**Increasing Female Primary School Teachers**

**in African Countries:** **Barriers and Policies**

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June 2011

**Forum for African Women Educationalists**

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This report was produced through a grant from the Forum for African Women Educationalists (FAWE) to the University of Maryland. All opinions expressed are those of the authors alone.

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## Executive Summary

Girls’ education, recognized as an international development priority for the last forty years, has seen shifting policy and research agendas – from a focus on enrollment numbers to considerations of quality and retention issues. A great deal of this research has concentrated on Africa due to low enrollment and completion rates among females. Despite this attention to girls’ education and extensive research on the benefits of educating girls, females still face numerous social, cultural, economic, and institutional barriers that keep them from enrolling in school or from attaining a high-quality education – especially in Africa.

Recent literature suggests that female teachers have an important role to play in addressing quality and access issues for girls. This literature review examines empirical evidence that shows how increasing female teachers in primary education may improve girls’ educational achievement and attainment. The review includes an examination of the barriers women teachers face and policies that may facilitate their entry to the profession. Beginning with a global view, the paper moves to women in the African context and examines their challenges through a gender lens.

This extensive review reveals several significant findings. High quality teachers (regardless of gender) positively affect students’ performance and enrollment. However, female teachers make a significant difference in developing countries – where girls often face considerable social and cultural barriers to an education. Women teachers lead to higher enrollment and retention rates for girls, allow female students to have more positive educational experiences, and even mitigate cultural and social barriers that keep girls out of school. While research strongly indicates female teachers make a difference in girls’ education, many countries have relatively few females in the teaching force. These numbers are lowest in Africa where women make up less than half the teaching force in 28 countries.

Literature focused on teacher recruitment and retention suggests that governments face considerable challenges when attempting to find teachers to meet personnel demands, especially with the introduction of universal primary education and Education for All (EFA) policies. Low pay relative to other trained professions, salary and hiring caps as a result of structural adjustment policies, bureaucratic problems (including late pay, slow hiring and firing systems, and unreliable pay delivery), lack of or poor training, and low public perception of teaching make it difficult to fill teaching positions. Recruiting and retaining female teachers in male-dominated societies presents a unique set of challenges, such as under-representation of women in leadership positions, safety concerns, patriarchal family relations that make relocation difficult, unbalanced family responsibilities for women that make outside or additional employment challenging, and sexual violence or exploitation. In order to address these challenges, this report makes several policy recommendations based on empirical evidence and best practices worldwide, for example:

* Expanding the pipeline of potential teachers
* Alternative teacher training
* Decentralized staffing to allow local recruitment in rural areas
* Incentives such as hardship pay for rural areas, providing safe housing, and benefits
* Empowering women to play major decision-making roles throughout the educational system.
* Gender sensitivity training for teachers, students, and administrators to create environments where women feel safe and respected

Despite the myriad challenges, with effective policies and strong financial investment, ministries of education can make great strides towards increasing the numbers of female teachers. Doing so is an essential step in reaching educational enrollment, retention, and achievement goals for girls worldwide.

## Introduction

 For the last forty years, girls’ education has been recognized as an international development priority. Research and policy agendas first focused on getting female students enrolled in school, and later efforts addressed the quality issues that helped retain them. Recent literature suggests female teachers have an important role to play in addressing access and quality issues in a girl’s educational experience – especially in places where women are discriminated against and under-represented in political, employment, and leadership positions. Africa presents a special case, with some of the lowest enrollment rates in the world due to the economic, social, and cultural barriers girls face. Further compounding the problem, research aimed to address the educational challenges on the African continent often applies the erroneous deficit model – or negative assumptions that different cultural and national groups do not value education and fail meet their own educational needs due to cultural deficiencies.

This literature review examines empirical evidence related to how increasing female teachers in African primary education may improve girls’ educational achievement and attainment. This includes an examination of the barriers women teachers face and policies that may facilitate their entry to the profession. First, this review provides a foundation by exploring how girls’ education has expanded into a development priority and then identifies benefits of educating females. Next, we examine the barriers girls face in attempting to receive an education, with special attention on quality issues. Third, we review literature on the effects of female teachers on girls’ education. Fourth, we address challenges for teachers entering the profession in the African context, with a special section devoted to challenges unique to female teachers. Finally, this literature review summarizes policy and practice recommendations to address teacher supply and demand issues in Africa in an effort to get more women into the teaching force.

## Conceptual Framework

 The purpose of this literature review is to propose strategies for increasing the number of female primary school teachers in countries where they are under-represented. Figure 1 illustrates the framework that guides these strategies. Obstacles women face while entering the profession is the central consideration, but this review expands on these barriers by first considering the obstacles to girls’ education. Girls cannot become teachers unless they are educated, so we consider what prevents girls from entering and succeeding in school as a precursor to their ability to later become teachers. The framework that guides our proposed strategies, therefore, considers then two major sets of barriers that affect women’s entrée to the teaching profession: barriers that girls’ face in receiving an education and that women face when considering, entering, and working in the teaching profession.

The framework also considers the effects of female teachers on a girls’ education in order to better understand how female teachers may help eliminate some barriers to girls’ education and illustrate the importance of increasing the numbers of women in the teaching profession. Finally, policy recommendations combine the two in order to propose concrete approaches intended to increase female primary school teachers. While this review considers these issues for teachers worldwide, it focuses on Africa. A gender dimension is also added to many of the considerations and recommendations within this report because it focuses on female teachers.

**Figure 1: Conceptual Framework**

## Girls’ Education as an International Priority

The United Nations’ World Conferences for Women in 1975, 1980, 1985, and 1995 recognized the importance of educating girls. Further, girls’ education has appeared on major international conference programs of action such as the International Conference on Population and Development in Cairo in 1994 and the Women’s Empowerment and Employment Conference in Copenhagen in 2010. The World Education Forum in Jomtien in 1990 followed by one in Dakar in 2000 established Education for All (EFA), with a major focus on universal primary education (UPE) and gender parity in education. Similarly, the second Millennium Development Goal (MDG) focuses on universal primary education and the third specifies eliminating gender disparity worldwide, including in education. Girls’ education changed into an international development priority over time. The Convention on the Rights of the Child, ratified by the UN in 1989, is the first legally binding convention that specifically recognized the rights of children.[[1]](#footnote-1) In it, access to a free education is identified as one of those rights (United Nations, 1994; UNICEF, 2008; Randell & Gergel, 2009; Migiro, 2010).

EFA and the MDGs launched education for all children onto the international agenda with force. In order to get more children into schools, international aid agencies, governments, and non-governmental agencies focused their energy and resources on interventions aimed at increasing enrollments – such as school construction and eliminating school fees. EFA and the MDGs also singled out girls’ education for special attention, recognizing the barriers unique to female students. The original target date for EFA was 2000, but was changed to 2005 then most recently to 2015 because few countries met the targeted goals.[[2]](#footnote-2) Despite the challenges, progress has been made with these efforts (Nilsson, 2003; UNESCO, 2004), but many countries are still at serious risk of not meeting UPE or gender equality goals. One message is clear, however, educating girls is widely recognized as an essential component of the international development agenda.

## The State of Girls’ Education

Despite not meeting EFA and MDG gender parity goals, progress has been made to increase enrollment rates. Girls’ enrollment rates are rising due in part to EFA efforts. The primary school net enrollment ratio for all children in developing countries grew from 80% to 87% between 1999 and 2008. The net enrollment ratio in primary school for girls show even more progress – from 79% in 1998 to 87% in 2008, and the percentage of female students who dropped out of school fell from 9% to 5% between 1999 and 2007. Despite these advancements – and research that cites the overwhelming benefits of educating girls – nearly 36 million girls of primary school age are not in school (UNESCO, 2011). The reasons for this phenomenon are explored below.

Much of the research reported above highlights the state of education in Africa. While Africa’s 53 countries have sizable variation in conditions between and within them, the overall state of girls’ education is very difficult. The African continent generally has very high poverty rates, wide urban/rural divides, some of the lowest school enrollment and retention rates, largest quality challenges, and widest gender divides anywhere in the world. In sub-Saharan Africa, the net enrollment rate for girls in primary school for girls is 75%, and 23% in secondary school. Notably, however, the net primary enrollment rate for girls in sub-Saharan Africa was 55% in 1999, indicating significant increases in girls’ enrollment rates in the lower grades (UIS, 2010). The continent also exhibits considerable differences. For example, in 2005 in East and Southern Africa, 67% of children completed primary education and continued on to secondary school, but only 52% in West and Central Africa (and a majority of those who do not attend are girls) (Rihani, 2006).

Additionally, HIV/AIDS – which has hit sub-Saharan Africa with the highest infection rates in the world – has created an additional obstacle. HIV/AIDS adversely affects girls; females are more likely to be infected with HIV/AIDS. Sixty-nine percent of people living with AIDS are in sub-Saharan Africa, and 62% of new people infected with HIV/AIDS are female. Further, women in sub-Saharan Africa are three times more likely to be living with HIV/AIDS than men (Rihani, 2006; UNICEF, 2004; Nilsson, 2003). Girls worldwide face challenges when attempting to access education, but girls in most parts of Africa face even greater ones.

## Benefits of Girls’ Education

In addition to equity issues, girls’ education research also focuses on the benefits of educating females, especially in developing countries. This research suggests that educating girls provides numerous social, heath, and economic benefits in these nations (Glewwe & Jacoby, 1993; Summers, 1994; Herz & Sperling, 2004; Levine & Birdsall, 2005; Rihani, 2006; Murphy & Carr, 2007). Educated girls and women are less likely to be victims of crime, to experience domestic violence, and to fall prey to human traffickers (both because education offers employment opportunities and reduces vulnerabilities). Educated women show higher levels of civic participation, and their children perform better in school. These women are also more likely to spend their money on human capital (such as education) for their children, and to enter the job market and earn money. Girls who stay in school longer are less likely to contract HIV/AIDS, have lower infant and maternal mortality rates, and smaller families. They marry later and have healthier children. Girls’ education increases per capita income growth, and many economists identify educational attainment as a poverty reduction strategy. Some economists also argue that educating girls yields, “a higher rate of return than any other investment available in the developing world” (Stacki, 1995, p. 30).

## Barriers to Girls’ Education

Girls face many barriers that prevent them from entering and participating in school. One of the driving factors behind all barriers to girls’ education is cultural bias against females. Sexist social and cultural assumptions about the role of women in society are perpetuated by male dominance in social and economic structures. The source of these assumptions is both cultural and historical (Choti, 2009). In most parts of Africa, for example, undervaluing girls in the education system historically stems from colonial rule where girls’ education was completely neglected at worst, and at best provided only training in simple skills to make them effective housewives – such as baking and needlework.[[3]](#footnote-3) This is combined with a heavily patriarchal, traditional African cultural system. In this cultural model, boys are given preference and men are expected to assume the social and economic development of society. As a result, many women are conditioned into believing that they are weaker than men and only capable of supporting men as wives and mothers. Culture plays another role. In many parts of Africa, for instance, a girl marries “into” her husband’s family. Parents perceive their daughter’s new family as the real beneficiaries of the education, or as a proverb from Mozambique states: “Educating a girl is like watering a flower in another man’s garden” (Roby, Lambert, & Lambert, 2009, p. 348). Sons, however, are expected to assume the role of caregiver for their parents later in life, so male children receive more educational opportunities so that they can provide stronger financial support as their parents age (Choti, 2009). Conversely, an investment in a girl’s education does not pay.

These assumptions are played out in different cultural practices such as emphasis on early marriage to boost a woman’s status and the payment of bride prices. Regarding education, parents face pressure to keep their girls at home, and girls face additional restrictions because of cultural rules – such as a requirements they be escorted by a male relative in public or social rules against females riding bikes. After being subjected to these values, girls themselves may also assume they are incapable of attending school. These assumptions play out in many ways and create serious barriers to getting girls into schools and keeping them there (Rugh, 2000; Herz & Sperling, 2004; Abrahams, Mathews, & Ramela, 2006; Nsubuga, 2006; Rihani, 2006; Murphy & Carr, 2007; Nwaobi, 2007; Bisika, Ntata, & Konyani, 2009; Roby, Lambert, & Lambert, 2009).

### Economic Barriers

Girls do more household work than their male siblings, (again due to cultural expectations) so families rely heavily on them to complete daily tasks in the home. The family incurs greater opportunity costs if girls are sent to school, and this is compounded if girls need to travel far from the home. Class schedules are often not conducive to a girl’s work schedule at home. Parents also perceive that girls have limited occupations available to them, so they do not understand the value in educating their daughters for the workforce (Nsubuga, 2006; Herz & Sperling, 2004).

School fees present yet another barrier unique to girls. Parents cannot afford to educate all of their children, so they favor sons over daughters because of cultural expectations. Or, they invest in the best performing child (Herz & Sperling, 2004; Huisman & Smits, 2009). Girls tend to underperform in developing countries because they are tired due to higher chore loads and poor diet (sometimes also a result of parents favoring their sons over daughters). Parents also hesitate to invest in school supplies such as uniforms or books for their female children.

### Institutional Barriers

Institutional accessibility presents another challenge to girls trying to enter school. Gender blind policies disadvantage girls more than boys. For example, age caps for admittance may exclude a girl who was kept at home for a few years to care for infants or one who was expelled for pregnancy (Rugh, 2000; Nsubuga, 2006). Further, policies like grade repetition more adversely effect girls. In Egypt, for instance, girls are more likely to drop out if they start later or repeat grades (Lloyd, Tawila, Clark, & Mensch, 2003). Further, even in cases where policies to protect girls exist, they are not always enforced. For instance, Dunne (2007) reports that in Botswana and Ghana there are clear policies to re-admit girls after pregnancy, yet girls cited pregnancy as the primary reason for dropping out in these countries. School administrators do not honor these policies due to the cultural and social stigma surrounding returners, so girls cannot benefit from policies intended to keep them in school.

 Lack of schools or adequate facilities at those schools also keep many girls out of the education system (Nsubuga, 2006; Huisman & Smits, 2009). Schools far from home mean greater safety risks for girls (either real or perceived by parents) as they walk to and from school. Parents often weigh the risks differently for their daughters than they do for their sons. Rugh (2000) found that parents had a “safe distance” they would send their girls to school that did not apply to boys. In Egypt, for example, girls’ enrollment in primary school dropped significantly when a school was more than 1.5 kilometers away from home, and in Malawi it was further than 5 kilometers. Schools often lack latrines, private latrines, feminine supplies, or gender specific latrines. Girls are much more likely to leave a school that lacks these facilities (Lloyd, Tawila, Clark, & Mensch, 2003; Herz & Sperling, 2004).

### Gender Based Discrimination and Violence as Barriers

Once girls enter school, they suffer unequal treatment that leads them to leave. In some rural settings, girls are pulled from class or school to help with necessary school functions such as preparing food or assisting teachers with non-education related tasks. They are also forced to do traditional gendered roles outside of school for staff members – such as cleaning the home of single male teachers (Rugh, 2000; Herz & Sperling, 2004). As a result of being removed from the classroom, they fall behind in classes or become frustrated and leave school.

Females also face gender-based violence and discrimination in schools. Action research from South Africa shows that girls fall victim to sexual violence when they travel to school, and they are harassed at school by their teachers and peers (Abrahams, Mathews, & Ramela, 2006; see also Lancaster, 2008). Researchers surveyed almost 1500 households and conducted focus groups in Malawi to investigate gender-based violence. Subjects identified ten forms of violence against girls in society,[[4]](#footnote-4) and forms of violence unique to their school experiences. The latter included: corporal punishment; beatings, verbal abuse, sexual assault, rape and inappropriate touching from male peers and teachers; and discriminatory practices in school. About 43% of girls reported an incident of inappropriate touching (or worse), and nearly 50% of those incidents they reported happened at school. About 61% of girls who experienced gender-based violence said it affected their performance in school (Bisika, Ntata, & Konyani, 2009). Herz and Sperling (2004) report that in Cameroon, 27% of girls surveyed had a sexual relationship with a teacher, and that 20% of those girls became pregnant as a result of those relationships. In a village in Mozambique, three times as many girls as boys were kept out of school. Parents or caregivers cited fears that their girls would be sexually abused or learn about prostitution at school as their primary reason for keeping girls home, and economic reasons as the primary reason for keeping their boys home (Roby, Lambert, & Lambert, 2009). Often there is no reporting structure and/or repercussions for gender-based violence or harassment, creating yet another barrier to girls entering a safe school.

### Poverty and Urban-Rural Divides as Barriers

Girls living in poverty face even more serious challenges. In Indian wealthy households, for example, boys enrollment exceeded girls by less than 3%, while for poor families, that number increases to more than 30% – ten times the rate (Murphy & Carr, 2007). The gap in median grade completed between the wealthy and poor is significant in most countries, but when gender is added to the equation, these divides are even more significant – 96% of wealthy males complete primary education worldwide, while only 29% of poor females do (Rugh, 2000).

 Urban and rural divides also contribute to girls’ school enrollment. Females in urban areas enter schools at a much higher rate than those in rural areas. In rural areas in Africa, female enrollment is low because there are few income generating opportunities, so parents cannot pay fees and rely on child labor to supplement their income (Choti, 2009). In Pakistan, girls in urban areas are educated at almost the same rate as boys, in rural areas less than a third of girls go to school (Lloyd, Mete, & Grant, 2007). Researchers attribute this to poor quality, underfunded schools in rural areas, and to the higher likelihood that girls are culturally, economically, and socially discriminated against in rural communities (Lloyd, Tawila, Clark, & Mensch, 2003), and to the greater reliance on girls for domestic tasks (Herz & Sperling, 2004).

## Quality Considerations

Getting girls into school, however, is only part of the picture. Many females leave school after entering – girls have much lower completion rates than males, especially in secondary school. Even if females get to school and stay, they do not necessarily receive a high quality, relevant education. Disengaged or absent teaching staff, overcrowded classes, and a language of instruction that differs from a student’s first language affects the educational experience for both boys and girls (Rugh, 2000; Levine & Birdsall, 2005). Rihani (2006), however, notes that, “Boys and girls may suffer from low learning if the quality and relevance of education and teaching is poor, but girls tend to suffer more because of an ingrained gender bias” (p. 23).

Quality has long been recognized as one of the most important issues in girls’ education, and has long been a priority in the international development agenda. Providing a quality education, however, presents researchers and practitioners with serious challenges. Quality is difficult to define, and the variables are difficult to identify and measure (Nilsson, 2003). Comparisons between countries are very difficult because quality issues play out very differently on the ground, or as Rugh (2000) notes, they are “culturally bound” (p. 91). Further, quality can refer to both the educational environment and the transfer of knowledge from teacher to pupil.

Nilsson (2003) cites the definition of quality in EFA Global Monitoring Report (UNESCO, 2011) as one of the most widely recognized measures of quality. The report gauges quality in economic terms: inputs, teaching/learning processes, and outcomes. Inputs refer to curriculum, teachers’ qualifications, local support, and characteristics – particularly of the student, household, and community. Teaching/learning processes describe what actually happens in the classroom, and outcomes assess what students learn, often by measuring the number of students who pass standardized exams. Lloyd, Mensch, and Clark (2000) note that broad sweeping quality factors are communicated in reports like the GMR, but in practice, researchers and development agencies tend to focus more on enrollment, retention, and test scores as measures of quality, especially in developing countries. They argue that this practice is shortsighted because it does not present a complete picture of the issues. They suggest shifting the focus to include factors like teacher training, classroom experiences, and availability of adult role models. These models virtually ignore gender bias. Girls and boys have very different experiences in schools – girls experience a lower quality educational experience. They are subjected to behaviors (such as to lower expectations from teachers and being routed to lower paid areas of study (Molyneaux, 2011)) due mostly to cultural and social assumptions that males are superior to females.

 The UNESCO Institute for Statistics (UIS, 2010) uses three dimensions to assess quality in their extensive yearly digest of education statistics. They also apply their dimensions directly to girls’ education. UIS maintains that quality is a measure of three major variables: environment (where learning takes place), curriculum (content of the learning and the student experience), and teachers. When specifically considering girls, accessing environmental factors at schools should address girls’ specific needs such as the distance of schools to girls’ homes, provision of facilities for girls and boys where necessary, and freedom from threats of sexual or physical violence and bullying. The curriculum should be free of gender bias and culturally sensitive. Teachers should be well trained, sensitive of gender issues, and free of bias as well.

UIS (2010) also argues getting girls into schools and keeping them there requires addressing equity, not just parity issues:

In practice, the concept of gender parity in education should be considered distinct from the concept of gender equality. The former aims at achieving equal participation for girls and boys in education based on their respective proportions of the relevant age-groups in the population. Gender equality is understood more broadly as the right to access and participate in education, as well as to benefit from gender-sensitive educational environments, processes and achievements, while obtaining meaningful education outcomes that link education benefits with social and economic life. Achieving gender parity is therefore understood as only a first step towards gender equality (p. 12).

Herz and Sperling (2004) also support that reconceptualizing girls’ educational challenges requires addressing parity *and* equality issues. They argue that addressing quality issues is the real key to tackling inequality in schools. They suggest making schools more “girl friendly,” and they consider many of the same environmental factors laid out by UIS. Some of their suggestions include private bathrooms for girls, assuring safety and privacy that are culturally sensitive, addressing teachers’ biases and behaviors, and engaging in gender sensitive teaching. One additional consideration they suggest is introducing more female teachers to the classroom. UNICEF has long been a supporter of girl friendly schools, a label they changed in recent years to “child friendly” schools. In this rights-based model, UNICEF identifies gender sensitivity as one of the many components of child friendly schools (UNICEF, 2004).

Increasing the number of women teachers is often cited as a major strategy for promoting girls’ education, especially in developing countries. In addition to Herz and Sperling’s report, many other researchers recommend more female teachers as one answer to addressing some of the serious access, quality, and equity issues girls face when trying to receive an education (see, for example, Rugh, 2000; World Bank, 2001; Nilsson, 2003; Rihani, 2006; Roby; Lambert, & Lambert, 2009). The remainder of this report focuses on the effects of teachers (particularly of female teachers on girls’ education), explores the barriers that keep women out of the teaching profession, and examines policies and practices that can change that situation.

## Effects of Teachers

 As the above discussion about quality illustrates, teachers are a major consideration when examining quality issues in education. Many quality recommendations – especially those concerning girls – center on the training, retention, and recruitment of educators. This section reviews literature on the effects of teachers on a child’s educational experience in general before considering female teachers specifically.

 Almost all early research on the effects of teachers comes from the United States. In 1966, a government commissioned report entitled the “Coleman Report” described the state of education in America. The study found that students’ home background effects (such as socio-economic status) had a much greater impact on student achievement than any school effects. The report’s findings altered perceptions about the importance of teachers and schools and led to research focused on families and children instead. Recent investigations, however, are beginning to shift that focus again back to teachers and schools, and researchers are starting to find clear links between teachers and student learning (Nye, Konstantopoulos, & Hedges, 2004; Rivkin, Hanushek, & Kain, 2005).

Heyneman and Loxley (1983) challenged the Coleman Report and its assertion that school factors, including teacher quality, matter little for student achievement and that family characteristics have a bigger impact on achievement. They examined the influences of gross national product per capita, school and teacher quality[[5]](#footnote-5), and pre-school[[6]](#footnote-6) variables on students’ science and math scores on standardized tests in 29 low-, middle-, and high-income countries. Regarding teacher quality, the authors concluded that in high-income countries, pre-school variables were stronger determinants of achievement than teacher and school quality, but showed the reverse in low-income countries. They found that school and teacher quality effects account for variation on students’ test scores in developing countries, but not pre-school variables. Overall, they concluded that the Coleman Report’s findings were only applicable in high-income countries. These findings were controversial, however, and researchers have since contested them (Baker, Goesling, & LeTendre, 2002).

Baker, Goesling, and LeTendre (2002) reassessed Heyneman and Loxley’s findings 25 years later with what they identified as more standardized data.[[7]](#footnote-7) They examined the effects of gross domestic product per capita, school[[8]](#footnote-8) and teacher[[9]](#footnote-9) quality variables, and non-school variables (family SES,[[10]](#footnote-10) student gender and age, and the language spoken at home vs. language of testing) on student achievement – measured by the results of math and science items on the Third International Mathematics and Science Study (TIMSS) test from 36 countries. Contrary to Heyenman and Loxley, they found school quality matters, regardless of GDP. They also state, however, “In all of the countries in the sample family-background variables are much more significant predictors of student achievement than are school resource variables. The significant effects of family background persist even after controlling for the quality of resources and national levels of economic development” (p. 304). Variance in student achievement attributable to family background is similar across nations regardless of GDP. They note that this discrepancy may be partly due to the fact that their data came from different countries than Heyneman and Loxley (only 41% of the original countries were represented), and that the countries varied more by region and GDP. They also acknowledge that modern statistical methods that did not exist during the original study were applied later (namely hierarchical linear regression), and that Heyenman and Loxley did not control for instructional practices.

Other research indicates that teachers affect enrollment. A multivariate analysis of survey data from 30 developing coutries suggests that high student teacher ratios are positively correlated with higher drop out rates, and in districts with more teachers, children had a better chance of going to school (Huisman & Smits, 2009). Developing countries where 9 in 10 children complete primary school, the student-ratios are 26 to 1, and the ratio nearly doubles in countries where less than one in two children complete their primary educations (UNESCO, 2009). In Indonesia, enrollment expanded for both genders when the number of teachers increased, but not when the number of schools increased (Herz & Sperling, 2004). Conversely, in Central and Western Africa, student-teacher ratios are the highest in the world, and girls’ enrollment rates are the lowest in the world (UIS, 2010). Research also indicates that a teacher’s level of training matters. Higher quality teachers are most often linked to better student performance on standardized tests (Rivkin, Hanushek, & Kain, 2005). In fact, according to Nilsson (2003), “[T]he single most influential factor for…students’ results is the teachers’ qualifications” and that teachers are a school’s “most valuable resource” (p.10).

Aslam and Kingdon (2007) argue that teacher quality research takes two major approaches. The first is to link teacher characteristics to pupil achievement. The second is to measure student achievement gain by groups of students who are taught by the same teacher. Studies under the first approach conclude that certification, training and experience do affect student achievement. The second approach argues that experience is most important, but training, and certification have little effect. For example, research from the United States illustrates that teacher effects – especially those that measure quality (like years of teaching experience) can have positive effects on student performance (Nye, Konstantopoulos, & Hedges, 2004). Longitudinal data from Texas found – after controlling for student characteristics – students performed better on standardized math and reading tests if they had more experienced teachers. The researchers suggest that providing more experienced, senior teachers to lower achieving students in the early grades will help to close the achievement gap for more disadvantaged children (Rivkin, Hanushek, & Kain, 2005). Nye, Konstantopoulos, & Hedges (2004) supported these findings. Their data indicated that students with more experienced teachers fared better on standardized tests in primary schools in Tennessee, and that student SES and teacher education level did not seem to matter. Jepsen’s (2005) teacher survey data from several states also illustrated that a teacher’s higher experience level positively affected student performance.

These two approaches and their associated research findings regarding teacher quality (namely that certification and training do not matter) are contested among researchers. Some argue that they are incorrectly universally applied to all countries, even though the research stems from developed countries where student, teacher, and school needs differ culturally and economically from those of developing countries (Heyneman & Loxley, 1983; Warwick & Jatoi, 1994; Baker, Goesling, & LeTendre, 2002). Other researchers argue that teaching techniques and classroom practices are equally as important as how teachers are trained or how long they have taught, and call for broader evaluations of how teacher quality effects achievement (Aslam & Kingdon, 2007).

Aslam and Kingdon (2007) challenged the two major approaches to teacher quality evaluation that examine what they refer to as “resume” measures of teacher quality (certification, training, and years of experience). They examined the effects of teaching techniques and classroom practices on student achievement in 65 schools in India. They found that students who were taught by teachers who prepared lesson plans, asked many questions, and quizzed on past material performed much better than students whose teachers did not.

 Evidence is recently emerging from the developing world that contradicts findings from developed countries. In Botswana, students of more highly trained teachers showed higher levels of achievement (Botswana Ministry of Education, 2000), and, in Bangladesh, students (both boys and girls) of teachers who had both college degrees and education training had higher educational attainment (Khandker, 1996). Teacher quality also influences enrollment levels. Enrollment of both boys and girls increased in Swaziland with the increased levels of teacher training (Herz & Sperling, 2004).

Teacher quality can affect enrollment in different ways. Researchers observed students and teachers in primary grades 7 and 8 in Kenya, examining quality variables and how they affected boys and girls. When school environments were more supportive of girls,[[11]](#footnote-11) females were less likely to drop out during those critical transition years. In fact, the researchers cited teacher interactions (regardless of gender) as the most important factor that kept girls in school (Lloyd, Mensch, & Clark, 2000). Teachers – specifically high quality teachers – appear to affect students’ performance and enrollment. In the case of female teachers, however, those effects can be magnified, especially for girl students (Warwick & Jatoi, 1994; Khandker, 1996; Botswana Ministry of Education, 2000; Lloyd, Mensch, & Clark, 2000; Aslam & Kingdon, 2007).

## Effects of Female Teachers

As noted earlier, female teachers are often recognized as a key factor for encouraging girls’ enrollment and for addressing quality and retention challenges. Policy and research reports suggest increasing the number of women in the teaching profession as a strategy for getting girls in school and retaining them (Rugh, 2000; World Bank, 2001; Herz & Sperling, 2004; Rihani, 2006). This section aims to examine the effects female teachers have on girls’ enrollment, retention, academic performance, and school experiences.

### Effect on Enrollment and Retention

As the numbers of women teachers grow, so does girls’ enrollment. Parents are more likely to send their daughters to schol if there is a female teacher (Herz & Sperling, 2004; Rihani, 2006). In rural Pakistan, the presence of female teachers increased girls’ enrollment, but did not appear to effect boys’ enrollment (Lloyd, Mete, & Grant, 2007). Handa (1999) applied an econometric model in Mozambique to predict how to increase school enrollments. He notes:

School quality, measured by the number of trained teachers in the administrative post, has a positive and significant impact on enrolment, but it is the gender composition of the teaching staff that is even more important in determining the household decision to send children to school. Both the simple proportion of teachers who are female, as well as the share of trained female teachers among all teachers are important positive determinants of enrolment rates. Raising the proportion of female teachers from 0.37 to 0.50 in the administrative post will raise enrolment rates by roughly 5 percentage points (p. 26).

In a multivariate analysis of survey data from 30 developing countries and nearly 20,000 households, Huisman and Smits (2009) found that as the percentage of female teachers increased in a school district, the likelihood that girls will go to school also increased after controlling for family effects. Further, the more social and cultural disadvantages a girl faced, the greater the effects of her female teacher. They also found that the presence of female teachers mitigated some of the major social and familial factors that kept both boys and girls out of school. The UNESCO Institute for Statistics (UIS, 2010), in its most recent education statistics digest, notes that the percentage of female teachers at the primary level is correlated with girls’ gross enrollment rates in secondary school. The three countries with the lowest gross enrollment rate at the secondary level for girls – Central African Republic (10%), Chad (12%), and Somalia (5%) – also has some of the lowest proportions of female primary teachers – 14%, 28%, and 17% respectively (UIS, 2010).

Female teachers also affect retention rates, sometimes for both boys and girls. Generally, schools with more gender-balanced work forces tend to positively affect a girl’s ability to join and stay in school (UIS, 2010). Higher proportions of female teachers in Bangladesh led to higher enrollment and lower rate of failure for both boys and girls at primary level; moreover, at the secondary level the effects of female teachers are more pronounced. At the secondary level, “The sex of teachers and their education have a greater effect on schooling attainment than do parents’ education and other school characteristics” (Khandker, 1996, p. 26). Drop out rates for girls were even lower if their female teachers had college degrees.

### Effect on Academic Performance

Research on the effects of female teachers on students’ academic performance are mixed. A great deal of research, especially in developed countries, focuses on male underrepresentation in the teaching force because boys are performing significantly lower than girls in reading and their dissatisfaction with school is growing (Lahelma, 2000; Holmlund & Sund, 2008; Carrington, Tymms, & Merrell, 2008; Harris & Barnes, 2009). Research illustrates that teacher gender affected primary school outcomes more than secondary school outcomes (Holmlund & Sund, 2008; Harris & Barnes, 2009), but Carrington, Tymms, and Merrell (2008) contradict this finding.

In Hong Kong, for example, women comprise two-thirds of the teaching force. In a study of the effects of gender on student performance, students (regardless of gender) performed better on an international reading assessment when taught by women, and they had better attitudes toward reading. The authors found that men and women teach reading differently – male teachers tend to use large group direct teaching followed by comprehension questions. Females use a wider variety of teaching strategies and were more versatile (Lam, Tse, Lam, & Loh, 2010).

In the United States, researchers examined eighth grade students’ standardized test scores. At that grade level, boys’ math and science scores are usually higher than girls, and reading scores are lower – and that gap increases with age. Female teachers had a positive (though small), statistically significant effect on girls’ scores, but a larger statistically significant negative effect on boys’ scores. Girls’ performance also varied by subject – for example, having a female math teacher had a negative effect for both genders while for science it affected girls positively and boys not at all. Subjects in which boys performed the lowest were also those that had far more women teachers – such as reading (Dee, 2007). However, these results are challenged. Lam, Tse, Lam, and Loh (2010) dispute these findings, maintaining that Dee’s choice of a regression model for this study was not correct.

In Sweden, the gender of a teacher did not seem to have an effect on student performance, measured by test scores and grades. High school girls consistently outperformed boys in reading and the performance gap was swiftly closing in math and science. The authors found that the gender of a teacher had no effect on student outcomes and could not explain the gender gap in performance (Holmlund & Sund, 2008). Researchers who examined test scores from nearly 9,000 primary students in the United Kingdom also found that the gender of the teacher was not significantly related to students’ performance on the examination (Carrington, Tymms, & Merrell, 2008), and some longitudinal data from the United States indicates that a teacher’s race and gender does not affect students test scores in either eighth or tenth grades (Ehrenberg, Goldhaber, & Brewer, 1995). The only examples from developing countries come from Botswana where researchers found a positive relationship between the proportion of female teachers and girls’ achievement levels in school (Rugh, 2000), India where a study found that the test scores for girls were higher in subjects taught by female teachers and dropped when the same student was instructed by a male teacher (Aslam & Kingdon, 2007), and Pakistan (Warwick & Jatoi, 1994) – outlined below.

Warwick and Jatoi (1994) challenge the practice of using the United States as the paradigm for the effects of teachers on student performance. They argue that findings from the U.S. are not universal and that cross-national comparisons of gender effects are difficult because of cultural and social perspectives on gender roles. The researchers interviewed teachers, students, and supervisors in over 500 government schools in Pakistan – both single and co-educational schools – controlling for student social class, student gender, and teacher characteristics to assess the effects of teacher gender on student math scores. Female students of more highly trained female teachers in urban schools who employed certain teaching techniques performed the best on math tests. The authors argue that the inability of rural schools to attract and retain female teachers with training in math (due to social biases and safety issues) may be the largest influence on the lower math scores of rural female students.

### Students’ Perceptions of Teachers

In developed countries where female teachers far outnumber male teachers, gender seems to matter little regarding students’ perceptions of their teachers. In Australia, kindergarten boys identify more with their male teachers and girls with their female teachers (Harris & Barnes, 2009). In Australian high schools, however, boys identified with teachers regardless of their gender, while girls still tended to feel closer to their female teachers. Those perceptions did not affect their academic performance, nor did the gender of their teachers (Martin, 2005). In Finland, students had more positive perceptions of teachers that they identified as more skilled, but gender did not matter in their perceptions (Lahelma, 2000). In contrast, in developing countries students’ perceptions have a greater impact. For example, Egyptian girls aged 10-19 were less likely to drop out of school if a higher percentage of girls at that school reported that there was an adult at the school who they felt they could talk to (though gender did not matter). Females were also far more likely to drop out if her teacher told her she is a failure (Lloyd, Tawila, Clark, & Mensch, 2003).

### Teachers’ Perceptions of Students

All of the research on the effects of teachers’ gender on perceptions of their students comes from developed countries. Studies from the United States indicate that female teachers were more likely than male teachers to perceive boys as disruptive, but subject of instruction skewed the effects. For example, a female science teacher was much less likely than a male teacher to describe her male students as disruptive (Dee, 2007). Greece is one few the developed countries with almost the same number of female and male primary school teachers. In peer and teacher evaluations, teachers tended to enforce typical gender stereotypes on children by gender (e.g., boys are aggressive and girls are agreeable) and that affected how the teachers rated their students’ performance. Teachers rated pupils of opposite gender more positively – that is female teachers rated their male students more favorably and vice-versa (Hopf & Hatzichristou, 1999).

### Teachers as Role Models

One way that females make a difference for girls in developing countries is in their ability to act as role models. Rihani (2006) notes one of the factors that prevent females from going to school is that: “Girls face inequities in the classroom and often lack female teachers as role models” (p. 2). She reasons that, “Whether or not girls are exposed to female teachers who can serve as role models is one of the greatest quality indicators. Female teachers are less likely to have gender biases against girls and are far less likely to sexually harass or otherwise demean their female students” (p. 23). Similarly, UIS (2010) reports that positive female role models are a contributing factor in higher girls’ and young women’s enrollment and retention rates. Research out of Nigeria (Lee & Lockheed, 1990) and Egypt (where revised teacher selection processes led to greater numbers of female teachers) (Rugh, 2000), girls who reported that having more positive female role models in school were more likely to stay in school.

### Single Sex Schools

In a book addressing the challenges of increasing enrollment among the poorest and most disadvantaged girls in the developing world, Lewis and Lockheed (2006) provide recommendations for getting more girls in school, including “expanding options for schooling.” One of their options for expansion is establishing girls’ schools. They note that single sex schools are better at “attracting, retaining, and teaching girls, particularly in countries where girls or women are secluded and isolated” (p. 121) than co-educational institutions. Similarly, reports published by major international donor agencies and development organizations recommend single sex schools as an answer to increasing girls’ enrollment and retention in developing countries (Herz & Sperling, 2004; Rugh, 2000), so this research is summarized next.

 Literature on single sex schools is limited. Researchers agree the literature is dated, and in developing countries these schools tend to be private, therefore attracting girls from higher SES and with more educated parents (Lee & Lockheed, 1990; Jimenez & Lockheed, 1989). Also, countries that segregate schools by gender are also often countries that culturally discriminate against girls and place a lower priority on their education (Murphy & Carr, 2007; Lloyd, Mete, & Grant, 2007). For example, Lloyd, Mete, and Grant (2007) note that in Pakistan – one of the most widely studied countries regarding single sex schools:

[T]he same societal attitudes emphasizing girls’ modesty, protection, and seclusion, which are said to limit parents’ willingness to send their girls to school, are also likely to be prevalent among the provincial and district education officers respon­sible for building and provisioning new schools in relatively poor rural areas, as well as among the teachers who staff the schools (p. 102).

These attitudes about girls’ education have led to a lack of quality schools for girls, and little research about these institutions. Despite these limitations, single-sex schools provide insight into the effects of female teachers.

 In literature on single-sex schools from developed countries, researchers agree that the effects may be confounded by factors outside school such as SES or student selection (Lee & Lockheed, 1990). For example, in 2000, both boys and girls in single sex schools in Australia outperformed their peers in co-educational institutions on the Programme for International Student Assessment (PISA), an international reading literacy test commissioned by the Organization for Economic Cooperation and Development (OECD) and administered to 15-year olds in 32 different countries. Researchers in New Zealand attributed the difference in performance to the fact that single gendered institutions are often private, attributing positive results to selection processes and schooling arrangements, not gender (New Zealand Ministry of Education, 2001). Researchers in Belgium had similar findings. After controlling for students’ intake characteristics, neither boys nor girls performed differently on language or math assessments in co-educational when compared to single sex schools. They attributed the differences between co-ed and single sex schools more to selection processes and intake than any other variable (Van de Gaer, Pustjens, Van Damme, & Munter, 2004).

Research from developing countries shows different findings regarding student performance in single sex schools. Studies of mathematics performance among females in Thailand (Jimenez & Lockheed, 1989) and Nigeria (Lee & Lockheed, 1990) found that girls in single sex schools significantly outperformed their peers enrolled in coeducational institutions, while boys in coeducational schools fared better than their peers in single sex schools. Lee and Lockheed attribute the limited effects of single sex schools on boys to the fact that they already live in a male-dominated society, and thus receive few benefits from these types of institutions.

Jimenez and Lockheed’s (1989) data also suggests that the variable that most significantly predicts female performance in single sex institutions is not related to teachers or content, but to students’ peer groups. The authors suggest this may be attributed to greater opportunities for leadership in girls’ schools, suppressed in traditional coeducational schools. Lewis and Lockheed (2006) also argue that the establishment of girls’ schools appears to be situation specific, and that in areas where girls are culturally or socially isolated these schools may provide viable alternatives. Lee and Lockheed (1990), earlier argued, however, that the girls enrolled in single sex schools may have outperformed their peers in coeducational institutions because:

In the girls’ schools in this sample, all teachers in the sampled math classes were female, a condition fostering a symbiotic and supportive relationship between female staff and students. Girls in Nigerian single-sex schools may be inspired to academic excellence by female role models. While girls’ school students see only women mathematics teachers, the girls in coeducational schools are in contact with only a small number of such females, as the mathematics staffs of their schools are less than 20 percent female (p. 228).

Further, evidence about enrollment from developing countries also illustrates that single-sex schools make a difference for girls. In villages in Pakistan, the presence of a girls’ only school significantly increased girls’ enrollments (Kim, Alderman, & Orazem, 1996). The introduction of single-sex schools in rural Bangladesh starting in the first schooling years (traditionally they had started in third grade) increased the likelihood that parents of girls would send their children to school, and they cited the guaranteed presence of a female teacher as their primary reason. Parents did not even trust well-known men from the community to teach their girls (Lloyd, Mete, & Grant, 2007). Research from single-sex schools in developing countries offer insight to how female teachers might make a difference to their girl students, especially concerning enrollment and academic performance in developing countries.

### Summary: The Effects of Female Teachers

Recent research illustrates that well-trained teachers are a good indicator of educational quality. Having more available teachers also appears to be important as lower student-teacher ratios mean higher enrollment rates, especially for girls. Female teachers have positive effects as well – especially concerning access. In developing countries, female teachers lead to higher enrollment and retention rates for girls. Literature from developed countries show mixed results for student achievement. Overwhelmingly, however, this research is in response to the effects of female teachers on boys because women are over-represented in the teaching force, not to address attrition and enrollment issues. While this work offers a foundation, it addresses completely different concerns and is less relevant to social contexts in developing countries.

In countries where girls face serious barriers to going and getting in school – many of which are cultural – female teachers make a difference for breaking down those barriers. The Huisman and Smits (2009) findings from 30 countries are particularly significant. It provides a timely examination of the incredible impacts that female teachers can have regarding girls in developing countries. Their work also illustrates that the presence of a female teacher mitigates the social and cultural barriers that keep girls from going to school – and that the greater those challenges, the greater the positive effects of female teachers.

Empirical evidence illustrates the importance of female teachers for promoting girls’ education. Recruiting and training individuals to serve as educators presents numerous challenges. Africa – noted earlier – is a continent with growing and highly diverse needs, especially when considering the barriers to girls’ education. It presents researchers and practitioners with a unique set of challenges. This report now focuses on the challenges of staffing teaching positions in African countries, followed by considerations specific to female teachers on that continent.

## The Challenges of Teacher Supply and Demand

 Many more teachers are needed to fulfill schooling demands in the developing world. This section examines those challenges for all teachers, and the next section focuses on the challenges unique to female teachers. As a result of universal primary education, the need for trained teachers is growing – 10.3 million educators need to be recruited between 2007 and 2015 (Nilsson, 2003; UIS, 2010). These needs are particularly high in secondary schools because the student numbers are growing rapidly as students who entered primary school under UPE finish and wish to move on to secondary schools, and the numbers of trained teachers are not growing at the same rate (Mulkeen, 2010). In Africa, estimates show that up to 81% more primary and secondary teachers are needed (Nilsson, 2003), but estimates are imprecise because it is difficult to measure projected needs and to account for attrition rates in any given year (UNESCO, 2009). Similarly, teachers are unevenly distributed across the continent. While UIS (2010) reports that primary school student-teacher ratios in sub-Saharan Africa are 45 to 1,[[12]](#footnote-12) this regional aggregate hides rural-urban and other differences. In urban primary schools in Malawi and Uganda, for instance, the student-teacher ratios are 46 to 1 and 40 to 1, respectively – close to the UIS average. Rural schools in the same countries, have ratios of 81 to 1 and 93 to 1, significantly higher (Mulkeen, 2010).

### Teacher Remuneration

Finding teachers to fill the projected demand is challenging. Teachers are generally poorly paid and face difficult working conditions. The teaching profession requires fairly high levels of education, but educators are not compensated accordingly – especially when compared to similarly educated professionals (Nilsson, 2003; Sinyolo, 2007). On surveys from six countries in Africa (The Gambia, Kenya, Lesotho, Tanzania, Uganda, and Zambia), survey data from teacher’s unions suggested that teachers are paid much lower when compared to other professionals with comparable numbers of years of education (Sinyolo, 2007). In Zambia, for example, the average monthly salary for elementary, lower secondary, and upper secondary teachers is $200, $300, and $325 respectively. Calculations from a local NGO, however, calculate the poverty line (a comprehensive budgetary projection for a family based on the cost of basic necessities) at $375 per month. Primary school teachers earn well below that. In many low-income countries, teachers are not paid enough to meet even their basic needs – such as buying food for their families (Bennell, 2004; Shriberg, 2007).

Teachers are often forced to take on outside employment (such as moonlighting as teachers at other schools, tutors, or starting small businesses) to supplement their incomes. These extra hours leaves little time for planning, which affects teaching quality (Sinyolo, 2007; Molyneaux, 2011). Moonlighting also leaves limited time for regular school duties and leads to absenteeism as teachers leave their assigned schools to pursue additional work elsewhere, leaving classes unattended and little time to devote to activities outside teaching (such as meeting with students or leading extra-curricular activities).

Low wages effect schooling in other ways. Low pay is a significant contributing factor to low teacher motivation in public schools. While in some countries public teaching jobs are better paid, private schools pay more in other countries. In Tanzania, for example, private school teacher salaries are twice that of public school salaries. The few qualified teachers available are lured away from public schools in the interest of pay (Nilsson, 2003). Salary makes a difference for perceptions of the teaching profession. Not surprisingly, the Department of Education in Mozambique (2000) found that if it offered higher salaries to teachers, individuals were more attracted to the profession.

### Structural Adjustment Policies

In developing countries with the greatest need, Rowden (2009) argues, international donor agencies provide additional barriers that affect teacher pay. Structural adjustment policies (SAPs), conditions imposed by the International Monetary Fund (IMF) and the World Bank in the 1980s to reduce debt loads in developing countries, dictate conditions for international aid. When structural adjustment policies were imposed, developing countries lost autonomy for policy and economic decisions as the IMF and the Bank exercised monopoly power. Many nations adopted structural adjustment policies (even outside loan agreements) to attract foreign aid or to gain membership into trade organizations. Privatization and debt reduction strategies lie at the heart of these policies. Developing countries were forced to initiate mass reductions in public spending and civil service reform. This caused employment levels to drop and caused mass unemployment. Employers were given more power to decide employment terms and conditions in the interest of privatization, so real wages fell and unions lost bargaining power. Rowden also critiques the IMF’s enforcement of low inflation rates because this practice controls the number and wages of public sector employees, thus contributing to a drastic shortage of teachers.

Structural adjustment influences educational spending. For example, the World Bank’s criteria for Fast Track Initiative countries state that teachers’ salaries cannot exceed three and a half times GDP per capita (UNESCO, 2009). This is a completely arbitrary imposition. There is no evidence that salaries should bear some uniform relation to GDP per capita, and they certainly do not in developed countries. Salary caps also destroy educators’ bargaining power and create pay ceilings that may render teaching unattractive to younger generations. Moreover, the IMF imposes ceilings on the number and wages of government employees in developing countries, making attainment of UPE virtually impossible (Archer, 2006). Recent trends in teacher salaries also reflect structural adjustment policies. UNESCO (2009) found that in 15 West African countries, teacher salaries were greatly reduced in the 1980s in the interest of creating macroeconomic stability in the region. Since teachers’ salaries represented a bulk of the civil service payroll in these countries – and reduction in public expenditure was the heart of the SAPs – salaries and promotions were frozen, and pay scales downsized. UNESCO attributes present low teacher pay directly to SAPs over thirty years ago. Also, the justification for salary caps can be UPE – teacher pay is regulated in the interest of reducing costs and hiring more teachers to reach all primary school children. Government representatives note that given the limited funds for education, money paid to teachers is money that is diverted from resources like books, thereby limiting the number of students who can fully participate in the education system. Bennell (2004) also argues that the push for UPE has led to an under-emphasis on teacher salaries in the interest of supposed efficiencies, greatly lowering teacher morale and the attraction to the profession.

### Civil Service Nature of the Profession

Teachers are government employees in most African countries, with attendant bureaucratic problems (Mulkeen, 2010). Hiring and firing systems are slow. Few temporary options are available for filling positions for short-term absences like maternity leave and illnesses. Once teachers leave, filling their jobs is a slow process. In a vast majority of developing countries, teacher hiring is centralized. As a result, many schools are understaffed or worse – students sit in classrooms without a teacher. Individuals who may want to enter the teaching profession are unable to because the process is slow, so they seek employment elsewhere.

Many developing countries also have poor or unreliable systems of delivery for teacher salaries – especially in rural areas. Administrators or teachers sometimes have to travel long distances to receive their compensation – often in cash. Travel is often not safe and not compensated. Also, teachers may have to wait long periods for their pay because of slow or unreliable salary delivery systems (Sinyolo, 2007; Mulkeen, 2010). These factors all lower the attraction to the profession.

### Perceptions of Teaching

One of the biggest challenges ministries of education face worldwide is public perception of teaching as a profession (Bennell, 2004). Often viewed as a career of “last resort,” teaching lacks the professional exclusivity shared by higher esteemed professions (such as law or medicine). One factor is the sheer size of the teaching force – teachers often comprise one-half to two-thirds public sector employees in developing countries. As a function of low pay, difficult working conditions, and low public esteem of their profession, teachers lack a long-term commitment to teaching and it is difficult for governments to find individuals willing to enter the profession. Teachers also experience slow pay progression, public perception of low status, few promotion opportunities, and few additional benefits (Mulkeen, 2010). During interviews and focus groups in Tanzania, teachers reported discouraging their own children from pursuing their profession due, in part, to public perceptions (Sinyolo, 2007).

### Working Conditions and Support

Teachers in most parts of Africa face particularly poor working conditions. Educators often work in dilapidated buildings with few books, desks, or other resources (Glewwe & Jacoby, 1993). Urban schools may have more teachers than needed and underutilize their teaching force while rural schools have fewer teachers and enormous classes. In Zambia, student-teacher ratios average 76 to 1 in first through fourth grades (Mulkeen, 2010). These ratios make a difference in student achievement. Research from the United States illustrated that class size is a major factor affecting student achievement. Students in smaller classes had better test scores in math and reading[[13]](#footnote-13) (Rivkin, Hanushek, & Kain, 2005). The Government of Mozambique (2000) determined that poor working conditions are a major contributing factor to low teacher motivations and satisfaction.

 Systems for managing teachers are weak. In case studies of eight African countries – The Gambia, Lesotho, Malawi, Uganda, Zambia, Zanzibar, Liberia, and Eritrea – Mulkeen (2010) reports that a majority of head teachers are untrained and that schools are rarely monitored. In some countries inspector-teacher ratios were as high as 1 to 700. Inspectors rarely visited their schools, but those who did seldom used centralized or standardized systems to report weaknesses in schools or individual teachers. School visits often focused on factors like number of books and quality of facilities, not pedagogical issues. There are also few systems in place to discourage or discipline teacher absenteeism. Further, student performance was rarely measured, so teacher effectiveness in this realm is virtually unknown. Lack of oversight, according to Levine and Birdsall (2005), leads to high rates of absenteeism as does low pay and poor working conditions. In a study of ten developing countries, they found absenteeism ranged from 11% to 28%.

### Training

Teacher training presents an additional challenge when considering teacher supply and demand. An untrained or poorly trained teacher affects the quality of a student’s educational experience (Lloyd, Tawila, Clark, & Mensch, 2003). In Africa, this translates to the dilemma of a need to lower standards to meet teacher supply and a need to increase standards to address teacher quality. Governments find it difficult to anticipate their needs. Sometimes they even over compensate. After a push for training new teachers in Zanzibar in 2007, for example, newly trained teachers comprised 33% of the total teaching force. The government overestimated teaching needs, so many of these new graduates were unemployed and frustrated (Mulkeen, 2010).

Many African countries also suffer extreme shortages of teachers in certain disciplines, which presents additional training challenges. In The Gambia, for instance, 38% of upper primary teachers are qualified to teach social and environmental sciences, but only 17% are qualified to teach math. A secondary school in Mulkeen’s case study reported one applicant for a math job, but 30 for a humanities job in Lesotho. In Zanzibar, 50% of primary teachers are qualified to teach Kiswahili, and 16% to teach math. As a result of these disparities, educators teach subjects for which they are not qualified, and research indicates that student performance suffers (Mulkeen, 2010). Socially, secondary teaching is considered more prestigious, so many teachers aspire to work in or move up to upper levels. More students are enrolled in the lower grades, so there is a greater need for teachers in the lower grades (Bennell, 2004). Finding and training teachers, then, requires governments also train educators based on staffing needs in certain subject areas.

Rugh (2000) notes that finding culturally appropriate teacher training models also presents a challenge – especially since some countries are divided on cultural and linguistic boundaries, but managed by centralized education departments. Local need for teachers is driven in part by the fact that available trained teachers cannot speak the local language. Research suggests that students learn better in their local languages, especially in the early years (Brock-Utne, 2010). In areas where minority languages are spoken, teacher shortages are common, but country dependent. In Liberia, for example, all teaching is done in English, but in Uganda and Malawi, lower primary teaching is done in local languages (Mulkeen, 2010).

Teacher training also varies widely by country. In the case study of eight African countries, training for educators varied from twelve weeks to three years. While all countries had teacher training standards, many unqualified educators still staffed classrooms in Africa. Only 38% of primary school teachers are qualified to teach by national standards in Liberia, for example. Unqualified teachers again illustrate urban-rural divides, as rural schools are staffed with a larger percentage of these teachers. Eighty percent of teachers in primary urban schools are trained in Lesotho, but in rural areas, it is only 52%. In Uganda, 60% of urban teachers had college educations, while only 11% of rural teachers were college educated. Further, in one school district of 3,800 secondary students in Zanzibar had only two qualified math teachers (Mulkeen, 2010).

As a response to a growing need for teachers and lack of trained teachers, schools or districts resort to hiring unqualified or para teachers. Parents often pay these teachers’ salaries (though at 40% to 60% the rate of their trained colleagues) or sometimes they work as volunteers (Sinyolo, 2007). These teachers often have a negative effect on educational quality, and women often staff these positions because they have few other options in the local labor market (Mulkeen, 2010).

### HIV and AIDS

HIV/AIDS is another factor that influences the demand for teachers in Africa (Nilsson, 2003). As noted above, the disease adversely affects much of the continent. The education sector suffers greatly in the face of HIV/AIDS as teachers fall in the age group of those most widely affected by the disease. Teachers with HIV/AIDS are often sick and cannot teach, sometimes for extended periods. Some leave to care for sick family members. Research in Zambia estimated losses of 20 million teacher hours – equal to leaving 498,000 children without education for a year – between 1999 and 2010. The number of primary school teachers who died in 2000 was equivalent to 45% of all teachers educated in the same year. Thirty percent of teachers in Malawi are infected, requiring either drug intervention or the education of a significantly larger number of teachers than projected to fill needs. In the eight case study countries, HIV/AIDS was responsible for .66% – 3% of teacher attrition, and the rate tended to be higher in urban areas. The disease also effects management capacity – in Malawi for example, district education officers had high attrition rates due to dying or leaving to care for others (Mulkeen, 2010).

## Challenges Unique to Female Teachers

Research illustrates that teachers make a significant difference in the student experience, but getting them into the classroom is challenging. In addition to the challenges highlighted in this section, female teachers face unique barriers when trying to enter and stay in the field in Africa. It is important to address female teachers’ unique challenges because they play an important role for girls’ education, so these are reviewed in the next section.

Despite strong evidence that female educators make a difference to a girl’s education, in many countries there are relatively few females in the teaching force. Women make up 62% of the primary teaching force and 53% of the secondary teaching force worldwide. In sub-Saharan Africa, however, women make up 46% and 26% the primary and secondary teaching forces respectively (UIS, 2010). The enrollment, retention, and quality barriers girls face in receiving an education affect the supply of female teachers, so fewer women are available to be teachers (Nwaobi, 2007). Women teachers make the largest impact in areas where girls face the largest cultural barriers. But these are also the areas with the lowest numbers of girls in school. Low female enrollment means low numbers of educated females who can be teachers, so those areas that need female teachers the most have the fewest available (Herz & Sperling, 2004; Lloyd, Mete, & Grant, 2007; UIS, 2010).

Table 1 provides data for African countries on the percent of women primary school teacher and net enrollment rates for girls and boys. It illustrates that the percent of women teachers ranges from 12% in Liberia to 82% in the Seychelles. There are 28 countries where women make up less than half the teaching force. Statistical analysis of the percent of female teachers and girls’ enrollment rate results in a correlation coefficient of 0.43, indicating a positive relationship between the two. While simple correlations must be interpreted with caution, examining Table 1 shows a relationship between female teachers and female students. With few exceptions (Togo and Benin, for example), the countries with the lowest proportion of



female teachers also have the lowest net enrollment rates for girls. Low net enrollment rates for girls also means that few girls are available to be teachers because they do not complete schooling. As the numbers of female teachers rises above 50%, the net enrollment rate also grows. With the exception of Congo and Sudan, countries with teaching forces comprised of over 50% female teachers at the primary level have on average the highest net enrollment rates for girls. The table indicates that when there are few girls in school, there are also few women available to teach and vice-versa, as the research discussed earlier suggests.

Table 2 provides similar data for secondary schooling. Gender discrimination is even greater at this level, with generally lower proportions of female teachers, ranging from 4% in Liberia to 64% in Lesotho. Again, countries with higher net enrollment ratios for girls generally have higher proportions of women teachers (although there are a number of exceptions). Statistical analysis indicates a correlation coefficient of 0.78 between the percent of female secondary teacher and girls’ net enrollment ratio.

 Many women are unable or unwilling to work in the areas where there is greatest shortage. Patriarchal family relations make it very difficult for women to relocate to rural or disadvantaged areas. In some cases, qualified female teachers are available, but they refuse to move because of the lower quality of life in rural or poor areas (Mulkeen, 2010). On the local level, this seriously affects the number of female teachers in the classroom. In Uganda, for example, females comprise 57% of teachers, but only 15% in rural areas. Conversely, in Lesotho teachers are recruited locally, and this country has the highest proportion of female teachers in rural areas in Africa.

 Staffing is only part of the picture. Gender parity in teaching does not lead to gender equality. Just having female teachers in schools is never a complete answer. Females can enforce gender stereotypes if they do not receive gender sensitivity training (UIS, 2010). Nsubuga (2006) also notes that teachers are not trained to address gender inequalities in school and society, and he calls for gender sensitization training. Research from Brazil indicates these programs can have positive effects. Schools that focused on girl centered education models and sensitivity saw girls’ enrollment triple and boys’ enrollment double (Rugh, 2000).

### Working Conditions for Female Teachers

Gender inequalities affect women in the education sector in different ways. Poor working conditions adversely affect female teachers. Deeply ingrained gender biases leads to labor divisions and behaviors at the school level that favor men. Female secondary teachers in a study in Uganda reported that they were expected to teach more classes per week, were expected to take on more tasks outside the classroom, and earned less because they had fewer opportunities to earn extra money outside the classroom than their male counterparts at the same school (Molyneaux, 2011). Female teachers are often assigned to lower primary grades. The lowest grades often have extremely large class sizes so the burden of teaching large numbers of young students falls almost exclusively to women (Bennell, 2004; Shriberg, 2007).[[14]](#footnote-14) In Botswana and Ghana, male students were more likely to challenge the authority of their female teachers and refused their punishments, behaviors they did not exhibit with their male teachers (Dunne, 2007).

A qualitative study in Botswana and Ghana (Dunne, 2007) reported that female head teachers consistently had to fight for legitimacy in the eyes of male teachers. They often had to deal with men who refused to honor their authority. Female teachers reported being overlooked for promotion, and researchers observed teachers performing traditional gendered roles (males in charge of sports, women of cooking). The study concluded that schools are extremely gendered places – everything from behaviors to space to policy implementation. Educators rarely, if ever, were aware of the gender dynamics in their schools. While urban areas in Botswana and Ghana have large numbers of female teachers, these teachers are subjected to serious gender discrimination.

Also, males fill a vast majority of administrative positions, so supervision becomes a very gendered activity. The women in the study from Ghana and Botswana reported being overlooked for promotions due to family responsibilities, and male administrators used negative words to describe female teachers (such as laziness) that prevented their promotion (Dunne, 2007). Even when women assume leadership roles, gender can still work against them. In South Africa, for instance, female secondary department heads stated that male teachers often disregarded their authority, deferring to male supervisors instead. Supervisory councils – created under a new national policy – were intended to give voice to all stakeholders at the school level, but the committee (dominated by males) stated that the most powerful male member should be given authority to make all of the decisions and females were virtually voiceless in the decision process (Diko, 2007). Teachers in Liberia also reported that all members of the education community – including parents, other teachers, and administrators paid female teachers less respect (Shriberg, 2007).

Shriberg’s (2007, 2008) research in Liberia adds an additional gender dimension to women’s school experiences. She found that sexual violence against and exploitation of female students and teachers was common in schools. Administrators were reluctant to discipline perpetrators because they feared those teachers would leave, and finding a replacement was exceedingly difficult due to teacher shortages and long bureaucratic processes that burden school hiring and firing processes. Therefore, these administrators were – in essence – institutionally supporting violence against girls and women. Sexual exploitation also applied to teacher-administrator relationships. Female teachers were often coerced into having sex with principals in order to keep their jobs (in part, because reassignment after losing one’s position is a lengthy process that many female teachers could not afford).

### Female Teachers and Salary

Research indicates that remuneration is also a gendered activity. Ninety-two percent of the teachers in Shriberg’s (2007) Liberia study reported that low pay affected their teaching in negative ways. Upon further investigation, she discovered that male teachers and administrators not only coerced students into paying bribes, but also forced girls to “pay” for higher grades with sex. Male teachers cited low public perception of teaching as the driving factor behind their desire to have sex with their female students – that having many “girlfriends” was a necessary benefit to their profession. Research from Uganda (Molyneaux, 2011) also indicates that men have greater opportunities to benefit from moonlighting because they assume few domestic responsibilities at home, and because they tend to dominate subjects where there are the greatest shortages of teachers (such as science and math) – allowing them greater opportunities to tutor or seek out extra work at other schools. While administrators encouraged moonlighting to attract teachers, female teachers were not able to take advantage of these activities at the same rate as male teachers.

### Sex Segregation and Over-Feminization

Many African nations have strong policies that protect female teachers, but in practice gender laws have not been fully implemented. Diko (2007) notes that the South African post-apartheid constitution explicitly states there must gender equity in education and features the strongest policies to promote gender equality in Africa. In practice, however, few women hold top administrative positions, many women hold more “feminine” administrative positions, females are pushed out of roles considered masculine, and educators actively perpetuate gendered roles in the workplace – such as typecasting males as decision-makers (Diko, 2007). The effects of these gendered roles are described in sex segregation research.

Sex segregation in the workplace, according to Padavic and Reskin (2002) “refers to the different distributions of men and women across different occupations, jobs, and places of work” (p. 57). When segregated, women and men may do the same tasks in different settings (assigning women bank managers to suburban banks and men to urban branches, for example) or do different jobs in the same setting (women working as dental hygienists alongside male dentists). As a result, women’s earnings are lower relative to men’s (in the above example suburban bank managers and dental hygienists get paid far less because they are working in “women’s jobs”), and women are prevented from learning the skills necessary to move into higher paying jobs or out of traditionally female jobs (Padavic & Reskin, 2002). Sex segregation also applies to education. Urban schools and countries with few occupational opportunities overall often have men over-represented in the teaching profession (Strober, 1984).

 On the other hand, placing women in teaching positions also runs the risk of over-feminizing the profession. UIS (2010) maintains:

In general, as the prestige of an occupation declines, the proportion of female workers tends to increase. This in turn often corresponds to lower levels of remuneration. Primary teachers’ salaries in Central and West African countries, where the teaching profession often carries status – and is thus predominantly male – are substantially higher than the salaries paid in Southern and Eastern African countries where women dominate. Reasons for this are historical and cultural. Traditionally, in the latter group of countries, education was the responsibility of missionaries whereas in Central and West Africa, teachers were part of a well-paid civil service (p. 62).

This document further notes that in countries where teachers earn more, the proportion of female teachers is lower. As student enrollment has gone up (especially with UPE), teacher salaries have gone down. When a profession is feminized, women replace men as the majority, and the jobs in that profession pay less and are perceived as less desirable (Padavic & Reskin, 2002).

Apple (1986) explores the consequences of feminization of the teaching profession. He argues that all jobs start as male, but are transformed to female jobs as men transition out of certain lines of work. As jobs are feminized, the state attempts to control how those jobs are done, or they become “de-skilled” and “de-powered.” Once a job is feminized and becomes “women’s work,” it is no longer the same job, and it is considered inferior because women are over-represented in the profession. In jobs that are perceived as women’s work, females experience two kinds of discrimination: vertical and horizontal. Vertical discrimination means that women are disadvantaged relative to men in pay and working conditions, while horizontal discrimination leads to women being concentrated in particular types of work. Women, he argues, are over-represented in less-skilled, lower status, lower paid jobs while men are over-represented in high skills managerial jobs. Teaching has been transformed to women’s work in many parts of the world.

Apple (1986) uses the United States and England as examples of over-feminization in teaching. Education was traditionally a male profession in both countries, but men transitioned out of teaching because the opportunity costs became too high as education became more formalized and required a credential, the school day grew longer, and alternative, better-paying employment became available. The benefits of being a teacher, therefore, did not outweigh the costs of having to receive training for a teaching credential, devote one’s time exclusively to teaching, be in the classroom all day, and forgo new, better paying alternatives. Women assumed jobs as teachers because they had few other options and the profession slowly became feminized. The state assumed more control over the education system, and created principal and superintendent positions and school boards, which were non-teaching supervisory jobs assumed by men and intended to ensure women performed the duties of the state. Further, the state created standardized curricula and later required testing to take control away from a teaching force that was then dominated by women. Every aspect of the decision making process was taken from teachers, and they were instead required to deliver pre-packaged curricula and regulations (developed predominantly by men).

Over-feminization is particularly challenging in Africa because different countries have different needs. In some countries women are far over-represented in primary schools, are poorly paid, and the profession is viewed as a last resort (Lesotho and Zanzibar, for example). In others, males dominate teaching (Liberia is one example). The variety of challenges adds another layer of complexity regarding the recruitment and retention of female teachers in Africa (Mulkeen, 2010).

## Addressing the Challenges of Teacher Recruitment and Retention Through Policy

In order to address the challenges of recruiting, training, and retaining women teachers in Africa, policy changes are needed. Policy research and implementation should be approached with caution. Creating policies that attract, retain, and motivate teachers to perform to the best of their abilities is difficult. The World Bank (Vargas, Loeb, Romaguera, Paglayan, & Goldstein, 2010) recommends ten major areas of consideration regarding teacher policy in a recent draft report entitled “Teacher Policies that Work.” Investigating how effective policies can affect teacher quality and student outcomes, the report suggests considering requirements to enter and stay in the profession, teacher preparation (such as entrance requirements and level of education required), entities responsible for recruitment and employment, workload and degree of autonomy, professional development, compensation, who determines retirement rules and benefits, monitoring and evaluation of quality (including criteria used), teacher representation and unions, and the recruitment and employment of school leadership.

In this report, the World Bank (Vargas et al., 2010) makes several suggestions to ensure greater teacher effectiveness. The authors recommend: Setting clear expectations for teachers, attracting the best students into teaching, preparing teachers with useful training, matching teacher skills with student needs, strong leadership, monitoring teaching and learning, supporting teachers with instruction, and motivating teachers to perform. While these areas of consideration offer some basis for conceptualizing policy considerations specific to teachers, the Bank report does not consider either barriers to the teaching profession or gender.[[15]](#footnote-15)

When considering policies specific to Africa, Nsubuga (2006) argues for a “greater policy dialogue” at local and national levels to address educational challenges unique to the continent and its individual nations. While many policies are in place to address student enrollment and access, now the policy focus needs to move to retention, quality, and gender equity – and teachers need to become the center of the policy dialogue.

Unions also have a unique role to play in policy formulation and implementation (Sinyolo, 2007). Teacher unions are typically involved in later stages of policy development, and their involvement is not institutionalized. In some countries – The Gambia, Kenya, and Uganda, for example – law protects union involvement in the policy process. In these countries, unions report gaining a high level of respect from government officials as well as in significant involvement policy changes. Sinyolo recommends that, “The unions should ensure that they maintain a balance between their trade union and their professional roles. This means that they should strike a balance between fighting for improvement of salaries and working conditions of educators and their role of defending the quality of the teaching profession and the education system” (p. 71). Unions rarely, however, take up gender issues. Since they play a crucial role in policy development, it is important to encourage unions to add a gender dimension to their policy work.

 Teachers, unions, and other stakeholders have a meaningful role to play in shaping and implementing teacher recruitment and retention policies. The next section outlines specific policy recommendations as well as examples of policy-based programs that have worked in Africa or elsewhere, paying special attention to how policies can address gender inequality and increase the number of female teachers. We recognize that there are a great variety of circumstances between and within African nations so the recommendations below need to be examined in context and serve as a starting point for policy dialogue among stakeholders.

### Strengthening the Pipeline

Increasing the access and quality of girls' education is perhaps the most important factor in increasing the quantity and quality of women teachers. That is, perhaps the greatest barrier faced is that in many countries there are so few girls who complete secondary education and therefore the pool for potential teachers is a small one. Therefore, the array of considerations discussed earlier to increase access to and quality of girls' education is essential to expanding the number of women teachers. Such considerations include the cultural, social, economic, and institutional barriers that keep girls from starting and completing their educations.

### Alternative Teacher Training

Interim or alternative training programs are one way to meet the growing needs for the teacher profession and to get more women into the system. These programs have had some success elsewhere. In Bangladesh, the Mobile Teacher Training Programs (MTTP) provides in-service support to women who did not meet minimum teacher education qualifications in order to raise the number of female teachers. Women in this program entered the teaching force immediately, and increased girls’ enrollment numbers. Teachers later had to be qualified to government standards, but they were placed in the highest need areas immediately first (Rugh, 2000).

Alternative in-service or upgrading options tend to be popular and effective in Africa as well. In-service training also helps motivation and quality, but in the eight case study countries highlighted by Mulkeen (2010), the programs were often poorly executed. One promising program came out of The Gambia, however, where the government tested an alternative teacher-training program. The quality varied country-wide, but in those areas where the trainees were well-educated school leavers (those students who performed well in school but poorly on exams so they had to leave school), the program worked well, providing high quality teachers to needy schools – and a majority of the participants were women.

Alternative training programs should be approached with caution. In Lesotho and Tanzania, alternative training programs (which includes in-service training for underqualified teachers) includes only two to four weeks of instruction, placement in a school, and follow-up trianing through distance education. These program leave teachers feeling ill-equipped to be teachers (Sinyolo, 2007). Alternative programs should only be used if they include mechanisms that allow teachers to become well trained and provide them the opportunity to be successful and high quality, well paid educators. From a gender perspective, women tend to be called on to assume volunteer teaching tasks – sometimes as an extension of their domestic chores or because of limited employment elsewhere (see for example, research from Equitorial Guinea (Ginsberg & Sanyal, 2011)), and men assume paid teaching roles. If alternative training is used, special attention should be paid to training women – especially if they are already performing teaching responsibilities voluntarily.

In his policy recommendations aimed at teachers’ unions, Sinyolo (2007) notes that unions do not recruit unqualified, para, or volunteer teachers to become members. He supports the practice of excluding underqualified teachers, but maintains that unions have a responsibility to fight for government in-service training and certification of unqualified teachers already working in schools. He notes that failure to do so, “may lead to the emergence of new unions catering for the interests of these teachers. Such a move would divide or further divide and weaken the teacher trade union movement” (p. 69). Since a majority of these teachers are women (Mulkeen, 2010), in-service or alternative training may staff teaching positions with more female teachers, but these programs should be considered short term or temporary. Alternative training should not be seen as a long term substitute for well-done, comprehensive pre-service training in traditional colleges and universities. Well-educated teachers are essential to quality education.

### Decentralized Staffing

Local education staff know their needs best, so local hiring systems for teachers are preferable to meet staffing needs. In Lesotho, the government grants individual schools a teaching position then a local school committee of various stakeholders fills the post. This decentralized system shows promise. Lesotho reports some of the lowest student-teacher ratios (even in rural schools) and has one of the highest proportions of female teachers in rural areas. In Zambia, teaching positions are advertised on the radio and in the newspaper. Teachers apply directly to the districts where they wish to teach. As a result, many teachers apply to work in their local districts. Districts that allow teachers some level of choice in where they would like to work report lower rates of teacher absenteeism (Mulkeen, 2010). Local hiring should not be used as a way to get around teacher unions as it sometimes has.

### Incentives

Researchers have long suggested offering higher salaries to work in rural or undesirable areas (Rugh, 2000). Recent research suggests this may work. In The Gambia, a salary bonus of 40% for teachers who taught at target hardship schools led to experienced teachers requesting postings in those areas – as high as one-third of teachers in certain regions. The program was successful because it targeted the highest need schools. Uganda also offers 30% hardship pay (Mulkeen, 2010). Bennell (2004), however, also asserts that policy makers must take a more holistic, psychological approach in addition to simply raising salaries. Paying teachers sufficiently so they are assured that they can meet their basic needs (food and shelter) fosters a higher order of thinking regarding their occupations. This leads to a psychological shift in their perceptions of the value of the teaching profession as a whole, thereby allowing a stronger societal shift where teaching is considered a more prestigious profession overall.

In order to staff rural or remote schools, especially with female teachers, safety concerns must be considered. Female teachers who move to new communities need safe housing, bathrooms, and transportation options to ensure they can live and travel to schools safely. Lloyd, Mete and Grant (2007) assert that addressing safety concerns must be a major consideration in all schools when increasing the number of female teachers. Herz and Sperling (2004) also agree that a girl-friendly school is one where the teachers – especially female – can live in a community and feel safe. Mulkeen (2010) found that the countries in her case study that offered a housing incentive, particularly in poor and rural areas, tended to have better luck attracting teachers. In addition to providing safe places to live, one school district in Zambia offered the additional incentive of a special loan for female teachers to buy solar panels to supply electricity to their homes if they taught in remote schools.

### Empowerment

Much like getting girls into school, recruiting females to fill vacancies does not completely address the real problem. Females also need to be attracted to the profession. One way to do so is to create school environments where women are empowered members of their teaching and learning communities by becoming involved in major decision making processes and assuming leadership positions. Diko (2007) states, “It is vital… that women’s continued oppression in education be exposed with a view to dismantling male privilege, ending the tension between policy and practice, and bringing about meaningful social change” (p. 108). Further, in a Forum for African Women Educationalists (FAWE) best practices report, Nsubuga (2006) notes:

It should be… pointed out that statistical parity indicators viewed in isolation could be misleading. A focus on quantitative balances may fail to reveal the processes that lead to such strides as well as the qualitative changes that would be needed if gender parity is to subsequently lead to the attainment of EFA’s ultimate goal of gender equality. The gender gap persists and major improvements are required particularly in terms of the quality of education offered (p. 4).

These quotes identify three key elements of empowerment: (1) addressing equity in education is essential if more women are to enter the teaching force; (2) more qualitative measures are required to paint a clearer picture on the ground to address challenges to gender equality in education; and (3) the disconnect between policy and practice must be addressed. Qualitative research can play a role in teasing out major cultural and social barriers to equity between men and women in school settings. Policies may address those barriers, but effective policy implementation relies on educating all stakeholders in the educational community. They must understand the importance of these policies, but also be educated on the socio-cultural factors – such as male privilege – that act as barriers and take a stake in breaking down those barriers.

Regarding empowerment, Stacki (1995) also argues, “Yet too often teachers have been silent recipients – not included in policy-making efforts, in governance and management decisions, in day-to-day instructional strategies and decision-making” (p. 14). This is supported by research conducted in thirteen African countries where teachers argued that policies were “handed down” to them to implement without their input (Asimeng-Boahene, 2003), and in Liberia where teachers felt that a required new human rights curriculum – implemented by the government and donor agencies – was culturally out of context and felt forced on them (Shriberg, 2007). To address this, Stacki (1995) asserts that teachers need to be empowered through education. Teacher education programs can play a key role in giving teachers voice. In her work in India and Pakistan, a small community based NGO introduced initiatives aimed at empowering teachers by teaching them strategies to assist in the decision making process about recent reform efforts. Stacki’s research found that this training led to greater teacher involvement, higher educator retention, and more participatory and gender sensitive teaching techniques.

In countries where females are under-represented in the teaching force, it is important to recruit and train women at all levels. This may prevent vertical and horizontal discrimination, and help to ensure that the teaching profession does not become over-feminized – or de-skilled and de-powered (Apple, 1986). In countries where women are over-represented in education, they need to be trained to assume leadership positions at the school level and higher, and at all levels in nations where they are under-represented. This is important because true empowerment means involvement in the decision making process at all levels, including areas such as curriculum development and policy-making.

### Gender Sensitivity

Gender sensitive training is another suggested practice to facilitate a school environment more welcoming to females and thus to the increase in the pool of potential school teachers. The establishment of gender focused “best practices” schools in five countries by FAWE saw real results in recruiting girls for schools, retaining them, and providing them quality educational experiences (Nsubuga, 2006). In addition to practices at the student level like sex education, activities that promoted girls in subjects in which they are under-represented (like math and science), scholarships for girls, and gender responsive infrastructure (such as boarding opportunities in communities where the school is far and separate toilets), the staff introduced several pedagogical methods. For example, teachers and other stakeholders – including all students – received gender sensitivity training, and teachers received in-service training on gender responsive pedagogy. These schools also trained school managers on gender responsiveness. FAWE reports their teachers in these schools are more responsive to gender issues in school processes, and that girls in the schools reported receiving more support from their teachers. Training in gender responsive teaching methodologies has increased girls’ participation in class, led girls to interact more with their teachers, and improved girls’ academic performance.

 Gender sensitivity should reach beyond the school level. Policies targeted at creating a gender sensitive educational environment are also important. In her research on policies in Malawi, Tanzania, and Zimbabwe, Swainson (2000) highlights examples of policies in each country specifically focused on gender. She argues that many of these policies are ignored or poorly implemented because girls’ education is shallowly recognized from a purely economic standpoint – a good return on an educational investment. She notes current policies targeted at gender do so superficially or simply tack them on to existing programs. She argues that in order for ministries of education to achieve their parity and equity goals, gender must infuse all policy-making decisions. She recommends a gender officer (or other gender advocate) at the ministry level in order to bring gender into everyday policy debates. More importantly, however, she suggests re-conceptualizing education of females at all levels as a right – as opposed to an investment – in order to come to meaningful gender-based policy decisions.

## Discussion

This report addresses several dimensions of increasing the female teachers in primary schools worldwide. Namely, it explores the barriers girls face to getting and education as a foundation for understanding what prevents them from completing an education and later becoming a teacher. It also addresses the social, economic, and cultural barriers women face in becoming teachers. This review also explores the effects of female teachers – both to address how they may mitigate the barriers to girls’ education and to illustrate why it is important to recruit them. Finally, it proposes policy recommendations in order to get women into the teaching force.

### Limitations

While it attempts to paint a comprehensive picture of the various components of recruiting more women to be teachers, this literature review has some limitations. Research on the effects of female teachers, especially in developing countries, is limited. Very few studies focus exclusively on the effects of female teachers on a girl’s education – most of the literature considers the effects of a teacher’s gender on student achievement and experience as only one component of larger studies. Further, most research to date comes from developed countries and uses standardized test scores almost exclusively to measure the effects of teachers on their students. Literature that focuses on the teacher experience is also lacking, especially in developing countries. Few studies examine the experience of teachers on the ground or on the barriers individuals encounter when attempting to enter and stay in the teaching profession. A major limitation, however, is research that presents a gender perspective on all of these aspects of teachers and their profession.

### Suggestions for Future Research

 Qualitative research yields rich narratives that illustrate various dimensions of the teaching and learning process. Recent studies have used these methods to gain valuable insights on how gender, culture, and institutions come together and either enable or prevent women from becoming teachers, having positive experiences at schools, and staying in the profession (see, for example, Diko (2007); Dunne (2007); and Molyneaux (2011)), and researchers have called for more qualitative measures of teacher quality and the teacher experience (Asimeng-Boahene, 2003; Shriberg, 2008). Qualitative studies that do not treat gender as a variable, that measure student achievement using more than standardized test scores, and that paints a comprehensive picture of girls’ educational experiences is called for. Quantitative research is also valuable. Continued investigation into the effects of female teachers (especially in developing countries) and on barriers to the profession for women would be useful contributions to literature. Regardless of methodology, research must address how to overcome the cultural, social, economic, and institutional constraints that affect how women are perceived and treated in educational settings. If these constraints are addressed, females will not only enter the teaching force, but they will stay. They will receive meaningful, relevant tasks at school, participate in decision-making processes, be satisfied with their work, feel safe, experience fair treatment, and be proud of their profession.

### Conclusion

Researchers recognize that teachers play a vital role in achieving educational development goals worldwide. Sinyolo (2007) summarizes it well when he acknowledges, “The achievement of Education for All targets and education-related Millennium Development Goals depends, to a very large extent, on the availability of properly trained and qualified teachers. The educational quality imperative cannot be met without quality teachers” (p. 16). What is not always emphasized and well understood, however, is the role of teachers in girls’ education.

The importance of teachers to a girl’s education cannot be overstated. The economic, social, and health benefits of educating girls are widely recognized and considered a priority in the international development community as well as by nation-states. Females still face substantive barriers when attempting to receive an education, despite expansive efforts by governments, non-governmental agencies, and international development agencies. Teachers play an important role in mitigating many of the social, cultural, and economic barriers that prevent girls from having a safe and meaningful educational experience. As this literature review illustrates, female teachers are particularly important for retaining girls, raising their achievement levels, and providing them a quality education. Ministries of education face many challenges when attempting to staff teaching positions with women, but many of those challenges can be addressed through effective policies and strong financial investment. Increasing the number of female teachers in developing countries – particularly in countries where girls are culturally undervalued and under-represented in the education system – is therefore a key component to reaching educational enrollment, retention, and achievement goals for girls worldwide.

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1. In1948, the United Nations adopted the Universal Declaration of Human Rights, which included a provision for the right to education and parental choice in a child’s education. The document was not, however, translated into a treaty because eight member countries abstained from voting – mostly due to political reasons stemming from the Cold War. While this declaration was groundbreaking at the time as the first multi-national recognition of the importance of human rights, unlike the children’s rights convention, it was not legally binding (Tomasevski, 2003). Of the UN’s 192 member states, all of them have ratified the convention except the United States and Sudan (Gainborough & Lean, 2008). [↑](#footnote-ref-1)
2. Originally gender parity was supposed to be achieved in 2000. However, the Dakar meeting revised the fifth EFA goal is to eliminate gender disparities in primary and secondary education by 2005, and achieve gender equality in all sectors of education by 2015 (World Bank, 2009). It should be noted that gender parity goals were not met in 2005, and still remain unfulfilled. [↑](#footnote-ref-2)
3. Conversely, comparable educational opportunities for boys centered on skills intended to shape boys into civil servants (Choti, 2009). [↑](#footnote-ref-3)
4. These forms include: beatings, punitive labor, withholding food, sexual assault/rape, neglect, verbal abuse, enforced isolation, social ostracization, and denying access to education. [↑](#footnote-ref-4)
5. Heyneman and Loxley (1983) measured quality using a wide range of variables – many of which varied by country – including considerations like teacher salary, teachers’ levels of education and years of experience, numbers of textbooks, availability of a library and numbers of visits to the library per week, education levels of the teachers’ parents, hours spent on homework, hours spent teaching various subjects, and numbers of dictionaries. [↑](#footnote-ref-5)
6. The researchers used father’s education, mother’s education, father’s occupation, number of books in the home, presence of a phonograph, sex of the student, and age of the student to measure out of school influences (Heyneman and Loxley, 1983). [↑](#footnote-ref-6)
7. Heyneman and Loxley’s (1983) quality and achievement data originated from six different survey instruments, four of which were developed and used only in one country, while Baker et al (2002), used only one achievement measure and the same teacher and school quality instrument for every country in their study. [↑](#footnote-ref-7)
8. A composite of 11 “shortage” (Baker et al, 2002, p. 299) variables, including measures such as numbers of computers and budget for supplies. [↑](#footnote-ref-8)
9. Measured with four variables: percentage of teachers at the school for longer than five years, number of hours administrators spent discussing school issues with teachers, percentage of students absent daily, and completion rates. [↑](#footnote-ref-9)
10. Using mother’s and father’s level of education and number of books in the home as indicators. [↑](#footnote-ref-10)
11. Identified as institutions where teachers found math important for girls, teachers did not allow harassment of girls, and students experienced higher quality interactions with teachers. [↑](#footnote-ref-11)
12. This region reports the highest student-teacher ratio in the world, followed by South and West Asia (39 to 1), Latin America and the Caribbean (23 to 1), Arab States (22 to 1), East Asia and the Pacific (19 to 1), Central and Eastern Europe (18 to 1), Central Asia (17 to 1), and North America and Western Europe (14 to 1). Worldwide, the average student-teacher ratio is 25 to 1 – nearly half the number of students as reported in classrooms in sub-Saharan Africa (UIS, 2010). [↑](#footnote-ref-12)
13. The authors, however, maintain that teacher experience has a greater effect, and that the effects on class size diminish as students progress through school (Rivkin, Hanushek, & Kain, 2005). [↑](#footnote-ref-13)
14. This happens either because administrators assume that women are more nurturing and better suited to the work (Shirberg, 2007) or because social perceptions assign lower status to teaching early primary grades and therefore assign women to those roles (Bennell, 2004) – both sexist assumptions. In some countries, secondary teachers are paid more, attracting more men to the upper grades and pushing women out (Shriberg, 2008). [↑](#footnote-ref-14)
15. Bank policy has not been friendly to teachers generally. It has been very critical of teacher unions and oriented toward surveillance and control of teachers. [↑](#footnote-ref-15)