



What's Known

December 2014

Review of research on student nonenrollment and chronic absenteeism: A report for the Pacific Region

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Key findings

Throughout parts of the Regional Educational Laboratory Pacific Region, between a fourth and a half of secondary school-age students are not enrolled in school. Others may be enrolled but are often absent for part or all of the day, missing considerable academic time. This review of research on why some students miss school found that the underlying factors can be grouped under four broad themes: student-specific, family-specific, school-specific, and community-specific. Because many of these potential factors are interconnected, educators and community stakeholders might need to gather data specific to their communities and consider multiple factors to understand the reasons for nonenrollment and chronic absenteeism. This review provides a starting point for understanding why students miss school.

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Summary

In all parts of the world, students' engagement and participation in school affect their economic and social development (Purdie & Buckley, 2010; Sabates, Akyeampong, Westbrook, & Hunt, 2011). Plans to encourage students to attend school are best based on the number of out-of-school students and an understanding of the factors keeping them away from school.

This review of research on the underlying causes of student nonenrollment and chronic absenteeism serves as a foundation for a strategy to build a deep, cohesive body of knowledge to engage Regional Educational Laboratory (REL) Pacific Region families and education communities. It will also help policymakers and practitioners understand the root causes of student nonenrollment and chronic absenteeism as they conduct further research and take appropriate action.

Research from the United States and emergent nations was collected and analyzed for this review. While much U.S. literature is generalizable to U.S. territories and freely associated states, its applicability to the education context of the Pacific islands is uncertain. Thus, this review also includes research from emergent nations, which are more comparable to parts of this region.

The average U.S. enrollment rate is 87 percent for secondary students and 93 percent for primary students (United Nations Educational, Scientific and Cultural Organization [UNESCO] Institute for Statistics, 2013).¹ Secondary enrollment rates in the Federated States of Micronesia and Republic of the Marshall Islands are much lower, ranging from 47 percent (Chuuk state in Micronesia) to 75 percent (Kosrae state in Micronesia; Federated States of Micronesia, Office of Statistics, Budget and Economic Management, Overseas Development Assistance, and Compact Management, 2010).

Analysis of the literature reveals that the underlying factors that keep students from participating in school fall into four broad themes: student-specific, family-specific, school-specific, and community-specific. In many cases student-specific factors may be related to family-specific factors. Similarly, family-specific factors may be related to community-specific factors. Given the potential connections among factors, educators and community stakeholders might need to consider multiple factors in understanding the reasons for non-enrollment and chronic absenteeism in their communities. With this information, REL Pacific Region families, along with policymakers and practitioners, can plan actions to address the student-, family-, school-, and community-specific factors that may be keeping their children out of school.

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Why this study?

Throughout parts of the Regional Educational Laboratory (REL) Pacific Region, between a fourth and a half of secondary school-age students are not enrolled in school (Federated States of Micronesia, Office of Statistics, Budget and Economic Management, Overseas Development Assistance, and Compact Management, 2010). Others may be enrolled but are often absent for part or all of the day, missing considerable academic time. Research shows that students' engagement in school is critical to their economic and social development. Various needs assessments in the Pacific Region involving chief state school officers, research alliance members, and board members have set a priority of understanding the root causes of student nonenrollment and absenteeism so that programs can be designed to counter them. A first step is this review of the number of out-of-school students in the region and of U.S. and emergent nation research on the causes of nonenrollment and absenteeism, designed to start a discussion on these issues among policymakers, practitioners, and community members so that they can determine the next steps.

Changing the odds by staying in school

Education strongly influences life outcomes, especially in emergent nations, where research consistently shows a connection between increased education and lifetime income: each year of education is associated with an average 10 percent increase in future income (Barro & Lee, 2012; Sabates, Hossian, & Lewin, 2010). Increased education is also associated with improved national health, nutrition, clean water, and sanitation (Furnée, Groot, & van den Brink, 2008; United Nations Development Programme, 2003).

In all parts of the world, students' engagement in school is critical to their economic and social development (Purdie & Buckley, 2010; Sabates et al., 2011). Worldwide, organizations invest in efforts to increase student enrollment and attendance. For example, the United Nations Children's Fund (UNICEF) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics launched the Global Initiative on Out-of-School Children in 2010, an international effort to address the issue of children not being enrolled in school. These two world organizations identified education as a fundamental requirement to achieving all other Millennium Development Goals²: ending poverty; attaining gender equality; reducing child mortality and improving maternal health; eliminating HIV, AIDS, and other diseases; and achieving environmental sustainability (United Nations Children's Fund [UNICEF] and UNESCO Institute for Statistics, 2012). Accomplishing these improved life outcomes requires engaging children in schooling and ensuring the delivery of a high-quality education.

Enrollment rates in the United States are higher than the global rates, while rates in the Pacific islands are variable

Globally, the 2010 net enrollment rate (see box 1 for definitions of key terms in the report) for primary school students (ages 5–10) was 89 percent (UNESCO Institute for Statistics, 2013), leaving an estimated 61 million primary students not enrolled in school (UNICEF and UNESCO Institute for Statistics, 2012). Of these 61 million students, 47 percent were expected to never enter school, 26 percent attended but left school, and 27 percent were expected to enter school in the future. The 2010 net secondary enrollment rate (typically students ages 11–16) was 63 percent (UNESCO Institute for Statistics, 2013), leaving an

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estimated 71 million secondary students unenrolled (UNICEF and UNESCO Institute for Statistics, 2012).

While net primary and secondary enrollment rates in the United States are higher than global rates, rates in the U.S.-affiliated Pacific island nations³ vary. The 2010 U.S. net primary enrollment rate of 93 percent and secondary enrollment rate of 87 percent exceeded global averages (UNESCO Institute for Statistics, 2013). In the U.S.-affiliated Pacific island nations, primary enrollment rates range from 81 percent to 99 percent, while secondary enrollment rates are lower, ranging from 47 percent to 75 percent (table 1). Net enrollment rates are not available through UNESCO for Hawaii or the U.S. territories of American Samoa, the Commonwealth of the Northern Mariana Islands, and Guam.⁴

The average primary net enrollment rate across the Federated States of Micronesia is 85 percent,⁵ which is below the rates in Micronesia's states of Kosrae, Pohnpei, and Yap and above the rate in the state of Chuuk. The Republic of the Marshall Islands and the Republic of Palau report primary net enrollment rates of 99 percent and 90 percent, respectively. In other (non-U.S.-affiliated) Pacific island nations the average net primary enrollment rate ranges from 76 percent in Nauru to 100 percent in Niue (see table B1 in appendix B). Secondary enrollment rates are lower and more varied. The average secondary enrollment rate across the Federated States of Micronesia is 55 percent, lower than in the Marshall Islands, but the 75 percent rate in Micronesia's state of Kosrae is among the highest in

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Box 1. Key terms used in the report

Absenteeism. Absences from school that are persistent, habitual, and unexplained or explained with good reason (such as those due to illness) (Cook & Ezenne, 2010).

Chronic absenteeism. An absence for 20 percent or more of the total school days in a school year (Cook & Ezenne, 2010).

Global Initiative on Out-of-School Children. An international effort launched in 2010 by the United Nations Children's Fund and the United Nations Educational, Scientific and Cultural Organization Institute for Statistics to address the issue of children's not being enrolled in school.

Net enrollment rate. The total number of students in the age group for a given level of education who are enrolled that level. It is expressed as a percentage of the total population in that age group (UNESCO Institute for Statistics, 2013). The formula and calculations are shown in appendix A.

Out-of-school children. Children who never entered school, attended but left school, or are expected to enter school in the future (UNICEF and UNESCO Institute for Statistics, 2012). These children are not enrolled in school.

Truancy. A form of chronic absenteeism (although the terms are sometimes used interchangeably, they mean different things). Chronic absenteeism may be excusable by school standards. Truancy is the persistent, habitual, and unexplained or unexcused absence from school by a student of compulsory school age. Although it can occur with parent knowledge and sometimes consent, truancy is generally absence without permission. Truancy can take the form of "fractional truancy" in which students arrive late, leave early, or skip individual classes (Cook & Ezenne, 2010).

Table 1. Worldwide, U.S., and U.S.-affiliated Pacific island nations' net enrollment rates, most recent year available (percent)

Entity	Net enrollment rate (year of data)	
	Primary	Secondary
Worldwide	89 (2010)	63 (2010)
United States	93 (2010)	87 (2010)
U.S.-affiliated Pacific island nations		
Federated States of Micronesia, average	85 (2010)	55 (2010)
Chuuk	81 (2010)	47 (2010)
Kosrae	94 (2010)	75 (2010)
Pohnpei	89 (2010)	59 (2010)
Yap	90 (2010)	65 (2010)
Republic of the Marshall Islands	99 (2011)	63 (2007)
Republic of Palau	90 (2011)	—

— is not available.

Note: Net enrollment rates for other Pacific island nations, including Cook Islands, Fiji, Kiribati, Nauru, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu, are in appendix B.

Source: World, United States, and Republic of the Marshall Islands, UNESCO Institute for Statistics (2013); Federated States of Micronesia, Federated States of Micronesia, Office of Statistics, Budget and Economic Management, Overseas Development Assistance, and Compact Management (2010); Republic of Palau, Secretariat of the Pacific Community (n.d.).

Given the potential connections across factors related to out-of-school children, educators and community stakeholders might consider multiple factors to understand the reasons for nonenrollment and absenteeism in their communities

the Pacific Region. Across other Pacific island nations, the highest reported rate is in Fiji (83 percent), and the lowest is in the Solomon Islands (31 percent). Secondary enrollment rates are not available for many Pacific island nations.

What the study found

Education and community stakeholders in the Pacific Region seeking to understand why some students are not participating in school—through nonenrollment, absenteeism, chronic absenteeism, or truancy—may be guided by U.S. and international research. The study team identified relevant research on these topics and categorized the findings into four broad themes: student-specific, family-specific, school-specific, and community-specific (table 2). For methodology, see appendix C.

Many factors are interrelated, either within a theme or across themes. Student-specific factors are often related to family-specific factors (such as girls' staying at home more frequently to care for siblings and families with more at-home responsibilities). Similarly, family-specific factors may be related to community-specific factors (such as families moving to find or follow work and the availability of job opportunities). Given the potential connections across factors, educators and community stakeholders might consider multiple factors to understand the reasons for nonenrollment and absenteeism in their communities.

Student-specific factors

Factors found in both U.S. and international literature

Teenage motherhood and teenage marriage. Although students from both the United States and emergent nations leave school or do not enroll in school because of pregnancy or

Table 2. Factors related to nonenrollment, absenteeism, chronic absenteeism, and truancy according to U.S. and international research

Theme	In both U.S. and international literature	In U.S. literature only	In international literature only
Student-specific factors	<ul style="list-style-type: none"> • Teenage motherhood and teenage marriage • Low academic performance and repeating one or more grades • Lack of caring relationships with adults • Negative peer influence 	<ul style="list-style-type: none"> • Bullying 	<ul style="list-style-type: none"> • Gender • Child labor • Children with special needs
Family-specific factors	<ul style="list-style-type: none"> • Low family income • Low parent involvement • Family’s moving to find or follow work • Families with more at-home responsibilities 	<ul style="list-style-type: none"> • Stressful family events • Conflicting home and school values and priorities, including language differences 	<ul style="list-style-type: none"> • Head of household involved in subsistence work (agriculture, fishing, or nonsalary employment)
School-specific factors	<ul style="list-style-type: none"> • Poor conditions or lack of school facilities • Low-quality teachers • Teacher shortages • Poor student–teacher interactions • Geographic access to school 	<ul style="list-style-type: none"> • Less challenging courses and student boredom 	<ul style="list-style-type: none"> • Teacher absenteeism
Community-specific factors	<ul style="list-style-type: none"> • Availability of job opportunities that do not require formal schooling • Unsafe neighborhoods • Lack of policies and legal statutes, including low compulsory education requirements 	<ul style="list-style-type: none"> • Lack of social and education support services 	<ul style="list-style-type: none"> • Poor physical infrastructure (such as water, electricity, and transportation)

The highest rates of out-of-school girls are in areas with the highest rates of teenage marriage, which may result from poverty

Source: Authors’ analysis based on data from literature review.

marriage, these reasons are more common in emergent nations (Owusu-Kyeremaa, 2012). While one in five girls worldwide has given birth by age 18, this figure rises to over one in three girls in the world’s poorest regions (World Health Organization, 2012). Worldwide, 18 million girls and women under age 19, 95 percent of whom are in low- and middle-income countries, give birth every year. In the United States, 325,000 girls and women under age 19 give birth each year (Hamilton, Martin, & Ventura, 2012). The highest rates of out-of-school girls are in areas with the highest rates of teenage marriage, which may result from poverty (United Nations Population Fund, 2012). In emergent nations, 12 percent of girls are married before age 15, and 35 percent are married before age 18 (UNICEF, 2012).

Low academic performance and repeating one or more grades. Students who are doing poorly in school tend to become disengaged and less motivated (Sabates et al., 2011). Lack of student progress may result in repeating grades. In 2007 roughly 10 percent of U.S. students were retained in school at least once between kindergarten and grade 8 (Planty et al., 2009). Globally, more than 32 million students repeated a grade in primary education in 2010 (UNESCO Institute for Statistics, 2012). Older students who have been required to repeat a grade tend to lack motivation to continue to learn. Grade repetition happens more among low-income students and traditionally disadvantaged racial/ethnic minority students (Kearney, 2008; Rumberger & Lim, 2008).

Lack of caring relationships with adults. Students who perceive the adults with whom they have relationships as being uncaring, untrusting, or unsafe tend to disengage from school and have a hard time doing what adults ask of them. These students may simply not do what their parents and teachers want them to do (Cook & Ezenne, 2010) because they believe the rules set at home and school are too restrictive (Kearney, 2008). Students who feel controlled and restricted can aggravate their poor relationships with adults and avoid school, as well as engage in other nonproductive activities (Cook & Ezenne, 2010).

Negative peer influence. Students in all regions of the world are influenced both positively and negatively by their peers. The need to “fit in” can cause them to do what their friends do (Kearney, 2008). In some cases, fitting in may mean participating in gangs and gang-related activities, as well as other negative activities such as drinking, drug use, fighting, and being absent from school (Kearney, 2008). Students in emergent nations tend not to be involved in gangs but can be influenced by peers to not attend school (Owusu-Kyeremaa, 2012).

Students who perceive the adults with whom they have relationships as being uncaring, untrusting, or unsafe tend to disengage from school and have a hard time doing what adults ask of them

Factor found in U.S. literature only

Bullying. Bullying is defined as a type of aggression in which the aggressive act is meant to harm, occurs repeatedly, and involves an imbalance of power between the bully and the victim (Wang, Iannotti, & Nansel, 2009). Bullying at school is problematic among adolescents and has been shown to negatively affect school achievement, prosocial skills, and the psychological health of both the perpetrators and the victim (Wang et al., 2009). Students who have been victimized by physical (for example, hitting, pushing, and kicking), verbal (for example, hurtful name calling and teasing), or cyber (for example, e-mail, instant messaging, and text messaging) bullying are less likely to succeed in and remain engaged with school. This is especially true of socially underdeveloped students because the victimization compounds the challenges they already face in making social connections with others (Kearney, 2008; McCray, 2006; Veenstra, Lindenberg, Tinga, & Ormel, 2010). Socially underdeveloped students have difficulty interacting with other children and adults, ranging from not being able to hold a conversation to feeling extreme anxiety for merely being part of a group with other students.

Factors found in international literature only

Gender. Girls account for more than half of the out-of-school population in primary grades (UNESCO Institute for Statistics, 2012). Girls are more frequently kept at home when care is needed for other children in the household and when schools are far away and require a long walk or use of public transportation because families may fear for the girls’ safety. In some cases schools have no bathroom facilities for girls (Education Policy and Data Center, 2010; Owusu-Kyeremaa, 2012).

Child labor. In 2008 there were 215 million child laborers ages 5–17, nearly 114 million of them in the Asia and the Pacific Region (International Labour Organization, 2010). Sixty percent of child laborers are in agriculture-related jobs (International Labor Organization, 2010). Only one in five child workers is in a paid job, with many working in family agriculture (Bando, López-Calva, & Patrinos, 2004; Cardoso & Verner, 2007).

Children with special needs. Children with disabilities—physical, mental, and emotional—are less likely to start school with their peers (World Health Organization, 2011). In some emergent nations, up to 90 percent of children with disabilities do not attend school, particularly in rural areas (UNICEF, 2007).

Family-specific factors

Factors found in both U.S. and international literature

Low family income. A family's income level can affect access to reliable transportation, nutritious food, health care, educational resources in the home, and clean and suitable clothing. Less access to these goods and services may negatively affect school enrollment and attendance (Cardoso & Verner, 2007; Chugh, 2011; Education Policy and Data Center, 2010; McCray, 2006; Romero & Lee, 2007; Sabates et al., 2010; Teshome, 2012).

Low parent involvement. Working or caring for other members of the family may affect the amount of time parents have for their children's school activities (Kearney, 2008; McCray, 2006; Weber, 2010). Parent education level may also limit involvement. Parents who do not understand how schools operate tend to have a more difficult time helping their children at school. For example, parents may be unfamiliar with rules about enrolling their children in school by a certain date. They may not be familiar with programs or services available for their child or with the rules and processes to access those services, thereby limiting their ability as advocates. Parents who have low levels of education themselves, or are unsure of their parenting skills, may feel unable to help their children with schoolwork. Students may misunderstand their parents' lack of engagement in school as indicating that schooling is unimportant, leading to their own disengagement from school (Cardoso & Verner, 2007; Chang & Romero, 2008; McCray, 2006).

Students may misunderstand their parents' lack of engagement in school as indicating that schooling is unimportant, leading to their own disengagement from school

Family's moving to find or follow work. Communities with few opportunities for stable work or economies in which workers follow harvests or herd migrations may require families to move frequently. Frequent changes in communities and schools may make it more difficult for students to stay in school (Arunatilake, 2006; Kearney, 2008). For example, course topics or materials offered in one grade at one school may differ from those offered in the same grade at a different school. When this happens, students tend to fall behind while adjusting and become discouraged. Further, moving affects social connections with teachers and peers that are important to academic performance.

Families with more at-home responsibilities. Large families have more people whose basic needs must be met. When this is the case, students may be kept home to help. In the United States this issue is more likely to affect low-income and immigrant families (Huisman & Smits, 2012; Justesen & Verner, 2007; Kearney, 2008; McCray, 2006; Teshome, 2012). In emergent nations older children and nonbiological children tend to be removed from school more often to help the family meet basic survival needs (Lloyd, Mete, & Grant, 2009; Sabates et al., 2010; Sabates et al., 2011).

Factors found in U.S. literature only

Stressful family events. Stressful family events such as divorce, illness, unemployment, and moving may shift parents' focus to priorities other than school. The family may not have

the resources (time and money) to help children during these stressful events, which can negatively affect academic achievement and increase the risk of absenteeism or leaving school altogether (Kearney, 2008; Owusu-Kyeremaa, 2012; Teshome, 2012).

Conflicting home and school values and priorities, including language differences. When the values and priorities of the school and the family are not aligned, families tend to feel less connected to the education process (Arunatilake, 2006; Kearney, 2008). For example, teachers and school staff may place higher value on school attendance, while families may place a higher priority on having their children help with in-home responsibilities. Additionally, families that speak a different language than the one spoken in school can feel disconnected because they do not always understand the details of school rules, guidelines, expectations, events, and programs (Kearney, 2008). This disconnectedness may be exacerbated if nobody at the school is able to communicate with the family in the family's native language.

Factor found in international literature only

Head of household involved in subsistence work (agriculture, fishing, or nonsalary employment). Families in which the head of the household is involved in subsistence activities may be more affected than low-income families with nonsubsistence jobs. Subsistence activities such as agriculture and fishing tend to be in season while school is in session. Children from these families may stay home to help with household responsibilities or assist with the harvest to help the family financially. This situation is more common in emergent nations (Arunatilake, 2006; Education Policy and Data Center, 2010).

Schools with poor or nonexistent facilities (such as bathrooms, rooms with air flow, electricity, and running water) negatively affect the chances of students' enrolling or participating in school

School-specific factors

Factors found in both U.S. and international literature

Poor conditions or lack of school facilities. Schools with poor or nonexistent facilities (such as bathrooms, rooms with air flow, electricity, and running water) negatively affect the chances of students' enrolling or participating in school (Arunatilake, 2006; Hanushek, Lavy, & Hitomi, 2007; Lloyd et al., 2009; Sabates et al., 2011).

Low-quality teachers. Poor-quality teachers are not effective in raising student test scores or developing problem-solving and other noncognitive skills. They can also negatively affect school enrollment and attendance because their students may not learn as effectively and may become less motivated to attend school (Hanushek et al., 2007; Owusu-Kyeremaa, 2012).

Teacher shortages. Teacher shortages, particularly in emergent nations, induce children to miss school. Shortages of high-quality teachers may mean having less-effective teachers in classrooms or higher average class sizes and less individualized attention for students, which can negatively affect students' understanding and motivation to learn (Hanushek et al., 2007; Sabates et al., 2011).

Poor student–teacher interactions. Teachers who are unable to establish strong connections with their students increase the chances that their students will disengage from school (Chang & Romero, 2008; Hanushek et al., 2007; Kearney, 2008). Strong connections

between teachers and students help students feel supported, motivated, and empowered to do better. Such connections also increase students' sense that they can be successful (known as self-efficacy), which is positively correlated with improved academic performance.

Geographic access to school. When schools are not readily accessible (mainly in rural areas), families tend not to send their children (especially girls) to school because of safety concerns and the extra time and expense of travel (Arunatilake, 2006; Education Policy and Data Center, 2010; Huisman & Smits, 2012; see also "Gender" in "Student-specific factors.")

Factor found in U.S. literature only

Less challenging courses and student boredom. Boredom in school may be the first step in leaving school permanently. Student boredom has been linked to schools that do not provide rigorous instruction and that have poor teaching (Hanushek et al., 2007; Kearney, 2008).

Factor found in international literature only

Teacher absenteeism. Although this factor exists in the United States, it is more common in emergent nations. Teachers may reside far from the school where they teach, requiring a long commute and increasing the chances of their absence. In some communities teachers may not have the incentive to attend school when their employment is guaranteed regardless of their attendance (Arunatilake, 2006; Huisman & Smits, 2012; Sabates et al., 2011).

Community-specific factors

Factors found in both U.S. and international literature

Availability of job opportunities that do not require formal schooling. Some communities (such as mining communities) have well paying jobs that do not require extensive formal schooling. Students may leave school earlier than normal to earn an income for their families (Kearney, 2008), especially if they know that local jobs do not require much education.

Unsafe neighborhoods. Crime, gang-related activities, and violence reduce the chances of students' enrolling or participating in school because neighborhood violence can make it dangerous for students to travel to school (Kearney, 2008; UNESCO, 2011).

Lack of policies and legal statutes, including low compulsory education requirements. Developing communities tend to lack appropriate policies and laws to support education. For example, school systems that require compulsory education only for younger students may enable older students to leave or be kept from school (Huisman & Smits, 2012; Kearney, 2008). Compulsory education varies from state to state in the United States—18 states allow students to leave school at age 16, while 20 states require them to attend through age 18 (Aud et al., 2012). In states where the age of compulsory education is low, students are more likely to leave school without graduating once they reach the legal age to drop out (Kearney, 2008). Emergent nations tend to require student enrollment and attendance through secondary education, that is, age 14 or 15 (European Commission, n.d.).

When schools are not readily accessible (mainly in rural areas), families tend not to send their children (especially girls) to school because of safety concerns

Factor found in U.S. literature only

Lack of social and education support services. Lack of community social support services can make it difficult for some families to be involved with their children's education. As an example, even a physical space like a library can increase a family's sense of education support (Kearney, 2008; McCray, 2006). Communities that offer afterschool activities and places like a library or a city hall for study are providing families with resources to supplement their children's education needs. Furthermore, social support services such as civic groups, churches, and family resource and youth services may give children academic support (Kearney, 2008).

Factor found in international literature only

Poor physical infrastructure (such as water, electricity, and transportation). Communities with poor physical infrastructure for basic needs like water and electricity and poor transportation systems may make it harder for students to attend school (Cook & Ezenne, 2010; Huisman & Smits, 2012; Lloyd et al., 2009). Some students may be unable to attend school without access to public transportation. Without access to clean water, students may be unable to brush their teeth or bathe regularly, leading to feelings of embarrassment because of their lack of cleanliness and thus to a reluctance to attend school. Electricity allows classrooms to function and homes to provide appropriate study areas. The lack of electricity at home may impede learning because students are unable to continue their homework after dark (Cook & Ezenne, 2010).

Next steps

Education and community stakeholders across the Pacific Region identified a need for more information about nonenrolled and absentee students. As such, this research review summarizes data on enrollment in Pacific Region entities and details and categorizes the reasons found by other researchers as to why students do not attend school. Given the diversity of Pacific Region communities, stakeholders should examine the extent to which the context of the research presented here is similar to their own contexts.

By exploring and understanding the student-, family-, school- and community-specific factors found in U.S. and international research, stakeholders can begin to define additional regional data needs on student enrollment, student attendance, and reasons for absences in order to explore these factors in their own communities. If additional data are needed, the education community can decide on the most suitable and context-relevant methods of data collection (such as surveys, interviews, or focus groups).

When pursuing next steps, a key consideration is the unique and varied cultural backgrounds, community structures, and economic contexts across the Pacific Region. Pacific Region entities range from high-income economies to upper and lower middle-income economies. With these diverse characteristics in mind, stakeholders may need to more closely examine how and whether the factors discussed in this report consistently apply to their respective contexts.

Stakeholders can also begin to identify the root causes for out-of-school students or absenteeism, which may differ in each community. Once root causes are identified, stakeholders can take steps aligned with the most probable root causes to improve enrollment and attendance and design intervention programs to get children to enroll in and attend school.

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Appendix A. Calculating the net enrollment rate

The purpose of the net enrollment rate is to show the extent of coverage in a given level of education of children and young people belonging to the official age group corresponding to the given level of education.⁶ It can be disaggregated by gender, geographic location (region, urban/rural), and level of education.

The data required are enrollment by single years of age for a given level of education and the population of the age group corresponding to the given level of education. These data can usually be obtained from school registers or school surveys or censuses (for data on enrollment by age) and from population census or estimates (for school-age population).

It is calculated by dividing the number of students enrolled who are in the official age group for a given level of education by the population for the same age group and multiplying the result by 100:

$$\text{NER}_h^t = \frac{E_{h,a}^t}{P_{h,a}^t} \times 100,$$

where NER_h^t is the net enrollment rate at level of education h in school year t , $E_{h,a}^t$ is the enrollment of the population of age group a at level of education h in school year t , and $P_{h,a}^t$ is the population in age group a , which officially corresponds to level of education h in school year t . If primary education begins at age 7 and lasts six years, then a is ages 7–12.

A high net enrollment rate denotes a high degree of coverage for the official school-age population. The theoretical maximum value is 100 percent. Increasingly higher rates reflect improving coverage at the specified level of education. When the net enrollment rate is compared with the gross enrollment rate, the difference between the two highlights the incidence of under-age and over-age enrollment. If the net enrollment rate is below 100 percent, the difference from 100 percent is the proportion of students not enrolled at the specified level of education. However, since some of these students could be enrolled at other levels of education, this difference does not indicate the percentage of students not enrolled. To measure universal primary education, for example, an adjusted primary net enrollment rate is calculated based on the percentage of children in the official primary school age range who are enrolled in either primary or secondary education. A more precise complementary indicator is the age-specific enrollment ratio, which shows the participation in education of the population of each particular age, regardless of the level of education.

The net enrollment rate at each level of education should be based on enrollment of the relevant age group in all types of schools and education institutions, including public, private, and all other institutions that provide organized education programs. For tertiary education (typically ages 17 and older), the indicator is not pertinent because of the difficulties in determining an appropriate age group due to the wide variations in the duration of programs at this level of education. For primary and secondary education, difficulties may arise when calculating a net enrollment rate that approaches 100 percent if:

- The reference date for entry to primary education does not coincide with the birth dates of all of the cohort eligible to enroll at this level of education.
- A substantial portion of the population starts primary school earlier than the prescribed age and consequently finishes earlier.

- The entrance age to primary education increases but the duration remains unchanged.

Although the net enrollment rate cannot exceed 100 percent, values up to 105 percent have been obtained, reflecting inconsistencies between enrollment and population data.

Appendix B. Net enrollment rates in Pacific island nations

Table B1. Net enrollment rates in Pacific island nations (percent)

Entity	Net enrollment rate (year of data)	
	Primary	Secondary
U.S.-affiliated Pacific island nations (served by the Regional Educational Laboratory Pacific)		
Federated States of Micronesia	85 (2010) ^{a,b}	55 (2010) ^b
Chuuk	81 (2010) ^b	47 (2010) ^b
Kosrae	94 (2010) ^b	75 (2010) ^b
Pohnpei	89 (2010) ^b	59 (2010) ^b
Yap	90 (2010) ^b	65 (2010) ^b
Republic of the Marshall Islands	99 (2011) ^c	63 (2007) ^c
Republic of Palau	90 (2011) ^d	—
Other Pacific island nations		
Cook Islands	93 (2010) ^c	76 (2012) ^c
Fiji	97 (2010) ^c	83 (2012) ^c
Kiribati	82 (2011) ^d	—
Nauru	76 (2012) ^c	68 (2012) ^c
Niue	100 (2013) ^d	—
Papua New Guinea	86 (2012) ^c	—
Samoa	95 (2012) ^c	80 (2012) ^c
Solomon Islands	87 (2012) ^d	31 (2007) ^c
Tonga	90 (2012) ^c	—
Tuvalu	95 (2012) ^d	—
Vanuatu	88 (2011) ^d	52 (2010) ^c

— is unavailable.

a. The Secretariat of the Pacific Community (n.d.) reported, through the Statistics for Development Programme's Pacific Regional Information System, a net primary enrollment ratio of nearly 96 percent in 2011 but noted that coverage issues (such as inclusion of private schools) affect the calculation. The Secretariat of the Pacific Community (n.d.) calculates estimates based on population and enrollment data from Federated States of Micronesia, National Department of Education (2010).

b. Federated States of Micronesia, Division of Statistics, Office of Statistics, Budget and Economic Management, Overseas Development Assistance, and Compact Management (2010).

c. UNESCO Institute for Statistics (2013).

d. Secretariat of the Pacific Community (n.d.).

Appendix C. Data collection and methodology

A review of U.S.-based research on factors influencing nonenrollment and chronic absenteeism was conducted through Google Scholar, the Institute of Education Sciences database of publications, Sage, ProQuest, and the World Bank, UNICEF, and UNESCO websites for articles dated from 2005 to 2013.

The following search terms were used:

Absenteeism OR

Chronic absenteeism OR

Attendance OR

Truancy OR

Nonenrollment

Out-of-School children

AND

U.S. OR

International literature OR

Emergent nations OR

Pacific Region OR

Indigenous population

The same sources were then searched for literature on the international context with special emphasis on non-U.S. Pacific nations and other emergent nation or emerging economy contexts that may be more relevant and applicable to Regional Educational Laboratory (REL) Pacific entities other than Hawaii.

Peer-reviewed journal articles were preferred, but additional resources from UNICEF, UNESCO, and the World Bank were also considered. An initial collection of citations was screened by study location and topic (based on search terms below). Articles were included when the study was conducted in the United States or in emergent nation or emerging economy contexts. When the abstract met the screening criteria, the full article was retrieved and included in the literature review. Articles were not selected or reviewed based on the rigor of their design. Forty-four articles were included in this research review.

Two members of the study team independently reviewed each article and recorded the factors affecting why children were out of school. Each looked at the same set of documents, and they ensured that they both agreed on the factors identified. Four themes emerged—student, family, school, and community related.

Draft copies of the reference list of literature and the compiled list of factors related to absenteeism and nonenrollment were sent to REL Pacific Technical Working Group members for feedback on accuracy and relevance. Three members provided feedback,

which was used to modify the draft. A revised draft was presented at an annual meeting for all working group members for discussion.

The summary of literature included in this report is based on articles retrieved from electronic searches with only the above-mentioned search terms. Additional search terms will likely yield additional research.

Notes

1. This report references enrollment rates as calculated by the United Nations Educational, Scientific and Cultural Organization to provide a global perspective of enrollment; however, statistics on U.S. enrollment rates vary by source. For example, the *Digest of Education Statistics* reports the 2011 enrollment rate among students ages 5–6 as 95 percent, the rate among students ages 7–13 as 98 percent, and the rate among students ages 14–17 as 97 percent (National Center for Education Statistics, 2012).
2. For more information about the United Nations Millennium Project and the Millennium Development Goals, see <http://www.un.org/millenniumgoals/>.
3. The U.S.-affiliated Pacific island nations are American Samoa, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia (including Chuuk, Kosrae, Pohnpei, and Yap), Guam, the Republic of the Marshall Islands, and the Republic of Palau. These entities, along with the state of Hawaii, are served by the Regional Educational Laboratory Pacific.
4. Appendix A shows the formula used to compute net enrollment rates. For more information on enrollment rates and population levels for each of these jurisdictions, see the U.S. Census website (<http://factfinder2.census.gov>).
5. The Secretariat of the Pacific Community (n.d.) reported a net primary enrollment rate of nearly 96 percent in 2011 using the Statistics for Development Programme's Pacific Regional Information System but noted that enrollment estimates have created issues with the calculation of the net enrollment rate. The secretariat calculated estimates based on population and enrollment figures in Federated States of Micronesia, National Department of Education (2010).
6. This appendix is adapted from the UNESCO Institute for Statistics Glossary at <http://glossary.uis.unesco.org/glossary> (retrieved May 31, 2013). See also <http://www.uis.unesco.org/Education/Pages/reaching-oosc.aspx> for a short animated video on data about out-of-school children.

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