

A PROJECTION OF PRIMARY SCHOOLS' TEACHER RECRUITMENT AND DEMAND BY THE YEAR 2015 IN NANDI CENTRAL DISTRICT, KENYA

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ABSTRACT

This paper is based on a study that sought to establish the number of primary schools' teachers recruited and trends of teacher wastage over the five years between 2005 and 2009 in order to predict the teachers that will be required by the year 2015 in Nandi Central District in Rift Valley Province, Kenya. The study employed a descriptive research design. Non-probabilistic, in particular purposive sampling, technique was employed in choosing of the sample size for the study. The sample for the study comprised one Education officer in-charge of District statistics and one Teachers Service Commission Unit representative at the District Education Office. One staff in the records section at the Central Bureau of Statistics office in the District also participated in the study. The study was underpinned by the Manpower Requirement Approach theory based on an assessment of manpower needs both quantitative and qualitative, to meet economic, social and political goals. Data for the study was collected by use of; questionnaires, interview schedule, and document analysis. Questionnaire and interview schedule were used to obtain information on teachers, pupils and primary schools from the District Education Offices. The findings indicated that there was a shortage of teachers in the district because the TSC had not deployed enough teachers to all schools equitably according to the demand, in the district. A number of teachers were also moving out of the profession for different reasons such as low remuneration, early retirement, availability of 'greener pastures', deaths, dismissal and sicknesses. From the findings of this study it was recommended that the Teachers Service Commission should provide a solution to the anticipated shortage of teachers by employing more teachers and distributing them to primary schools. The study contributes knowledge that will help educational planners and policy makers formulate strategies that will enable teacher training institutions train teachers according to the anticipated demand by 2015.

Key Words: Projection, Primary Schools, Teacher Recruitment, Demand, Nandi Central, Kenya

Introduction

Projecting teacher demand is fundamental in provision of quality education if Kenya, as a developing, country is to attain its Millennium Development Goals (MDGs). According to Collymore (2005), the Millennium Declaration in which world leaders (Kenya included) unanimously adopted at their September, 2000, United Nations (UN) Summit, represents a vision for improving the lives of the World's people. The UN agencies and other international organizations defined eight distinct Millennium Development Goals (MDGs) and attached to them a series of quantifiable and time-bound targets and set of indicators for tracking progress. One of the MDGs is that of attaining Universal Primary Education. The Kenya government's policy was to achieve UPE by the year 2005 with the overall goal of attaining Education For All (EFA) by 2015. In order to achieve this, planning for adequate number of teachers should be given a priority (Koech, 1999).

Moreover, projecting teacher demand is fundamental if the country is to attain the Millennium Development Goal (MDG) of being industrialized by the year 2020. This is because quality education is the channel to achieving this goal. In 1990, UNESCO organized a meeting at Jomtien, Thailand to discuss ways of achieving the goal of education for life and life-long education. During the Conference, experts and leaders agreed that there was need to ensure all school-age children were afforded an opportunity to enrol. In April 2000, the World Education Forum meeting in Dakar, Senegal, reaffirmed this commitment and provided deadlines for achieving the goals and set the year 2015 as the deadline for realizing all of them (*Teachers' Image*; 2007, p.-10). However, this goal is faced with a number of emerging challenges such as HIV/AIDS.

HIV/AIDS has had serious consequences for various sectors of the economy, including education (Njeru & Kioko, 2009). Available evidence shows that the pandemic is affecting the supply, demand and quality of education, and its capacity to respond to new and complex demands. The Government of Kenya Report (1996) observes that there is inadequate data for manpower planning in Kenya. In addition there is no comprehensive system for monitoring human resources development trends. Hence there is no validation mechanism for comparing actual training performance with targets. In this kind of scenario it becomes difficult, if nearly not impossible, to plan or project teacher requirements in our schools. According to records at the District Education offices at Nandi Central District, there is persistent shortage of teachers and as a result the pupil-teacher ratios are often high for various primary schools. This can be attributed to poor planning; the shortage is a phenomenon that resonates in schools across the whole country.

The problem of the study, on which this paper is based, was to determine the demand for teachers in primary school in the year 2015 in Nandi Central District, to enable policy makers to plan to meet the projected demand. This projection for teachers has taken into account the number of students in primary school in the projected year that is 2015. According to Kamotho (2003), there is need for planning in education, especially in developing countries because there is scarcity of resources. There are insufficient funds to carry out all the educational programmes needed. Moreover, there is insufficient qualified manpower to actualize development programmes and there are other sectors besides education that compete for the resources also, for example, Health, Agriculture and Industry. It is through planning that the scarce resources can be maximized by rationalizing their allocation and utilization.

Teacher Demand

Teacher resources is a vital input into the education process as teachers are responsible for the delivery of the curriculum and hence are critical in determining the quality of education. With the introduction of the Free Primary Education (FPE) in 2003 in Kenya, there was upsurge in enrolment, which together with freezes in teacher recruitment has resulted to high PTR hence exerting pressure on the human resource (Kamotho, 2007). A sufficient supply of teachers should be available to meet the expected increase in students enrolment in primary schools as a result of increased in enrolment in primary schools due to the free primary education. The legacy of low demand for teachers in early to mid-1990s is a large full of qualified teachers who were unemployed by 1998 to the present. The aspect of the projected demand for primary school teachers over the next five years is likely to be a pick-up in growth in primary school enrolment an increase in retention rates. Demand for primary school teachers is likely to increase as a response to demographic changes, growth in the private school sector, and some increase recruitment associated to higher flows out of teaching due to retirement (<http://www.meeetya.edu.au /demand and supply1998>).

There has been a freeze in teachers' recruitment since 1997; the Teachers Service Commission (T.S.C) is only allowed to recruit teachers to replace those exiting through natural attrition. In 2001, teachers' recruitment was decentralized to district level for primary teachers and the Boards of Governors (B.O.G's) for secondary school teachers. Recruitment is therefore demand-driven (Kamotho, 2003). A critical challenge, according to Republic of Kenya (2006), relates to teachers' availability. In Kenya, there is inequitable distribution of teachers at the primary school level. There are also regional inequalities. The Republic of Kenya (1992) indicates that the increased demand for education naturally leads to increased demand for teachers. Kega (2000) in his research concluded that teachers play an important role in curriculum decision-making in school and even beyond school. Because of this crucial role, there must be enough teachers so that they can be engaged in the execution of various activities like decision making, setting and working examination both at the school and at the national levels.

Primary school teachers are trained at primary teacher training colleges and they specialize in all teaching subjects. TSC is charged with the responsibility of registering, recruiting, transferring, promoting and disciplining teachers. Unplanned teacher recruitment for public schools in the past distorted their distribution (Republic of Kenya, 2005).

Factors Determining Teacher Demand

According to (Sheehan, 1973), there are various factors that determine the demand for teachers at any level. Sheehan (ibid.) points out that the major determinant is the number of students attending school, and any projection of such demand must start by making projections of school enrolment. These projections should be available as a basic feature of any system of education planning, as they are very essential for the formulation of any judgment and plans of the future of the educational system. While estimating the demand for teachers, it means projecting the number of teachers necessary to teach the projected number of pupils. Another factor that determines teacher demand is the wastage rate. Wastage causes particular problems for the planner. Atkinson (1983) comments that:

Experience in the 1950s and 1960s showed how critically teacher supply planning is at the mercy of changes that may occur quickly in the rate of which teachers leave the profession. Future wastage rates, which may be powerfully influenced by the demographic or economic factors, cannot be predicted with confidence but will have immediate effects (p. 77).

A fall in wastage means that many teachers are retained in the profession and there is likelihood that those students leaving teacher-training institutions are likely to be unemployed. Increase in the wastage rate on the other hand has opposite effects because it results to shortage of teachers. Various studies have shown that women are more likely to leave the teaching profession than men. Wastage can be divided into sub-group. The easiest of these to predict is wastage due to retirement because there are records to show the age structure of the teaching profession, so it is easy to calculate the number that are likely to retire in a given (Atkinson, 1983). Psacharopoulos and Woodhall (1985) in their research have observed that projecting concentrate on the ratio between one type of manpower and a particular population parameter, such as total labour force of school-population. For example, both projections of demand for teachers based on teacher-pupil ratios rely on demographic projections combined with staffing norms. They further point out that teacher pupil-ratio frequently differ markedly from official norms, and the teacher-pupil ratio itself is influenced by factors such as the average size of class, the average teaching load per teacher among other factors.

Primary school teachers are expected to teach all subjects. Teachers are supposed to have 18 hours (27 lessons) of teaching per week. Each lesson lasts 35 minutes. The teaching load could be varied but attention must be paid on teachers' morale, professional support, supervision and

availability of teaching and learning materials. The Kenya Institute of Public Policy Analysis and Research (KIPPRA) (2003) call for increase in class sizes to 45 students “to ensure efficient use of both human and capital resources.” Atkinson (1983) observes that the teacher requirement depends on three main factors:

- a) The number of people to be taught
- b) The relationship between the number of people to be taught and teachers
- c) The number of new teachers needed to replace those leaving the profession

Other factors that would affect the number of teachers required are the number of subjects taught and the average teaching loads. At the Primary school level, class size as opposed to teacher-pupil ratio is applied. From the teaching point of view, class size seems more important than the teacher-pupil ratio, because what concerns teachers is the number of children they are expected to teach. There is widespread belief that smaller classes will lead to higher attainment; they also lead to more employment of teachers.

Teacher Projections

Projections on demand for teachers follow enrolment projections. Enrolment statistics therefore, form the basis for investment decisions on education where the teacher is the most important academic input. There are two methods commonly used in teacher projections. These are methods based on number of pupils per class and hours taught by teacher and the second one is the pupil-teacher ratio method.

Method based on Number of Pupils per class and Hours taught by a Teacher

This is a method used for projections of teacher requirements in the future; it takes into account the size of the class, the number of hours the students receives instructions per week and the number of hours taught by a teacher per week. This method requires a number of information which includes enrolment at every grade; average number of hours per week for a student as per the time-table; average number of students taught at the same time by one teacher; and average number of student-hours per week taught by a teacher. Here, all the different factors can be planned, as none of them is constant. The number of teachers required is directly proportional to the number of pupils and the average weekly hours per pupil.

Pupil-Teacher Ratio Method

The pupils-teacher ratio method calls for a calculation based on the pupil-teacher Ratio formula. In projecting teacher requirements, the base year ratio is computed, and on the basis of resources available, the pupil-teacher ratio is projected or fixed in the future while taking into account the total additional requirement of teachers, one should consider the rate of replacement of teachers. The steps for projecting teacher requirements can be divided into two parts:

- a) Calculate the total number of teachers required, and

- b) Calculate the net additional teachers required during the year.

Net additional requirement of teachers is then obtained by considering the annual replacement of teachers on account of attrition like death, resignation, retirement among other things, on the part of teachers.

Importance of Planning Teacher Numbers

There is need to plan for the teachers required in educational institution so that there can be validation mechanism for comparing actual training performance with the targets. The Republic of Kenya (1996) however points out that in Kenya there is inadequate data for manpower planning. In addition, there is no comprehensive system for monitoring human resource development and up to date much has been done in this area. Atkinson (1983) asserts that planning teacher numbers is a particularly important part of planning education. The reason is that the teaching profession is one of the most important categories of highly educated and qualified manpower. More educated people work in the education industry than in any other, and it is therefore both the producer and consumer of educated manpower. An increase in the demand for highly educated workers will necessitate an expansion of education and require more teachers to make the extension possible.

Psacharopolous and Wood hall (1985) argue that projecting teaching numbers is essential because the link between educational qualifications and the job is closer than in other occupations since training requirements are usually specified in official regulations. They also observe that opportunities for substituting capital for teachers are limited, although television or broadcasting may be used to supplement the work of trained teachers. Since the government is the main employer as well as the main source of supply of trained teachers, then the need for project is obvious, and since the training period is fairly long, the problem of time lags may be severe. For all these reasons, projecting teacher requirement is usually fundamental. The Ministry of Education in its Strategic Plan for the year 2006-2011 is targeting at achieving equity in the distribution of teachers and to improve Pupil Teacher Ration. It is also committed to achieving proportionate growth in the number of primary schools developed by the private sector and by extension increasing the gross enrolment ratio. The other objective is to ensure that appropriate teaching load for primary school teachers is put in place (Republic of Kenya, 2006).

The TSC has put in place measures for a continuous review of staffing levels in all schools. The Commission has reviewed staffing norms that have been in place since 1984. This review was necessary in order to address emerging issues such as increased number of schools that need teacher, need to achieve optimal utilization of teachers, rising school enrolment as a result of FPE and long absence from work by some teachers due to illnesses and leave. TSC and development partners commissioned a study and it was established that it is necessary to ensure that relief teachers are provided in the event of a teacher's long absence as a result of illness or

any of the other leave available in the teaching service. The study also points out that it is uneconomical for the government to provide teacher for schools that cannot attain a fixed PTR. In the case of primary schools, it has been established that teachers cannot be optimally utilized on enrolment in a school falls below 150 students (Kamotho, 2003).

Kamotho (2003) points out that the current situation nation-wide is that there are many schools that are calling for more teachers. There is comparatively less teacher shortage in urban schools as compared to rural schools. The introduction of FPE by the government created a need for additional teachers to cater for the increased enrolment in most primary schools, in addition, the enrolment rates in primary school has increased. In Kenya, there are typically three kinds of certification for teaching. A two- year certificate course through the country's 29 teacher training colleges and institutes, a three year diploma certificates through advanced teacher training colleges such as the Kenya Science Teacher College (KSTC), and the Kenya Technical Teachers College (KTTC), and third, through four year degree programs, with dual majors in education and other content subject areas. Teachers graduating from these programmes teach at different levels. Certificate holders from two year colleges teach in primary schools (K-8), while diploma and four-year degree holders teach in secondary schools (9-12) (Gravenir et al., 2006).

It is worth mentioning also that, today teachers leaving teacher training colleges wait without employment for an average of 3 years before they are hired. The immediate effect of this delay is the unlearning of the teaching skills acquired through training. At the same time quality teachers are being lost to other sectors of the economy where they can find employment. A more indirect effect is that candidates who could be good teachers are not enrolling teacher training institutions all together due to uncertainty in employment upon graduation (ibid.). The government of Kenya is committed to fostering quality education by providing the necessary infrastructure and adequate teachers. To respond to this challenge, the Ministry of Education Science and Technology and the Teachers Service Commission have undertaken to continuously update data on student enrolment in each school, number of teachers on leave and teachers' shortage or surplus (Kamotho, 2003).

Materials and Methods

The study was carried out in Nandi Central District situated in the western part of western part of Rift Valley Province. The District covers an area of 701.1 square kilometres. The research design adopted for the study was the descriptive research design. The design was appropriate for making specific prediction (projection) concerning the number of students and teachers in the primary school level by year 2015 in Nandi Central District.

The two (2) staff at the District Education Office (DEO) and one (1) Central Bureau of Statistics (CBS) of Nandi Central District who gave the records of children who were between 1-4 years in 2002 (288,846) formed the target population for the study. Kapsabet, the headquarters of the

District, was purposively selected for the study after considering factors such as availability of data for children between 1-4 years from the Central Bureau of Statistics Office, accessibility, financial reasons and time available for the study. The author purposively sampled the children who were between the ages of 1 and 4 in 2002 from the projected 1999 National Population Census this number of children were 288,846. One Education Officer in charge of Statistics and One TSC Unit representatives were also chosen because they had relevant information to this study.

Data collection instruments for the study were questionnaires, interview guides and documents analysis. Data analysis was done at two levels, the first level of data analysis involved coding of data manually. Data was organized to suit descriptive statistics. This organization entailed conversion of data into percentages and averages. This was done in order to establish the situation as it was in the base year and also to establish the trend over the last five years which was then used in projection. The second level of data analysis involved projecting enrolment into the target year and then determining teacher demand in that year.

Results and Discussion

In order to establish number of teachers working in primary schools in the Nandi Central District from the year 2005 to 2009, the study focused on the following areas: gender of primary school teachers, age distribution of primary school teachers, teacher qualification, teacher shortage, teacher employer, annual primary school teacher increment, projection of annual teacher increment, teacher wastage in primary schools, causes of teacher wastage, projection of the teacher wastage, projecting the number of teachers.

Gender of Primary School Teachers

The study intended to establish the number and gender of primary school teachers in Nandi Central District so as to determine the extent of gender balance in the District and to establish the degree of gender disparities in primary school teaching profession in the district. There were a total of 1493 primary school teachers in Nandi Central District in the year 2005. The male teachers were 754(50.50%) while the female teachers were 739(49.50%). A total of 1502 primary school teachers were there in the year 2006 in Nandi Central District. The male teachers were 759(50.53%) while female teachers were 743(49.47%).

In the year 2007, there were a total of 1507 primary school teachers in the District. The male teachers were 762(50.56 %), whereas the female teachers were 745(49.44%). In the following year, 2008, there were a total of 1432 primary school teachers in Nandi Central District. The male teachers were 703(49.09%), while the female teachers were 729(50.91%). Finally, in the year 2009, there were a total of 1441 primary school teachers in the District. The male teachers were 679(47.12%), while the female were 762(52.88%).

As indicated in the results above, it appears that there was gender parity among female and male teachers in the District. The difference is significantly small; it can almost be impossible to have equal number at any one time. This therefore, implies that there was no difference or inequality between male and female teachers in Nandi Central District from 2005 to 2009.

Age Distribution of Primary School Teachers in the year 2009

The age distribution of teachers in primary schools in Nandi Central District in the year 2009 was important in the study because 2009 was the base year. The age distribution of primary school teachers is important for planning purposes. There were 1441 teachers teaching in primary schools in Nandi Central District in the year 2009 of various age brackets.

According to the study, the teachers below age 29 years old constituted 5.90% of the total teacher population. The male teachers were 40, while the female teachers were 45 in number giving rise to a total of 85 primary school teachers in Nandi Central District. Primary school teachers' aged between 30 and 39 years were 413 in total (28.66%), comprising 195 male teachers and 218 female teachers. The primary school teachers of ages 40 and 49 years were the majority with a population of 612(42.47%) consisting of 288 male and 324 female teachers respectively. Those aged between 50 years and above were 331(22.97%). This was attributed to recent Government policy to raise retirement age of civil servants to 60 years. It seemed that majority of the teachers were within the ages of 40 to 49 years old.

Teacher Qualifications

Teachers' academic qualification is significant in determining the various levels of professional competence, which determines quality of teaching and hence students' performance. Teachers in the District had varied levels of academic qualification as indicated in Table 1 below.

Table 1: Teacher Qualifications

Qualification	No. of teachers	Percentage%
Bachelor's degree	162	11.24
Diploma	237	16.45
Certificate	1003	69.60
Untrained	39	2.71
Total	1441	100

Source: District Education Office. Nandi Central District (2009)

There were 39 untrained teachers who formed only 2.71% of the total teacher population, while teachers with Bachelors degree were 162(11.24%). This was closely followed by the teachers with diploma level education who were 237(16.45%). Primary school certificate teachers formed the majority level of 69.60% (1003). This last category was by far more than half the entire population of primary school teachers in Nandi Central District. This implies that the majority of teachers in the district were qualified to teach at primary school level. It is also evident that there were untrained teachers who were teaching at the primary school level in the District; also important to note is the significant number of degree holders at 11.24%. It may appear that in the near future, degree holders may become the required qualification for primary school teaching jobs.

Teacher Employer

The teachers in the District were employed by the Teachers Service Commission and the school management committees. This is important as it helps establish the support and the extent offered by the school management committees and the government to the primary school education sector in Nandi Central District.

The findings indicated that the number of teachers employed by the TSC was 1402(97.29 %), whereas 39(2.71%) teachers were employed by school management committees of various schools. TSC is the sole employer of teachers but because of perennial shortage the school management committees are forced to use their own resources to bridge the shortfall. This shows that there is inadequate number of teachers in the district employed by the TSC, as noted by Kamotho (2007) who observes that although staffing of public schools is supposed to be the main business of the government through TSC, this has remained a critical challenge since the Commission was established in 1967.

Teacher Shortage

As shown by the results on teacher qualifications and employer categories, there is a perennial primary school teacher shortage which has forced the school management committees to employ additional teachers to address this shortage. The study through interviews sought to know the causes of teacher shortage and the responses are as discussed below. There were 1441 primary teachers in Nandi Central District in the year 2009, “But the District still required more primary school teachers (73) because the ratio of teachers to pupils of 1:25 was far above the recommended ratios,” Said Mr. Mung’atsia the District Teachers Service Commission Representative.

The number of pupils joining primary schools each year is on the increase and did not, therefore, match the number of new schools coming up each year (from 194 in the year 2005 to 203 in the year 2009) according to the District Statistics Records (2010). Therefore, there is need for TSC

to recruit more teachers to cater for the shortfall. As a result of this shortage therefore, this study does not concur with the Governments policy, which advocated for a freeze on teacher employment from 1998; the Teachers Service Commission (TSC) was only allowed to replace those who left the profession due to natural attrition (Kurgat, 2009). “Many new primary schools in the District faced acute teacher shortage as compared to primary schools which started operating earlier on. Shortage in primary schools in the district was also occasioned by natural attrition”. Mr. Mungatsia (2010), the District Teachers Service Commission Representative had this to say:

Each year there were a number of teachers who opted out of the teaching profession (on average 3 teachers), some teachers leave the profession due to retirement; others retire early as a result of sickness whereas others opt out of the teaching profession in favour of other occupations.

According to Mr. Masiva, The District Statistics Officer, “Death is another factor that leads to teacher shortage as well as dismissal of teachers by the Teachers Service Commission on disciplinary grounds.” Another reason that led to teacher shortage in Nandi Central District was “Poor career choice” as noted by Mr. Masiva and Mr. Mungastia.

This concurs with what Kurgat (2009) argues, that a number of teachers did not choose teaching as a profession; they only landed there as a last resort and whenever an opportunity in a profession of their choice presents itself, they always opt out very quickly hence creating a shortage. This is also in agreement with Republic of Kenya’s (2004) call for the admission of people who give teaching as a first priority in their list of careers choices into teacher training institutions. Furthermore, Okumbe (1999) observes that teachers in developing countries have been conscripted into the teaching profession; thus the profession has two lots of teachers: those who chose the profession for intrinsic reasons, and those who, for reasons beyond their control, have found themselves in the profession.

Primary School Teacher Increment

The number of primary school teachers in the District has been increasing over the years. The results showed that in 2005 there were 51 new teachers recruited in the District. This increased to 11(17.7 %) in 2006 which brought the total to 62. A net increase of 1(1.6%) teacher in the recruitment of 2007 brought the number of teachers that year to 63. In the year 2008, 69 teachers were recruited resulting in a net increase of 6 (8.7%) and in the year 2009 the net increase was 3 (4.2%) teachers to a total of 72. These findings imply that, in each year there was a net increment in the number of teachers in the District as a result of yearly recruitment. However, this does not bridge the gap of the teachers’ shortage adequately based on the student teacher ratio of 25:1.

The annual teacher increase from 2005 to 2009 was 8.05%. This rate was arrived at by taking the average of the increment over the five year period and taking the absolute number.

Teacher Wastage in Primary Schools

Teacher wastage refers to the number of teachers who leave the teaching profession. Kamotho (2007) says that teachers can leave the profession for a number of reasons, including early retirement, dismissals, death and moving to other careers. Table 2 below shows the number of primary school teachers from the year 2005 to 2009 and the number of teachers that left the profession each year over the same period.

Table 2: Teacher Wastage Rate in Nandi Central from the year 2005 to 2009

Year	Number of Teacher	Recruitment	Wastage	Percentage Wastage Rate%
2005	1493	51	42	2.8
2006	1502	62	57	3.8
2007	1507	63	138	9.2
2008	1432	69	60	4.2
2009	1441	72	24	1.7

Source: District Education Office. Nandi Central District (2009)

As shown in Table 2, there were 42(2.8%) teachers that left the teaching profession in the year 2005, while 57(3.8%) teachers left the teaching profession in the following year 2006. In the year 2007, there were 138(9.2%) primary school teachers that left the teaching profession. In the year 2008, 60(4.2%) teachers left the teaching profession and 24(1.7%) teachers left the teaching professions in the year 2009. However, comparing the teacher increment and teacher wastage, the number leaving (in 2005 being 42, in 2006 being 57, in 2007 being 138, in 2008 being 60 and in 2009 being 24) was lower than those joining the professions except in the year 2007 (138). The net effect, therefore, was that there was an annual increase in the absolute numbers of teachers in spite of the wastage.

Causes of Teacher Wastage

The study, through, interviews sought to establish the causes of teacher wastage and the responses illustrated that teachers left the profession because of death, retirement, sickness interdiction and changing professions. Below is a discussion of these causes of wastage, as given by the interviewees. Mr Mung'atsia and Mr. Masiva, District Education Officers interviewed both said that "One cause of teacher attrition is retirement". Teachers who have attained the age of fifty-five (55) years up to the year 2009 were expected to retire from the teaching profession. From the data collected and analyzed, there were 321 teachers who had retired by the year 2009 and by the target year (2015) 74 teachers could have retired basing on retirement age of 60 years.

According to Mr. Masiva Mr. Mung'atsia, the interviewees, "Death is another cause of teacher attrition in the district." A number of teachers were lost through death each year and the leading cause of death according to the interviewees was HIV/AIDS related illnesses. Other causes of death are accidents, sicknesses and suicide among others. "Interdiction of teachers and subsequent dismissal by the Teachers Service Commission (TSC) on disciplinary ground is another cause of teacher wastage" said Mr. Masiva & Mr. Mungatsia District Education Officer Representatives interviewed.

They both further agreed that "other teachers opt for early retirement for different reasons. One reason for early retirement is due to sickness whereas others choose to retire early from the teaching profession so as to join other sectors of the economy". The researcher observed that a good number of teachers opt out of the teaching profession so as to join other professions. This shifting of professions is occasioned by poor career choice. Often many teachers who had not chosen teaching as their career end up in the teaching profession because of some reasons, these are the teachers who leave the profession whenever they find an opportunity in careers of their choice. Furthermore, teachers opt out of the teaching profession to join other sectors of the economy that have better terms and conditions of service especially better remuneration. The author observed that teachers are poorly remunerated and as a result most of them are continuously searching for greener pastures and leave whenever they find a place offering a higher pay. According to Wagaman (2009), some of the reasons the teachers leave the teaching career are for things which are out of their control, such as low pay and the particular administration in charge at their school. Wagaman (ibid.) further argues that other reasons include the working environment and the work load. Teachers often feel the pressure to teach and to find ways to have every pupil in their classroom pass state standardized testing methods regardless of each pupil capabilities. Therefore, schools need to work together to resolve these issues that cause teachers to leave their jobs, as the researcher also noted.

Projection of the Teacher Wastage

Based on the information given on Table 2 on teacher wastage rate from 2005 to 2009 teacher wastage trend was determined by taking the average of wastage rate over the last five years from 2005 to 2009. It follows, therefore, that the annual teacher wastage rate stands at 4.34%.

Projecting the Number of Teachers

From the information presented on the number of teachers, projected annual teacher increase and projected annual teacher wastage rate, the number of teachers in primary schools in the year 2015 is projected. Table 3 gives the projection of the number of teachers from 2010 to 2015. The projection is done using 2009 as the base year in which the number of teachers was 1441.

Table 3: Projection of the number of Teachers from 2010 to 2015

Year	Increment	Number of Teachers	Wastage	Net Number of Teachers
2010	116	1557	63	1494
2011	120	1614	70	1544
2012	124	1 668	72	1596
2013	128	1724	75	1649
2014	133	1782	77	1705
2015	137	1842	80	1762

Source: District Education Office. Nandi Central District (2009)

Table 3 shows that the projected number of teachers in Nandi Central District in the year 2010 will be 1557, after an increase of 116 teachers from 1441 teachers in 2009; however, an expected wastage of 63 teachers is expected to bring down the number of teachers to 1494. In the year 2011 the number of teachers will increase by 120 and the wastage will be 70 teachers, thus there will be a total of 1544 teachers. In the year 2012, the expected number of teachers will be 1688 after an increase of 124 teachers; however, the expected wastage will be 72 teachers and the number of teachers will decrease to 1596. In the year 2013, there will be an increment of 128 teachers bringing the total number of teachers to 1724; however, the expected teacher wastage of 75 will bring the total to 1649. In 2014, the increment will be 133 and the total number of teacher will come to 1782, the teacher wastage of 77 teachers will decrease the number of teachers to 1705. In the target (2015) the number of teachers is expected to be 1762 after an increase of 137 teachers and an expected decrease of 80 teachers. This seems to imply that, all things being equal, *Ceteris Paribus* in the next five years and by 2015, there will be a reduction in the number of teachers leaving the teaching profession as a result of raised retirement age to 60 years by the Teachers' Service Commission.

Conclusions and Recommendations

It is evident that the need to plan for the number of teachers is paramount since the teacher resource is a very vital input in the education system as it is the focus of the classroom instructional activity and curriculum determinant of the quality of education offered. The number of teachers at the primary school level in the base year (2009) was 1441. However, contrary to the expectation that the government, through the TSC, is supposed to provide adequate teachers to all public schools, there were a significant number of teachers who were employed by the school management committees in various schools. This is an indication that the number of teachers provided by the government through the TSC is not adequate; hence the School Management Committee has had to come in to address the shortage by employing more teachers. The Teachers Service Commission should therefore employ enough teachers and distribute them equitably according to the demand.

The author found out that, on average, a good measure of teachers left the profession. These teachers either retired upon attaining the age of sixty (60) years or left the profession due to other causes leading to wastage. Causes of attrition that were identified by the study included death, sickness, interdiction and dismissal by the Teachers Service Commission and poor career choices which in the end left teachers opting out so as to join professions of their preference. Despite the fact that a number of teachers opted out of the profession each year, there were also other people who joined the profession. The number of new entrants per year was on average higher than the number of teachers who moved out. Therefore, the net effect was that there was an annual absolute increase in the number of teachers. If the current rate of wastage and increment remains constant, the number of teachers who are expected to be in service by the target year (2015) is 1762 against the total requirement of 2735 teachers; the deficit would be 975 in the District, hence inadequate.

It is recommended that in order to ensure that as many teachers as possible are retained in the teaching profession, there is need to improve on terms and conditions of service such as remuneration. The remuneration should be commensurate to the amount of work that primary school teachers perform. Moreover, teachers should be given chances to further their education and be motivated through promotion upon the achievement of higher academic levels. Therefore, the Teachers Service Commission should review rules on teachers who are given study leave. For instance, the rule that a teacher who takes a paid study leave should not be promoted for at least two years after the study leave. Further, to lift the ban on teachers proceeding for studies with or without pay.

In addition, the Teachers Service Commission (TSC) working closely with the Ministry of Education (MOE) should employ more teachers, and equitably redistribute and balance teachers of varying competencies both in urban and rural areas. The Commission working closely with the Ministry of Education (MOE) establish a strategic plan owing to the significant number of degree holders at primary school level. It appears that in the near future degree holders may become the requirement qualification for primary school teaching jobs. To reduce teacher wastage due to poor career choices, primary school teacher training institutions should also only admit those who selected teaching as the first choice in their list of career choices.

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