

TEACHER ATTRITION CATASTROPHE IN SUB-SAHARAN AFRICA: A HURDLE IN THE ACHIEVEMENT OF UPE, EFA POLICY GOALS AND MDGs

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ABSTRACT

Ensuring that all students have access to a qualified teacher is a universal struggle. In sub-Saharan Africa, teacher attrition has become a subject of regional concern and schools are facing an alarming phenomenon. The UNESCO Institute for Statistics (UIS) indicates that teachers are leaving schools at a shocking rate. In this paper, we argue that teacher attrition, as a subsystem, has negative implications on the quality of teaching and schooling; and that it is also a hurdle in the achievement of Universal Primary Education (UPE) and Education For All (EFA) policy goals and Millennium Development Goals (MDGs). Drawing on the UNESCO Institute for Statistics, literature on attrition and Kurt Lewin's open systems theory, this paper will (1) explore the emerging global trends and challenges in teacher attrition; (2) critically analyse the trends and challenges in teacher attrition; (3) investigate why teachers leave; (4) reflect on how teacher attrition impacts on the quality of teaching and learning; and (5) argue that teacher attrition is a hurdle in the achievement of UPE, MDGs and EFA policy goals.

KEYWORDS: Teacher attrition, systems theory, teacher retention and attraction policy, UPE, MDGs and EFA

INTRODUCTION

Internationally, it is widely recognised that teachers are central to student success. To a larger extent, they play an important role in transmitting cultural and social values, such as tolerance, dialogue and gender equality etc (UNESCO 2011b). In addition, they are at the centre of the debate on education quality and students' learning outcomes. Yet many of them are leaving their schools and the profession every year, particularly in poorer, lower-performing schools (Issue Brief 2008). Education systems, more specifically in sub-Saharan Africa, should not be seen as separate systems, but as interrelated subsystems of the whole system (regional block). As interrelated subsystems these national systems (governments) have, over the last decade, adopted and committed to a number of internationally agreed development goals, including the Millennium Development Goals (MDGs). The participants endorsed an "expanded vision of learning" and pledged to universalise primary education and massively reduce illiteracy by the end of the decade; they also affirmed their commitment to achieving universal education. However, sub-Saharan Africa, as an open system, is facing a significant number of hurdles in the implementation of these global policies. Among others, these education systems are characterised by high teacher

attrition and global policy challenges. In the regional block, teacher attrition is inevitable. Some teachers retire, others leave for personal reasons (e.g. to care for family or children), and a relatively small number are dismissed from their jobs and encouraged to leave the profession. But nearly half of all teachers who enter the field leave it within a mere five years and the best and brightest teachers are often the first to leave (Issue Brief 2005).

Teacher attrition is not a myth and has been an ongoing global concern for years - its plethora of literature (Mark and Anderson 1978; Murnane 1981; Charters 1970; Boe et al 1995; Quartz et al 2005; Trends in Education Macro Indicators Report 2009; Reviews of National Policies for Education South Africa 2008) suggests that working conditions, including professional teaching conditions, play a substantial role in decisions to leave teaching in a particular school or district, and they contribute to decisions to leave the profession altogether. However, the UNESCO Institute for Statistics (UIS) and a significant amount of research has shown, over a long period, that the high levels of teacher attrition experienced by many countries have serious implications for the future of the teaching profession. Among others, the implications of teacher attrition are far-reaching financially - for schools and the taxpayer. According to Darling-Hammond (1998), teacher attrition is at 30% within the first three to five years of entering the profession.

It is widely contended that the countries of the world are committed to reaching the goal of Universal Primary Education (UPE) by 2015. In order to achieve this, they need to ensure that sufficient school places are provided, enough teachers for quality instruction are employed and school systems function effectively. Many of the countries that are challenged to reach UPE are also facing population growth, which further increases the pressure to expand school systems and the force of the teaching profession (UNESCO 2011a, 2011b). The New Partnership for African Development (NEPAD) claims that Africa continues to face significant challenges in the area of education. Among these challenges are: low enrolments and high drop-out rates in primary and secondary schools, gender disparity, poor early childhood care and education, shortages of textbooks and other learning materials, poor educational infrastructure and environments, and weak higher education systems. In addition to all this, the unfortunate reality at present is that teacher attrition is influencing the quality of teaching and schooling and the implementation of global policies in the region. The acute shortage of qualified teachers represents

one of the biggest hurdles to reaching global policy goals, such as New Partnership for Africa's Development (NEPAD), Universal Primary Education (UPE), Education For All (EFA) and Millennium Development Goals (MDGs). These policies are inextricably linked and have similar goals and both rely on partnerships at the global and regional levels for their successful implementation. Among other things, these policies aim to achieve universal primary education, reduce child mortality, improve maternal health and combat communicable diseases; all these goals relate to different aspects of human development that are at the heart of NEPAD. NEPAD is a framework for achieving MDGs in Africa. MDGs and NEPAD are inextricably linked, have similar goals and rely on partnerships at global and regional levels for successful implementation (NEPAD TODAY 2011).

In sub-Saharan Africa, teacher demand and supply have become a matter of regional concern. Unfortunately, however, many of today's teachers, who were employed during the past four decades, are now approaching retirement - as a result, the region faces a significant teacher gap. For this reason, there is a casual relationship between teacher attrition and global policies. The process of teacher attrition and global policy implementation are dialectically interrelated phenomenon. On the one hand, the challenge of teacher attrition, among others, has negative implications on the quality of teaching and schooling. On the other hand, it is also a hurdle in the achievement of UPE and EFA policy goals and MDGs. Teacher attrition, as a subsystem, has negative implications on the quality of teaching and schooling; it is also a hurdle in the achievement of UPE and EFA policy goals and MDGs in sub-Saharan Africa. Drawing on the UNESCO Institute for Statistics (UIS), the literature on attrition and Kurt Lewin's open systems theory, this paper: (1) explores the emerging global trends and challenges in teacher attrition; (2) critically analyses the trends and challenges in teacher attrition; (3) investigates why teachers quit the system; (4) reflects on how teacher attrition harms quality of teaching and learning; and (5) argues that teacher attrition is a hurdle in the achievement of UPE and EFA policy goals and MDGs.

TRENDS AND CHALLENGES IN TEACHER ATTRITION

Teacher attrition has a long history, stretching back to the 1960s; it has certainly been a problem since the 1970s and early 1980s. For example, Charters (1970), Mark and Anderson (1978), and Murnane (1981) observed that 25% of all people with teaching certificates either never begin teaching or leave teaching within only a few years. Murnane made the point that, in the early 1970s, there was a 0.33 probability that a first year teacher would leave whereas, in the late 1960s, the study predicted the leave rate at only a 0.16 probability in the first three years. Another study (Mark and Anderson 1985) suggests that proportions of entering cohorts of teachers decrease over time. According to the Heyns report (on the follow-up to the National Longitudinal Study of 1972, 25.2% of trainees completed teacher training programmes, but never actually entered the teaching profession (either in elementary or secondary schools (Heyns, 1988)).

Research on teacher attrition focuses on a significant number of variables. Some studies (Darling-Hammond & Sclan, 1996; Grissmer & Kirby, 1987) explored the relationship of teacher characteristics to attrition; this has been studied fairly extensively in the last two decades in

general education research, but has received less attention in special education studies. Although some special education researchers have investigated the relationship between attrition and demographic variables (i.e., age, gender, and race), few conclusions can be drawn about teacher characteristics and attrition (Billingsley, 2003). Nonetheless, it is important to note that few studies address the relationship of attrition to academic ability, degrees earned, or the quality of teacher preparation, so few conclusions can be drawn. For example, Singer (as cited by Billingsley, 2003) found that teachers with higher National Teacher Exam scores were twice as likely to leave as those with lower scores. Similarly, Frank and Keith (as cited by Billingsley, 2003) found that special educators who were more academically able (as measured by the Scholastic Aptitude Test) were more likely to leave teaching than those with lower academic performances. Although these measures are not indicators of teaching competence, it is of concern that teachers with higher tested abilities are those who leave the field first. It is probable that the strongest link is between attrition and performance on standardised tests.

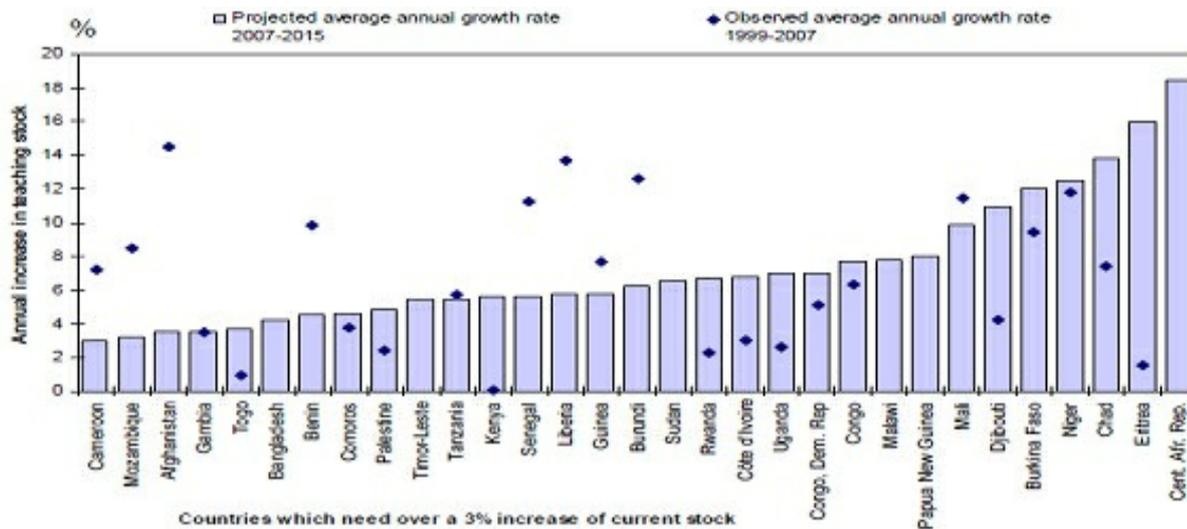
Similarly, Frank and Keith (cited by Billingsley, 2003) found that special educators who were more academically able (as measured by the Scholastic Aptitude Test) were more likely to leave teaching than those with lower academic performances. The 1987-1988 Schools and Staffing Survey and 1988-1989 Teacher Follow-up Survey suggest that the attrition rate for the teaching profession was 5.6% in the public schools and 12.7% in private schools. The rate at which public school teachers left general education changed significantly (Bobbitt et al 1991). According to the data from the same surveys, however, more teachers in special education exited the teaching profession than general education teachers: 7.9% special education and 5.8% of general education teachers left (Boe et al., 1993). Data collected from 1990-1991 Schools and Staffing Survey and the 1992 Teacher Follow-up Survey estimated that 6.3% of teachers in special education and 5.6% of teachers in general education left the profession (these figures refer to public schools) (Boe et al 1995). According to these surveys, data also shows that the rates of attrition are similar to those in the late 1980s: 5.1% of teachers left the public schools and 12.3% of teachers left private schools (US Department of Education, 8/95). In North Carolina, according to the Raleigh, North Carolina News and Observer, more than a third of the state's teachers leave teaching by the end of their fifth year (Boe et al 1995).

Teacher attrition is a global challenge and, by its very nature, is an extremely complex phenomenon. It is frequently positioned as either a problem for workforce planning and resources, or as an indicator of the relatively poor quality of schooling and teacher morale. Although some countries, such as South Korea or Canada may currently be experiencing a teacher surplus, a considerable number are struggling with teacher attrition and shortages in specific areas, especially in science, mathematics, foreign languages and special education (The International Alliance of Leading Institutes (IALEI), 2008:44). Suell and Piotrowski (2007) note that, in the United States, about a third of all teachers leave the profession, half of them within five years. Special education, mathematics and science experience the highest attrition rates - 20% annually in each field. In hard-to-staff schools (e.g. poor urban schools), 22% of teachers are lost annually, while better-off schools

experience a turnover rate of 12,8% (IALEI 2008:44). Quartz et al (2005:491) contend that, although the causes and contours of the problem vary from country to country, the shortage of good teachers is a worldwide concern. Furthermore, policies that address this shortage usually focus on supply-side solutions such as recruitment. Yet there is increasing evidence that getting more teachers into the career pipeline only scratches the surface of a complex

problem. The pipe itself, so to speak, leaks and it does so in ways that further disadvantage poor schools where the shortage is most acute (Quartz et al 2005:491). Figure 1 below illustrates which countries need over 3% increase of current stock. UIS (2011a) notes that most of the countries with severe gaps will fall short of the goal if current trends continue (see Figure 1). It is important to note that some of these countries have clearly made remarkable efforts to

Figure 1: Comparison of projected and past annual growth rates in the expansion of teaching forces



Adapted from UNESCO 2011a

It is disturbing to note that each year thousands of new teachers enter the profession, only to leave it a few years later. Sadly, the lowest literacy rates are observed in sub-Saharan Africa - the adult literacy rate ranges from 26% in Mali to 93% in Equatorial Guinea (UIS 2011c). Although some teachers stay until retirement, others leave earlier for many reasons, including the teaching environment and personal reasons. A considerable volume of attrition research notes that contemporary teacher attrition rates vary between 5% and 30%; this can be attributed to a significant number of variables. To begin with, it should be noted that the causes of teacher attrition vary greatly from one individual teacher to the other. The decision to leave the profession may be influenced by a variety of factors. Among others, these include the following: tension, frustration, anxiety, anger and depression resulting from work, school violence, low salaries, and arduous working

conditions. The lack of qualified teachers obviously threatens the quality of education that students receive. According to the UIS (2011a), in total, the 112 expanding countries will need at least two million more teachers in classrooms by 2015 than in 2009 to provide quality primary education for all. Figure 2 shows that more than one half (55%) of the additional teachers are needed in sub-Saharan Africa (1 115 000). UIS (2011a) asserts that other regions in need of additional teachers include the Arab States (243 000 or 12% of the global demand), South and West Asia (292 000 or 14%) and North America and Western Europe (155 000 or 8%). In addition, Central and Eastern Europe, Central Asia, East Asia and the Pacific, and Latin America and the Caribbean account for less than 11% of the global additional number of primary teachers needed to reach UPE by 2015.

Figure 2: Teacher shortages

Region	All countries		Countries that need to expand				
	Current teacher stock 2007 (in thousands)	Number of countries	Current teacher stock 2007 (in thousands)	Projected teacher stocks required to meet goal by 2015	Difference in teacher stocks (in thousands)	Number of countries with moderate or minor teacher gap	Number of countries with severe teacher gap
Arab States	1,959	20	1,503	1,785	282	11	4
Central and Eastern Europe	1,214	20	399	403	4	7	0
Central Asia	318	9	206	219	13	4	0
East Asia and the Pacific	9,961	29	1,032	1,122	90	10	4
Latin America and the Caribbean	2,905	39	435	450	14	11	0
North America and Western Europe	3,718	24	2,132	2,257	125	7	0
South and West Asia	4,949	9	925	1,165	240	1	2
Sub-Saharan Africa	2,822	45	2,573	3,732	1,159	8	27
World	27,847	195	9,205	11,133	1,928	59	37

Adapted from UNESCO (2011a)

WHY TEACHERS LEAVE?

Teacher attrition is becoming a growing concern and major challenge for education policymakers and researchers globally. Significant research has created a fairly consistent portrait of those who leave teaching - individual characteristics that are tied to macro-level conditions. Content focus seems to matter, although the areas with highest attrition differ from country to country (Quartz et al 2005:492). In the United States, for example, secondary mathematics and science teachers, along with teachers of special and bilingual education, leave at higher rates than those in other fields, while in the UK, English, music, and physical education teachers also appear to leave at higher rates (Quartz et al 2005:492). It is theorised that United States math and science teachers may leave because they have more career options than other teachers and, according to one study, physical education teachers may leave simply due to the physically exhausting nature of their work. Some differences in attrition have also been noted with respect to age and gender (Quartz et al 2005:492).

Because many of today's teachers were hired in the 1960s and 1970s and are now approaching retirement, it has been incorrectly assumed that retirement is the primary reason for the current teacher turnover. But teacher turnover in individual schools includes both teachers who transfer from one school to another within a district (movers) and those who leave the district or the profession entirely (leavers) (Issue Brief 2008). Unlike the low retention rates found in industrialised nations' urban cores, rates of retention are lowest in the rural areas of poor, less developed countries and analysis of the World Education Indicators Program reports that, in participating countries (which include Argentina, Brazil, Chile, Egypt, Indonesia, Malaysia, Peru, Paraguay, the Philippines, Thailand, Tunisia, Uruguay and Zimbabwe), the demand for teachers is increasing, especially in those countries with the lowest levels of economic development (Quartz et al 2005:492).

In a study conducted in South Africa by the Human Sciences Research Council (HSRC) for the Education Labour Relations Council (ELRC) in 2005, it was found that 55% of teachers would leave teaching if they could (Reviews of National Policies for Education South Africa, 2008:299). The reasons cited for this included workload stress, low salaries, lack of discipline in schools and lack of career advancement. In addition, attrition rates seem to be greatest among younger teachers; employment options and pension considerations act as a holding force for many older teachers. The loss of young blood is, of course, a drain on the vitality of the teaching force. According to the Trends in Education Macro Indicators Report (2009:71), South Africa's attrition rate of 5.9% in 2002/2003 is fairly low when compared with that of other countries. Comparatively, the attrition rate of educators in Botswana amounted to 14% in 2001, in Swaziland it was 12% in 2002, and in the United Kingdom it was 15,3% in 2000. International research indicates that teacher attrition rates for various countries range between 5% and 30%.

HOW TEACHER ATTRITION IMPACTS ON THE QUALITY OF TEACHING AND LEARNING

Global policies, teachers' working conditions, quality of teaching and learning, infrastructure, teacher attrition, etc, should be seen as interrelated subsystems of the open

system as a whole - subsystems of the open system work together. Open systems theory is based on the work of Kurt Lewin. Lewin perceives organisations as units that interact with their external environment rather than being closed and independent units. From the stance of open systems theory, sub-Saharan African countries are subsystems of open systems that require exchange processes with their environment for survival. Open systems theory assumes that all large organisations consist of multiple subsystems, each of which receives inputs from other subsystems and turns them into outputs for use by other subsystems - the organisation continuously interacts with its environment. The subsystems are not necessarily represented by departments in an organisation, but might instead resemble patterns of activity. On the other hand, this theory assumes that, like biological organisms, it is possible to analyse any organisation in terms of an open system - a system that can survive only by exchanging materials with its environment.

As subsystems of the open system, teachers are therefore crucial to student success. Furthermore, teachers' working conditions should promote quality teaching and learning. There is a casual relationship between teacher attrition and the quality of teaching and learning. As noted by IALEI (2008:44), levels of teacher attrition have severe implications for the quality of teaching. In addition to all this, a limited supply of teachers increases the need and likelihood for out-of-field teaching, where teachers teach subjects in which they are neither prepared nor qualified to teach. This obviously leads to poor teaching and handicaps students who want to specialise in these subjects. This situation has a detrimental effect on teacher morale and, indeed, is likely to lead to a loss of public confidence in teachers generally. According to Rasmussen (2008), in Denmark, a higher probability of out-of-field teaching is predicted due to teacher shortages in the areas of natural sciences and foreign languages (this may be the result of the way in which teacher preparation is organised in Denmark).

Seen from the perspective of systems theory, an increase in the attrition of teaching staff in sub-Saharan African public schools, which are subsystems of an open system, places the education system at risk of lower teacher quality, greater inequity in student opportunities, and increased inefficiency as more funds are diverted to recruiting and training new teachers. As Paulse (2005) puts it, the high teacher attrition rate influences the quality of education received by students with emotional and behavioural disorders, whose behaviour demands more skilled and reliable support on the part of teachers. An adequate workforce and resource planning for teacher supply requires a deep understanding of teacher attrition. Teacher attrition is characterised by a certain pattern. For example, the International Task Force on Teachers for EFA (2010) suggests that the attrition of secondary teachers is higher than that of primary teachers simply because their higher qualifications lead to greater labour market opportunities. For example, mathematics and science teachers are found to leave at a higher rate than teachers of other subjects because they have more career options than other teachers.

The same Task Force (2010) also claims that there is a high attrition within the ranks of teachers with the highest qualifications. There is also an unusually high attrition rate of teachers without formal qualifications. This suggests that

secondary teachers have more alternative labour market opportunities. Given the complexity of teacher attrition patterns, it is important that data be collected in a systematic and reliable manner for inclusion in policy development on teacher attraction and retention. Teacher attrition has serious financial, organisational, and academic implications. Recruiting and hiring teachers is a time-consuming and expensive process, requiring districts to shift financial and human resources away from other programmes in order to search for and hire new teachers (Quartz et al 2005: 498). The costs of attrition extend from those largely hidden in tuition and tax support for teachers to the funds schools directly invest in induction and professional development efforts. Poor schools' higher turnover rates make the associated costs especially damaging, and add to the long list of challenges already facing these schools.

TEACHER ATTRITION AS A HURDLE IN THE ACHIEVEMENT OF UPE AND EFA POLICY GOALS AND MDGS

The sub-Saharan African countries, as subsystems, are the signatories to the Dakar Framework (open system). As part of the EFA's goals, these subsystems have pledged to improve literacy levels by 50% between 2000 and 2015. If these countries want to build education systems underpinned by Dakar Framework goals, they need to rethink their teacher retention policies and prepare teachers for the long haul; they also need to decide how best to encourage teachers to stay in the classroom. Unfortunately, the challenge of teacher attrition has far-reaching implications for the region and can be described as a policy imperative. It forms part of a complex of teacher policy issues that need to be considered by policymakers: it imposes additional costs on education systems and has a detrimental impact on the quality of schooling. Many of these issues are interconnected and should not be seen as separate subsystems - they have detrimental effects on sub-Saharan Africa's education systems. A quick scan of research on teacher attrition identified the following factors, among others, as causes:

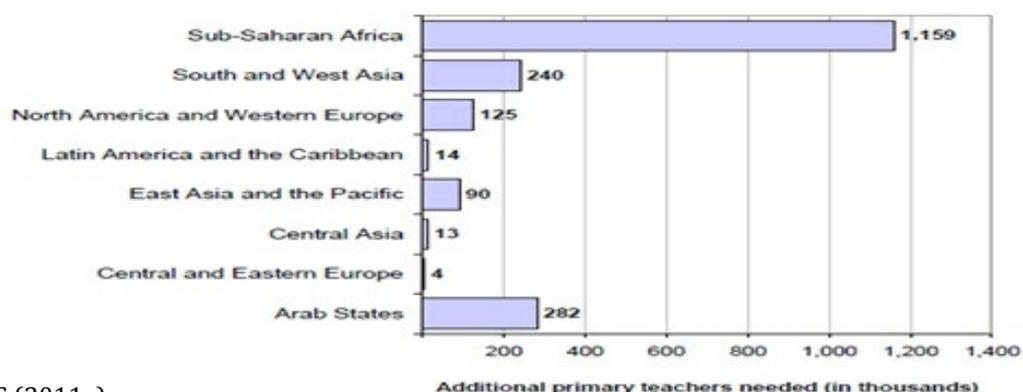
- disintegration of discipline (thus causing unfavourable working conditions);
- lack of teaching facilities - especially in subjects such as science and technology;
- severe overcrowding of schools and classrooms - this

in spite of a generally acceptable national average student-teacher ratio;

- lack of adequate incentives;
- appalling teaching conditions;
- students with HIV and Aids;
- poor parental participation at all levels - lack of school governance and inadequate disciplining of children;
- policy overload, leading to dissatisfaction with time allocation, and making working conditions unbearable through the increase in administrative work; and
- role conflict.

Since 2006, the UIS has been providing projections related to teacher needs in order to assist national and international policymakers in identifying and evaluating the recruitment challenges and budgetary implications associated with achieving the UPE goal by 2015 (UIS 2011b). Apart from this, the feasibility of recruiting additional staff can be assessed by comparing the number of teachers who need to be employed between 2009 and 2015 with the current number of teachers. UIS (2011a) notes that, in total, the 99 countries will need at least 1.9 million more teachers in classrooms by 2015 than in 2008 to provide quality primary education for all. In addition, it suggests that more than half of the additional teachers are needed in sub-Saharan Africa (1 056 000). Other regions in need of additional teachers include the Arab States (281 000), South and West Asia (260,000) and North America and Western Europe (152 000). Sub-Saharan Africa has by far the greatest need for additional teachers (UIS 2011a). Three out of four countries (27 out of 45 countries) in the region face a significant teacher gap. In these 27 countries, 2.6 million teachers were employed in 2007. The number of primary teachers must grow to 3.7 million in the eight years remaining to fulfil the EFA commitment, indicating a gap of 1.2 million. UIS (2011a) suggests that, for every two teachers teaching in 2007, there must be three in 2015. Budgets for teacher salaries will have to grow by 50% relative to levels reported in 2007. According to the UIS, developing countries in sub-Saharan Africa will need to recruit a number of teachers that is equivalent to 76% of its current teaching force within the next years (from 2009 to 2015) (UIS 2011b). These projections are intended to serve as a guide for countries to set realistic goals. Figure 3 illustrates the global patterns of teacher shortage by region and it is depressing to note that sub-Saharan Africa is in the lead. The UIS indicates that, in total, these 96 countries will need at least 1.9 million more teachers in classrooms by 2015 than in 2007 in order to provide quality UPE.

Figure 3: Teacher shortages



Adapted from UIS (2011a)

The UIS (2011a) highlights that all sub-Saharan African countries need to expand their primary teaching workforces, with the exception of Botswana, Madagascar, Mauritius, Sao Tome and Principe, and Seychelles. For the countries listed, the current teaching staff and recruiting strategies are sufficient to cover staffing needs for primary education until 2015. For every school year starting between 2009 and 2015, an average of 350 000 teachers should be hired in sub-Saharan Africa to fill additional posts and compensate for teachers leaving the primary teaching workforce. The total recruitment required until 2015 for the region will therefore amount to 2.1 million teachers - most of them needed in countries where access to primary education is widening. In other words, the demand for new recruitment is almost equal to two-thirds of the current number of existing teachers in the region (2.9 million). The most critical teacher gaps are found in Burkina Faso, Chad and Niger, which must more than double the size of their teaching workforces by 2015, while the Central African Republic and Eritrea will need to triple their number of teachers if they are to achieve UPE (UIS 2011a).

Regardless of the factors mentioned above and the fact that teacher attrition is a global challenge both in developed and developing countries, three critical questions could be asked: (1) Why are the attrition statistics in sub-Saharan African countries so high? (2) Is it feasible for these countries to bridge these severe gaps by 2015? (3) In these countries, what are teacher retention and attraction policies based on? Figure 3 suggests that sub-Saharan Africa has by far the greatest need for additional teachers, given that three out of four countries (27 out of 45 countries) in the region face a significant teacher gap. In these 27 countries, 2.6 million teachers were employed in 2007.

The number of primary teachers must grow to 3.7 million in the eight years remaining to fulfil the EFA commitment, indicating a gap of 1.2 million (UIS 2011a). In addition, for every two teachers teaching in 2007, there must be three in 2015. Budgets for teacher salaries will have to grow by 50%, relative to levels reported in 2007. For sub-Saharan Africa, teacher attraction and retention is a policy crisis. It impacts on the policies of the UPE, EFA and MDGs. Each year, more teachers leave the profession than enter. From a policy perspective, to date too little has been done to solve the problem, a problem which is slowly becoming a crisis in the worst affected countries. While the challenge to retain highly competent teachers affects all schools, the crisis is critical in poor schools which, historically, have always suffered from a severe shortage of qualified teachers and which usually fill their vacancies with unlicensed teachers or full-time substitutes (Quartz et al 2005: 498).

The latest UIS projections point out that 2 million new teaching positions will need to be created in order to meet the goal of Universal Primary Education by 2015 (UNESCO Institute for Statistics 2011). These projections are based on data from 112 countries, where growth in enrolment is placing enormous pressure on already overburdened education systems as they try to achieve goals set out in the Millennium Development Goals and Education for All declarations. In sub-Saharan Africa, where enrolment has

soared in the past decade, teachers are in particularly short supply. Approximately 1 million new teaching positions need to be created in the region. Factoring in attrition, sub-Saharan Africa will need to recruit 350 000 new primary-level teachers per year up to 2015 to ensure that every child has access to quality education (UNESCO Institute for Statistics 2011).

Against this backdrop, the EFA Goal 2 (Ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to, and complete, free and compulsory primary education of good quality) and MDG Goal 2 (To ensure that, by the year 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling) are gradually becoming pipe dreams. Teacher attraction and retention are of central importance to the achievement of the 2015 MDGs and the UPE and EFA goals, more specifically in sub-Saharan African schools. Only three years away from 2015, there are large gaps in the provision of teachers. The International Task Force on Teachers for EFA (2010) indicates that approximately 1 million teachers have to be replaced every year to balance out teacher attrition. It further notes that not all countries are prepared and in a position to raise the number of their teachers accordingly, which puts them at risk of not being able to achieve the above goals. But the teacher gap is not only an issue of quantity - it is "qualified" and "motivated" teachers that are needed, and needed in quantity. To sum up: innovative policy pathways in teacher recruitment and retention are required to meet the demands of a high-quality and a representative teaching force to meet the challenges of NEPAD, UPE, EFA and MDGs policy ideals.

CONCLUSION

Despite the strides and significant progress made by various higher education institutions in bridging teacher shortage gaps and increasing the supply of teachers, persistent teacher attrition remains a crisis in sub-Saharan Africa. The task of improving teacher retention and attraction policies for a whole system of education must be seen as a long-term challenge. At a regional level, teacher retention and attraction policies require serious attention. Attrition plays a part in the teacher shortage problem, and efforts to improve retention must be informed by an understanding of the factors that contribute to attrition. This is why policymakers in sub-Saharan Africa need to rethink their teacher retention and attraction policies. At school level, non-salary interventions, which can encourage teacher retention, could be adopted. Among others, this includes: (1) *mentoring and induction*: schools need to provide mentoring programmes for new teachers - those schools that provide mentoring by colleagues appear to have lower rates of staff turnover; (2) *autonomy*: Schools which allow teachers more autonomy in planning and delivering the curriculum, are found to have lower rates of attrition; and (3) *support for professional development*: schools which encourage and support staff professional development are likely to see improved retention.

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