reported perceptions of low personal accomplishment, emotional exhaustion, and depersonalization or detachment from students) were more likely to depart the teaching profession altogether (PREL \& Research and Development Cadre, 1998).

In Cyprus teachers' personality traits and job stressors were found to lead to burnout (a combination of emotional exhaustion, depersonalization, and lack of a sense of personal accomplishment), which may influence absence rates. One of the most prevalent factors related to job burnout was dealing with students' behavioral problems and time management issues (Kokkinos, 2007).

- School facilities and infrastructure. In six countries-Bangladesh, Ecuador, India, Indonesia, Peru, and Uganda-primary schools and health facilities with poorer infrastructure (based on an index that included "the availability of a toilet..., covered classrooms, nondirt floors, electricity and a school library") had higher absenteeism rates (Chaudhury, Hammer, Kremer, Muralidharan, \& Rogers, 2006, p. 104). In India teachers were less likely to be absent at schools that were inspected regularly (Kremer et al., 2005). This was also the case in Indonesia, where teachers at schools with inadequate facilities (such as lack of electricity or working toilets) were more likely than teachers at schools with adequate conditions to be absent (Usman \& Suryadarma, 2007).
- Classroom structure (multigrade or single grade). Structuring a school to include multigrade classrooms can result in higher teacher absence rates. Across several Indian states and in Indonesia teachers were more likely to be absent in schools where multigrade teaching took place (Usman \& Suryadarma, 2007). Teachers may experience more stress in a multigrade setting, though no clear reasons for this finding have been identified (Usman \& Suryadarma, 2007).

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- Professional development or other duties. The need to attend workshops or meetings was a frequent reason for teacher absenteeism in the Pacific Region, which may suggest difficulty in planning for professional development opportunities or for teachers to fulfill other professional duties (PREL \& Research and Development Cadre, 1998; Uehara, 1999).


## Community conditions

Socioeconomic, health, and environmental conditions have all been cited as overall reasons for high teacher absence rates. The location of schools and communities in relation to health care facilities and other basic necessities, such as clean water, affect a teacher's ability to show up and teach (Tao, 2013; Kadzamira, 2006). These issues are especially apparent in rural areas (Kadzamira, 2006). Four factors involving community conditions are related to teacher absenteeism:

- School location (urban or rural, proximity to paved roads, remoteness). In Papua and West Papua, Indonesia, school location is a significant factor in absence rates among administrators and teachers. Geographically, principals from urban schools had the highest attendance rates ( 67 percent), followed by principals from the easy-to-access lowland district schools ( 59 percent); principals from the highland district schools had the lowest (33 percent; UNICEF, 2012).

A school's proximity to paved roads can also impact absenteeism. Teachers in India were less likely to be absent when their school was located closer to a paved road (Kremer et al., 2005), though in Indonesia the presence of paved roads near schools had no significant impact on teacher absence rates (Usman \& Suryadarma, 2007). While living close to paved roads may make it easier for teachers to reach school, it also makes leaving school in the middle of the day easier and affordable (Usman \& Suryadarma, 2007).

In Nigeria teachers in urban schools had slightly lower absentee rates than teachers in rural schools, which was attributed to more regular school supervision and higher visibility of inspectors in urban locations (Adelabu, 2005). In India teacher absenteeism was higher in the rural, less developed regions than in the most developed areas. Schools were sometimes staffed by a single teacher, and they closed completely when that teacher did not come to work, which may have discouraged students and families and thereby increased student absenteeism (Chaudhury et al., 2006; Rogers \& Vegas, 2009).

Across multiple countries small schools (especially those in rural settings in emergent nations) are most at risk for high teacher absence. Reasons for this phenomenon include that small schools in remote communities struggle to attract qualified and dedicated teachers; that rural schools tend to have poorer infrastructure, which deters attendance; and that traveling away from remote areas (for example, to visit a doctor or attend in-service training) requires long journeys and more missed days of school (UNICEF, 2012; Harris van Keuren, 2009; Mulkeen, 2005).

- Proximity to school. A teacher's commuting distance to school may have positive or negative effects on absenteeism rates. In Bangladesh, Ecuador, India, Indonesia, Peru, and Uganda teachers local to the school community tended to be absent less often than those who commuted from outside the community (Alcázar et al., 2006; Chaudhury et al., 2006). Similarly, teachers in Papua and West Papua, Indonesia, who lived in the same district as their schools had an average absence rate

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of 19 percent, compared with 25 percent for teachers who lived farther out in a subdistrict (UNICEF, 2012).

However, another study in Indonesia yielded contradictory results, showing no statistically significant differences in absenteeism between locally born teachers who chose their schools and who live near their schools and teachers born outside of the community who lived a commuting distance away (Usman \& Suryadarma, 2007). A study in India that looked more broadly at teachers' relationships or ties to the community concluded that belonging to the local community may not impact absenteeism in either direction. Local teachers had absence rates similar to those of teachers from other communities, controlling for other variables (such as gender, age, college degree, and school infrastructure; Kremer et al., 2005).

- Environmental and health conditions. Environmental factors such as hurricanes and other aggressive weather patterns, which can lead to flooding and infrastructure damage in low-lying islands and atolls, contribute to teacher absenteeism in the Pacific Region (PREL \& Research and Development Cadre, 1998).

A lack of basic means to be healthy and safe can also impact teacher absenteeism. In Tanzania lack of access to food, clean water, sanitation, and access to a hospital has been a reason for teacher absence. Teachers agreed that hunger constrained their capacity to teach, as did poor water resulting from inadequate infrastructure (substandard water tanks and latrines), which leads to sickness and disease (Tao, 2013).

- Socioeconomic conditions. In India "relative teacher salaries are higher in poorer states, yet poorer states have higher absence rates" (Kremer et al., 2005, p. 661). No reasons are offered to explain this finding. In Bangladesh, Ecuador, India, Indonesia, Peru, and Uganda teachers in low per capita income areas were absent more often on average than teachers in other areas (Alcázar et al., 2006; Chaudhury et al., 2006).

Social and cultural responsibilities

Risk factors for teacher absenteeism may also be related to unique social and cultural contexts. In the Pacific Region this can include Polynesian and Micronesian traditional values, cultural events, and family and village social roles. Two factors involving social and cultural responsibilities that relate to teacher absenteeism are:

- Illness, funeral attendance, and care of family members. In Malawi illness was cited as a reason for frequent absences (Kadzamira, 2006). This finding was supported by previous research by Kadzamira in an HIV/AIDS study, which found that teachers most often cited "personal sickness, funeral attendance and attending to sick family members" as reasons for absence (cited in Kadzamira, 2006, p. 13).
- Social and cultural norms, including expectations for female teachers. Specific social and cultural expectations and traditions in the Pacific Region may also relate to high absenteeism. For example, traditional feasts and funerals can feature as an important part of village life, and attendance obligations can override professional ones. An individual teacher's status among family and village relationships may also determine whether teacher absenteeism is overlooked within a public school system (PREL \& Research and Development Cadre, 1998).

Gendered patterns of absenteeism can also be understood as an indication

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because their professional responsibilities as teachers are sometimes at odds with the domestic and caregiver duties they are expected to perform in the home (Tao, 2013; Alcázar et al. 2006; Chaudhury et al., 2006).

In Tanzania lack of motivation, stemming from reduced professional advancement opportunities for women, was identified as a significant reason for teacher absenteeism. According to teachers interviewed, women are constrained by patriarchal divisions of labor and expectations to be primary caregivers and housekeepers. Actual opportunities for advancement do not reflect school policies, which state that women and men have equal opportunities for advancement. Domestic obligations often mean that female teachers have less time to study for certification exams and are therefore more likely to perform poorly. The loss of time, effort, and money to take advancement courses and exams may lead to reluctant attitudes, disillusionment, or distraction and thus a higher likelihood of absenteeism (Tao, 2013).

## Next steps

Education and community stakeholders in the Pacific Region identified the need for research on the underlying factors and implications of teacher absenteeism to improve rates of teacher attendance. As such, this research review identifies and categorizes key factors across international research that may contribute to absence rates. As illustrated, predictors of absenteeism vary across place and context. Factors that have a relationship with improved attendance in one country, or even between states or regions within one country, may not show the same relationship in other areas. Given the diversity of Pacific Region communities, stakeholders should examine the extent to which the context and results of the research presented here correspond to the social, structural, cultural, and environmental characteristics of their own contexts.

While variations exist based on different country contexts, certain themes that underlie teacher attendance issues-pay structure, management, working conditions, community conditions, and social and cultural responsibilities-emerged from the literature. These themes help establish a foundation for exploring solutions to teacher absenteeism that may be relevant to the Pacific Region context.

Teachers' pay structure, including compensation and contractual status, can influence absenteeism, though this influence varies by country. Related to this, stakeholders may wish to consider how their hiring and compensation policies are structured and whether there is any relationship with how often teachers are absent. Stakeholders may also wish to examine within their own context how the management of teachers and schools, including school governance and enforcement of sanctions, may discourage absence among teachers.

Teachers' working conditions may also influence absenteeism rates. These working conditions, which include the culture of a school, its physical condition, the structure of classrooms, and the responsibilities or expectations of teachers, should be further explored within each school system to understand any relationship with promoting or protecting against teacher absenteeism.

Community factors, such as socioeconomic, health, and environmental conditions, may also play a role in teacher absenteeism. As such, educators should involve family and

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community members and organizations in examining and addressing these factors. For example, involvement by ministries or departments of health and transportation would be needed to collectively address illness or transportation issues in rural communities.

Lastly, social and cultural responsibilities, such as traditional values, cultural events, and social roles, may contribute to teachers being absent. As with community factors, addressing social and cultural factors would require family and community involvement.

While examining these factors more closely, with their own communities in mind, Pacific Region stakeholders can begin to identify possible root causes for why teachers are absent and possible solutions. The literature on teacher absenteeism casts a wide net for possible solutions. ${ }^{1}$ Pay and compensation are discussed throughout the literature with mixed findings. However, teachers who are paid well may be less likely to take on a second job and may feel more appreciated and rewarded (Benveniste et al., 2007). Revising school attendance policies is another frequently explored area in the teacher absenteeism literature. These policies can range from publishing a narrow and specific list of acceptable reasons to be absent (Bennell, 2004; Habib, 2010; Miller, 2012) to schools systematically tracking teacher attendance and including it as a performance measure in evaluations (Pitkoff, 2003). Other, less direct, practices may also be considered: making teachers and their schools accountable to monitoring committees, which includes parents and local community members (Guerrero, Leon, Zapata, \& Cueto, 2013), improving teachers' work environment and increasing administrative support (Habib, 2010), or forging a "contractual relationship" ${ }^{2}$ that makes students and teachers mutually accountable to each other to be at school (Banerjee et al., 2012, p. 567).3

By exploring factors related to teacher absenteeism within the context of each Pacific Region jurisdiction and discussing possible root causes and solutions, stakeholders can take well informed steps toward improving attendance rates.

By exploring factors related to teacher absenteeism within the context of each Pacific Region jurisdiction and discussing possible root causes and solutions, stakeholders can take well informed steps toward improving attendance rates

## Appendix A. Data and methodology

This research review addresses the question: What does the research literature identify as the underlying causes of teacher absenteeism? To explore this question, the study team reviewed research literature related to teacher absenteeism from international contexts and case studies, particularly as they related to developing country environments, to identify research that might be most relevant to the Pacific Region.

## Data sources

Research literature was collected through a review of electronic databases such as Google Scholar, ERIC, the Institute of Education Sciences database of publications, EconLit, JSTOR, and EBSCO. The study team pursued a primary search of electronic databases of research literature with a focus on the international context. This search included a focus on non-U.S. Pacific entities and other developing country and emerging economy contexts that may be more relevant and applicable to Pacific Region entities other than Hawaii. The study team began the search using EBSCO and ERIC.

Different search parameters were used to determine the scope of U.S. and international literature to include in the review. In some cases searches were limited to international domains by deselecting "United States" from the "Geography" search criteria option. Other search parameters did not exclude the United States and allowed for research literature that mentioned the United States in the context of multicountry research or comparative literature reviews within international studies. Other common search parameters included the following Boolean combinations: "Teacher" AND/OR "Absenteeism", "Absence", "Attendance"; "Teacher" AND/OR "Absenteeism", "Absence", "Attendance" AND "Developing Countries".

Once repeated references to certain country studies were detected, specific country searches were performed in relation to the above criteria. Peer-reviewed journal articles from these databases were preferred, although other search engines and databases were used. After completing these searches, researchers appended their compilations with non-peer reviewed but highly reputable resources, such as those from the World Bank and the United Nations Children's Fund.

Analysis method
The study team reviewed literature about teacher effectiveness research as it relates to teacher absenteeism with an emphasis on research outside the United States.

Specific criteria used in selecting sources for review were:

- Research as it relates to the underlying causes of teacher absenteeism, with an emphasis on research outside the United States.
- Date of publication: 2005 or later; however, publications related to teacher absenteeism in the Pacific Region were included as far back as 1998 because more recent literature was scarce.
- Entity of publication: publications from Pacific Region entities-American Samoa, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia, Guam, Hawaii, the Republic of the Marshall Islands, and the Republic
of Palau. Research literature had documentation of the nation-state-locality and whether the research satisfies the criteria of being in the Pacific Region or being from another country.
- Publisher: articles in peer-reviewed journals, policy reports, and studies by international organizations, such as the World Bank and the United Nations Children's Fund.

Screening of research literature was conducted in two stages. If available, abstracts or executive summaries were reviewed first, and studies that clearly did not meet criteria were eliminated. For documents that passed this initial screen or for which abstracts or executive summaries were not available, full reports were downloaded or requested and then reviewed

## Appendix B. Viewing absenteeism through an international lens

International comparisons can help illuminate factors related to teacher absenteeism that correspond to the Pacific Region context. Table B1 reflects documented teacher absenteeism rates in various emergent nations, reflecting the potentially widespread and cumulative impact of lost instruction time and resources on school systems and communities.

Selected international studies also point to the relationship of teacher absenteeism to student learning. For instance, 25 percent of teachers at rural primary schools in India were absent on any given school day. The loss of instruction time resulting from these absences corresponded to low schoolwide student proficiency levels, which ranged from 40 percent to 50 percent in grade-level literacy and numeracy (Narayan \& Mooij, 2010). In Indonesia an increase of 10 percentage points in the average teacher absence rate was associated with a .09 standard deviation decrease in grade 4 math scores (Suryadarma, Suryahadi, Sumarto, \& Rogers, 2006; Rogers \& Vegas, 2009). An analysis of the relationship between student mean test scores and teacher absence rates in Ghana's Ashanti region district schools showed that teacher absenteeism is inversely related to student performance. When teacher absence rates increased, student mean scores declined (ObengDenteh et al., 2011). The economic costs associated with managing the loss of instruction time in cases such as these are high and produce additional burdens on already strained school systems.

In primary schools in Zambia, student learning gains were correlated with teacher absence, and absences resulted in a surprisingly large effect: each additional 5 percent increase in teacher absence reduced learning for the typical student by 4-8 percent by the end of the school year (Rogers \& Vegas, 2009). In rural Rajasthan, India, students' learning increased significantly when they were taught by teachers with higher attendance (Rogers \& Vegas, 2009).

Table B1. International teacher absenteeism rates range from 11 percent to 28 percent

| Country | Average share of teachers <br> absent (percent) | Year documented |
| :--- | :--- | :--- |
| Bangladesh | 16 | $2002 / 03$ |
| Cambodia (lower secondary) | 12 | 2006 |
| Ecuador | 14 | $2002 / 03$ |
| India | 25 | $2002 / 03$ |
| Indonesia | 19 | $2002 / 03$ |
| Kenya | 28 | 2000 |
| Pakistan (North Frontier Province) | 18 | 2006 |
| Papua New Guinea | 15 | 2004 |
| Peru, national | 11 | $2002 / 03$ |
| Peru, rural | 21 | $2002 / 03$ |
| Uganda | 27 | $2002 / 03$ |
| Zambia | 18 | 2007 |

Source: Rogers \& Vegas, 2009; Usman \& Suryadarma, 2007; Benveniste et al., 2007; Chaudhury et al., 2006; Kremer et al., 2005.

## Notes

1. The body of research presented here on possible solutions to address teacher absenteeism has not been systematically evaluated for methodological rigor. Stakeholders should review each article for more information regarding research design, sampling, analyses, and recommendations.
2. A contractual relationship is formed through teacher-student interactions in which a shared satisfaction over learning develops. It is the joint and cooperative production of learning that mutually benefits teachers and students (Banerjee et al., 2012).
3. Several policies and practices have been studied as potential remedies; however, they have shown varying levels of efficacy and success. Even among studies that did report a relationship to improved teacher attendance, application to the Pacific Region context can vary, depending on how similar the regions studied are to the Pacific Region.

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