



Full Length Research Paper

Impact of free Secondary Education Policy on Primary to Secondary Education Transition Rate in Kenya: A case study of Mbita and Suba Sub- Counties

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Abstract

Free Secondary Education policy was introduced in Kenya in 2008 with an aim of making secondary education affordable so as to enhance access, transition and student academic performance. Studies in some parts of Kenya like Kangundo Sub County have revealed that subsidized fees at all levels of education and particularly at primary and secondary education level enhances access, transition and academic performance. This seemed not to be the case in Mbita and Suba sub counties, where the transition rates from 2010 to 2014 were 39.4, 41.2, 40.4, 54.5, 59.2 for Mbita, 56.2, 54.4, 61.1 and 59.2 for Suba which were lower than the national transition rates of 68.9, 69.4, 68.4, 76.8 and 80.4 for the same period. The purpose of this study is to determine the influence of Free Secondary Education policy on transition in Mbita and Suba Sub-counties. A conceptual framework based on the Psacharopoulos and Woodhall (1985) production function was adopted to determine the influence of Free Secondary Education policy on transition. The study findings revealed that Free Secondary Education policy influenced transition. However, Free Secondary Education policy had high influence in small and medium schools and very high influence in large schools. The government should therefore increase capitation fees for each student by 100%, employ more teachers, improve infrastructure and where possible merge small and medium schools for purpose of cost effectiveness. It is expected that the findings of this study may inform ministry of education, planners, teachers, parents and policy makers on strategies to improve or redesign Free secondary education policy to improve transition rates at the same time assist in the on-going search for efficient and quality education accessed by all.

Keywords: Impact, Free Secondary Education Policy, Primary, Secondary, Transition Rate, Mbita and Suba Sub- Counties, Kenya.

INTRODUCTION

Free Secondary Education policy was introduced in Kenya in 2008 with an aim of making secondary education affordable (Ministry of Education, 2007). The social pillar in the Vision 2030 also singles out education as an important vehicle that will propel Kenya into becoming a middle-income economy. In addition, the Constitution, 2010 has provided for free and compulsory Basic Education as a human right to every Kenyan child (Ministry of Education, 2012). Free Secondary Education policy was expected to provide an equal opportunity to all secondary school going age entry to secondary

education regardless of their social class, gender, and ethnic background, physical and mental disability (Ngeno and Simatwa, 2015a). As a result of increased financial support it was expected that access and the number of students transiting from primary to secondary would improve. Free Secondary Education funding was expected to provide adequate resources to students especially candidates and it was hoped this would increase academic performance. Coombs (1968) defined quality of education as that education being offered that fits the real needs and values currently and prospectively

of a given country. Therefore quality education is the degree of achievement in education as evidenced in national examinations, transition from one level to the next and access. The first cycle of students who benefited from Free Secondary Education policy graduated in 2011 (Ngeno and Simatwa, 2015b).

Information from Homa-Bay county education office indicated that the Gross Enrolment Rate in Mbita and Suba Sub counties was 33% and 25% respectively for 2014 against national gross enrolment rate of 47.8%. The transition rate from 2010 to 2014 were 39.4, 41.2, 40.4, 54.5, 59.2 for Mbita sub-county while Suba was 56.2, 54.4, 61.1 and 59.2 which are lower than national transition rates of 68.9, 69.4, 68.4, 76.8 and 80.4 for the same period. Academic performance mean score in Kenya Certificate of Secondary Education for 2011 to 2014 were low 5.0 and 5.1 for Mbita and Suba respectively. Constraints in budgets and financial resources for government to finance Free Secondary Education policy makers and stakeholders would require strong evidence on the influence of Free Secondary Education policy on access, transition and student academic performance. What was unknown was the influence of Free Secondary Education policy on access, transition and student academic performance in Mbita and Suba Sub-counties. The purpose of the study was therefore to determine the influence of Free Secondary Education on transition in the two Sub –counties. The study would provide evidence and justification for continued financial support for Free Secondary Education policy by local and international partners

Chabari (2010) carried out a study on the challenges of implementation of Free Secondary Education in public secondary schools in Kangundo District in Kenya. The findings of the study indicated that following the introduction of Free Secondary Education, the average number of students in schools increased steadily thus leading to overcrowded classrooms. Further, the study reported that the funds released by the government were inadequate and were never released on time.

Ngware, Oketch, Ezech and Mudege (2009) examined whether households characteristics matter in schooling decisions in urban Kenya. The study established that the whole transition rate across all the study sites was about 75%. Both sexes combined, the lowest rate of transition was observed in Mombasa (66%) while highest in Kisumu (83%). The study further found out that there was a strong association between the household wealth index and probability of the transition. It was therefore necessary to establish whether the same scenario affect Mbita and Suba Sub-counties. The two sub –counties are located in Homa Bay county which neighbor Kisumu which had the highest transition rate. Further, many parts of Homa-Bay County especially Mbita and Suba experience high poverty levels, low income and HIV/AIDS pandemic which might affect transition in those regions (Ndolo, 2011). Consequently Free Secondary

Education policy was introduced to enhance transition of pupils from primary schools to secondary schools, improve on quality of secondary education and reduce wastage.

Ngeno and Simatwa (2015b) examined influence of Free Secondary Education policy on dropout rates in Kenya: A case study of Kericho County. The study population was 4,457 principals, Sub County Quality Assurance and Standard Officers, Directors of Studies and form IV students of 2011. Questionnaire, interview schedules, Focus group discussion guide and document analysis guide were used to collect data. Quantitative data was analyzed using cohort analysis, descriptive and inferential statistics. Qualitative data was transcribed and analyzed in emergent themes and sub themes. The study showed that form to form transition of the three cohorts (form I, II, III and IV from 2004 to 2007) were as follows; 9103; 9333; 9217 and 9281, the 2005 cohort transitioned as follows: 9434; 9434; 9434; 9329 and 9237 and the 2006 cohort transitioned as follows: 10516 and 10637. The fluctuations could be attributed to repetitions and dropout because on the whole a general decline could be observed as students transitioned from form one to form four for the 2004 cohort. This trend was of concern because with introduction of Free Secondary Education policy the participation rates were expected to increase and be sustained (Ngeno and Simatwa, 2015). It is therefore plausible to examine if the same trend applied to other areas in Kenya apart from Kericho hence the need to examine Mbita and Suba Sub-counties in order to establish whether the objective of Free Secondary Education policy to enhance transition of pupils from primary to secondary had been achieved. Further, Ngeno and Simatwa (2015b) examined form to form transition rates.

According to Ohba (2009), the situation in Sub Saharan Africa is different. The wide gap in secondary enrolment in Sub Saharan Africa and the rest of the world is raising concern. Many governments in the Sub Saharan Africa are considering abolishing secondary school fees in order to meet the targets of Education for All and the Millennium Development Goals. Fees charged at secondary education are the major obstacles for some children to access secondary education. Evidence indicates that secondary enrolment in SSA continues to be the lowest in the world (Ohba, 2009). In consideration of the constraints facing secondary education like low transition caused by rising cost of financing secondary education by many households, Sessional Paper No. 1 (Republic of Kenya, 2005) proposed Free Secondary Education policy which was implemented in 2008. The aim was to make secondary education affordable and available to all children regardless of their social classes. It was hoped that with the introduction of Free Secondary Education access to secondary education was going to expand, that is, 90%-100% completion rate by 2015. At the same time, the Government of Kenya through the

Ministry of Education aimed at providing globally competitive quality education and achieve transition rate of 70% in 2008 and 80% in 2012 (Wanja, 2014).

Abagi and Oanda (2014), observed that disparities in access, transition and performance at secondary school have persisted despite a series of policy interventions like Free Secondary Education. One of the reasons for the persisting inequalities is rooted in government funding policy in education sector. Consortium for Research on Education Access, Transition and Equity carried out a study in rural Kenya to establish whether Free Secondary Education has enabled the poor to gain access to secondary education. The report indicated that Free Secondary Education cannot solve the problem of access. Some parents interviewed said that while lowering school fees has enabled some to take their children to school, this does not mean all children from poor households are assisted to gain access to secondary education. Household income for many families has not changed while most prices of food and other commodities have soared thus reducing their ability to pay fees even in a day school (Ohba, 2009).

In Kenya, a task force on the realignment of the education sector to the constitution of Kenya 2010 (Ministry of Education, 2012) pointed to a gloomy picture. The report indicated that the issues and challenges of secondary education level are similar to those of the primary education sector. The introduction of Free Primary Education in 2003 and Free Secondary Education in 2008 notwithstanding, there is no total access as not all children who should be in school are in school due to high cost of secondary education especially costs which boarding militates against access (Ministry of Education, 2012). According to Economic Survey (2015), total enrolment nationally rose by 9.5% from 2.1 million in 2013 to 2.3 million in 2014. Gross enrolment rate increased from 54.3% in 2013 to 58.2% in 2014. This significant improvement is partly attributed to the implementation of Free Secondary Education. However, the situation in Mbita and Suba Sub- Counties does not reflect this achievement. According to Ministry of Education (2012) Mbita and Suba sub-counties, now separate sub-counties were once one district until the year 2010 when they were separated. Data available from the two sub-counties indicate that in 2010, Suba had a total enrolment of 3,595 (2151-boys and 1395-girls) while Mbita had a total enrolment of 4948(3376-boys and 1572-girls). Suba reflected only 25% out of 3546 students while Mbita 33% out of 4948 students access. From this statistical evidence, there is mismatch between the current trends in enrolment rates in Suba and Mbita sub-counties vis- a-vis the national government achievement of 47.8% in the entire county. Similarly, Table 2 shows the comparison of enrolment data for student per sub-county. It indicates that Suba and Mbita had the least enrolment (9% and 8%, respectively) compared to other sub-counties. The reviewed studies did not address the

effect of Free Secondary Education policy on access, transition rates and student academic performances in Mbita and Suba sub-counties.

Ministry of Education (2012) while assessing the progress towards access, transition and quality since 2000 reported that, over the years, enrolment has been steadily rising partly due to strategies of Free Primary Education and Free Secondary Education policies. A positive trend to transition has also been recorded with transition rates increasing from 43.3% (boys 43.8%, girls 42.6%) in 2000 to 56% (boys 57.2%, girls 54.7%) in 2005 surpassing the set target of 70% by 2010 and reached 72% in 2012 (Republic of Kenya, 2012). Similarly, according to Economic Survey (2015), the rate of transition from primary to secondary rose to 80.4% nationally in 2014 from 76.8% in 2013. This was attributed to the implementation of Free Secondary Education and expansion of education facilities. However, when national data are disaggregated to the sub- counties and school levels, major differences in response to Free Secondary Education policy become apparent. In Suba sub- County for example, the transition rate is estimated at 59.2% (boys and girls) in the year 2010. The girls' transition rate is far much below hence generating a lot of pertinent questions. The reviewed studies did not address transition in Mbita and Suba sub-counties, the gap in knowledge this study will sought to fill. Accessibility to quality and affordable secondary education has remained elusive for many Kenyans (Ministry of Education, 2007). According to the report of the task force on affordable secondary education, the cost of secondary education was the major factor to non-attendance of school. The taskforce recommended, Free Day Secondary Education that would cost the government Ksh. 10, 265 per child per year. For Boarding Schools, the government would give subsidy of Ksh. 10, 265 while the parents pay the rest per year (Ministry of Education, 2007). However, while this was indeed a welcome relief to parents, Nyaega observed that Free Primary Education and Free Secondary Education are in serious trouble following cases of massive fraud in the Ministry of Education (Nyaega, 2011).

Republic of Kenya (2005) Sessional paper No. 1 identified low transition from primary to secondary, low access, gender parity and poor academic achievement as mainly caused by rising cost of financing secondary education by many households (Wanja, 2014). Ministry of Education Science and Technology suggested an initiative and key priority including implementation of Free Secondary Education policy in all public secondary schools with effect from January 2008. The implementation of the affordable secondary education Free Secondary Education policy has been done by providing Kenya Shillings 10,265 per year per student in all public secondary schools but the much higher boarding charges were retained (Oketch and Somerset, 2010). In spite of the Government commitment, the Task

Table 1: Transition 2010- 2014

| | 2010 | 2011 | 2012 | 2013 | 2014 |
|--------------|-------------|-------------|-------------|-------------|-------------|
| National | 68.9 | 69.4 | 68.4 | 76.8 | 80.4 |
| Mbita | 56.2 | 54.4 | 61.1 | 59.2 | 68.1 |
| Suba | 39.4 | 41.2 | 40.4 | 54.5 | 59.2 |

Source: Mbita and Suba Sub-county Offices, 2014

Table 2: Enrollment per Sub-county in 2013

| Sub County | Total Enrolment | Percent |
|-----------------|-----------------|------------|
| Homa-bay | 15,478 | 24 |
| Mbita | 5,272 | 8 |
| Ndhiwa | 9,581 | 15 |
| Rachuonyo North | 10,110 | 16 |
| Rachuonyo South | 17,963 | 28 |
| Suba | 6,034 | 9 |
| Total | 64,438 | 100 |

Source: Homa-Bay County Education Office, 2015

Force on the Re-Alignment of the education sector to the constitution of Kenya (Ministry of Education, 2012) cautioned that the introduction of Free Secondary Education policy is facing stiff challenge relating to access and quality. It is reported that there is no total access as not all children who should be in school aged (13-17 years) are in school. There is no equity in accessing quality which has been complicated by severe shortage of teachers and inadequate learning materials leading to poor quality (Ministry of Education, 2012). A pertinent question one has to ask at this point; what influence does Free Secondary Education policy have on secondary school education sub- sector with regard to access, transition, and students' academic performances in Kenya. Tables 1 and 2 shows transition rates and Gross Enrolment rate.

From Table 1, it can be noted that the transition rates for Mbita and Suba Sub counties were below the national transition rates with the least being 39.4% and highest 68.1% for the years 2010 to 2014 while the national transition rates ranged between 68.4% to 80.4%.

Table 2 shows enrolment per sub-county in Homa-Bay County in 2013. The record indicates that Mbita sub-county had 5,272(8%), while Suba sub-county had 6,034(9%) and Ndhiwa 9,581(15%). The three sub-counties had the lowest enrolment record compared to other sub- counties in Homa-Bay County.

Research Objective

To determine the impact of Free Secondary Education

Policy on Primary to Secondary School Education Transition Rate in Mbita and Suba Sub- Counties.

Synthesis of literature on impact of free secondary education policy on transition rate

Transition is the number of children who continue from one level of education to another; it is the key indicator of the degree of access to education. Transition therefore reflects the efficiency of education system (Kimitei, 2010). Globally, the secondary Gross Enrolment Rate rose from 43% to 68% between 1970 and 2009. This means that enrolment in secondary schools represented 68% of the targeted school age population. However, the situation varied considerably across and within regions (UNESCO, 2011). During the period 1970- 2009, enrolment growth in secondary education was modest in North America and Western Europe. This is not surprising given the combination of high participation in secondary education and the declining school- age population in this region. Total enrolment at the secondary level increased from 53 million to 62 million while the school- age population declined from 66 million during the same time. As a result, the Gross enrolment rate grew from 80% in 1970 to 100% in 2009, the highest participation rate among all regions. Evidence available indicates that the region has maintained gender parity in secondary education (UNESCO, 2011).

Karugu, Oanda and Sifuna (2006) say, most African countries are largely modelled on educational systems of England and France. A study of the two countries'

education system indicates that in England most pupils move from primary school to secondary between ages 11 to 16 or 18. No charges are made for admitting pupils to publicly funded secondary schools. Most secondary schools are comprehensive, accepting pupils without regard to academic ability. Secondary education like primary Education is compulsory up to 16 years of age in France (Karugu et al, 2006). In both countries primary education is free and compulsory thus promoting transition rate. In 2002, the Gross Enrolment Ratio in secondary school for both boys and girls was 26% in Sub-Saharan Africa. The low transition rates from primary to secondary education for both boys and girls means that secondary education in Africa is not accessible to the majority of the relevant age groups (Karugu, Oanda and Sifuna, 2006). The concern is why has attainment of Universal Primary Education been elusive in many African countries? Ministry of Education while assessing the progress towards access, retention, equity, transition and quality since 2000 had this to report. Over the years enrolment has been steadily rising partly due to strategies of Free Primary Education and Free Secondary Education policies. A positive trend to transition rate has also been recorded with transition rates increasing from 43.3% (boys 43.8%, girls 42.6%) in 2000 to 56% (boys 57.2%, girls 54.7%) in 2005 surpassing the set target of 70% by 2010 stand at 72% (Ministry of Education, 2012).

The Ministry of Education reported that the transition rate from primary to secondary increased from 45.8% in 2003 to 59.9% in 2008 and estimated at 64.1% in 2009 and this was attributed to Free Secondary Tuition. The target remained 70% transition to secondary education (Ministry of Education, 2009). School of Education, University of Nairobi examined factors influencing transition rates from public primary schools to secondary school level in Murang'a East District. The study found that all the respondents that is, principals, parents and standard seven pupils perceived secondary school education as expensive and beyond the reach of many. They were driven by the fact that many parents were unable to pay fees for secondary education. The study recommended that greater budgetary allocation should be made to the education sector and it should place a greater emphasis in the financing of secondary school education to cater not only for tuition but also other accompanying costs (University of Nairobi, 2012).

Saitoti (2004) while presenting a paper at the council on foreign relations reported that transition rate from primary to secondary schools was low, with only less than 50% of primary graduates entering secondary school. He attributed this to low quality of some of the existing secondary schools, high cost of secondary education and lack of perceived incentives to continue education. During this period, the Free Secondary Education policy had not yet been introduced hence many secondary schools lacked textbooks and other

compliments. Students' to teachers' ratio was high and rigid academic programmes led to low quality education hence poor performance. This impacted negatively on transition. However, the question asked is what is the situation now after the introduction of Free Secondary Education?

Ngware, Abuya, Admassu and Oketch (2009) examined whether household characteristics matter in schooling decision in urban Kenya. They reported that, the whole transition rate across all the study sites was about 75%. There was no noticeable difference by gender except in Nakuru where the rates were substantially slightly higher than the national level transition rate estimated to be 73% in 2010 (Ministry of Education, 2012). Both sexes combined, the lowest rate of transition is observed in Mombasa (66%) while highest in Kisumu (83%). There was strong association between the household head level of education and transition rate as well as household wealth index and probability of the transition. This is consistent with findings in previous studies examining the association between household socio-economic and schooling outcomes by Ngware et al in 2009. Ngware et al, (2009) present the following arguments. One, that; Students from high socio-economic households get academic support from educated parents and are more likely to score high in primary school leaving examination. Secondly, In addition, better-off-households have more economic resources to let children continue their secondary education than children from low socio-economic background. However, when national data are disaggregated to the sub-counties and school levels, major differences in response to Free Secondary Education policy become apparent. In Suba sub-County for example the transition rate stood at 69% (72% boys and 62% girls) in the year 2010. The girls' transition rate is far much below hence generating a lot of pertinent questions on gender parity and regional disparities remain key issues to address. In 2013 transition rates for Suba and Mbita was 69% and 46% respectively compared to national transitional rate of 72%. The reviewed studies did not address transition in Mbita and Suba sub-counties. This was the basis of the study to examine the influence of Free Secondary Education policy on form to form transition in secondary schools in Mbita and Suba sub-counties, Kenya.

Conceptual framework

This study was based on Psacharopoulos and Woodhall (1985) concept of investment choices. The concept was relevant because the government made a choice to invest in education in order to improve access, transition and student academic achievement. The conceptual framework (Figure 1) postulates that provision of Free Secondary Education funds to secondary schools directly

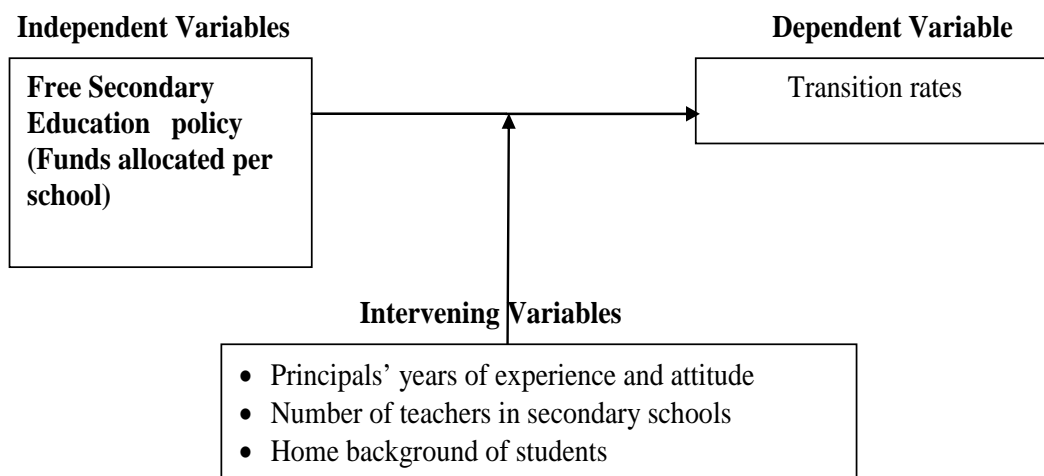


Figure 1: Conceptual Framework showing the impact of Free Secondary Education policy on primary to secondary education transition rates

Source: Adapted from Psacharopoulos and Woodhall (1985).

affects transition rates. Availability of Free Secondary Education funds was expected to increase demand for secondary education with more student expected to enroll in schools hence increase in transition rates. As a result of increased access and financial support, it was expected that there would be increase in students transiting from primary to secondary. Free Secondary Education funding enabled schools to provide resources to students especially candidates and this was expected to improve academic performances. However, academic performance may be confounded by experience of the principals, number and motivation of teachers in schools and student home environment such as social economic status of the households and distance to schools.

RESEARCH METHODOLOGY

The study adopted *ex-post facto* and correlational research designs. The study population consisted of 37 principals, 2775 students, 1 Sub-county Schools Auditor and 2 Sub –county Quality Assurance and Standards Officers. The study sample consisted of 34 principals, 1 Sub-county Schools Auditor, 2 Sub –county Quality Assurance and Standards Officers who were selected using saturated sampling technique and 337 form IV students of 2014 who were selected using simple random sampling technique. Questionnaire, Interview Schedule, Focus Group Discussion and Document Analysis Guide were used to collect data. Face and content validity of the questionnaire was established by supervisors by

including their input. Construct validity was determined by correlation. Reliability of instruments was established through a pilot study in 3 schools using test-retest method whereby the principal's questionnaire had a coefficient of 0.79 which was greater than the set P-value of 0.05 and therefore was reliable.

RESULTS

Demographic Characteristics of Principals

The demographic data of principals were as shown in Table 3. Out of 34 principals who participated in the study, 26(76.5%) were males while the rest 8(23.5%) were females. Both male and females respondents were represented. Majority of the principal 20 (58.8%) were graduates followed by masters graduates 12(35.3%) and only 2(5.9%) were diploma holders. This is a reflection of a generally high level of education among principals. Majority of the principals 38.2% (n=13) had 1-5 years of experience while 12(35.3%) and the rest 9(26.5%) had more than 10 years' experience. This means that principals' responses were credible as they were experienced, qualified and genderwise inclusive.

School Data

The school data was as shown in Table 4. A total of 34 public secondary schools participated in the study of

Table 3: Characteristics of Principals

| Demographic Characteristics | Frequency | Percentage |
|--------------------------------|-----------|--------------|
| Gender of Principals | | |
| Male | 26 | 76.5 |
| Female | 8 | 23.5 |
| Total | 34 | 100.0 |
| Highest education level | | |
| Diploma | 2 | 5.9 |
| Graduate | 20 | 58.8 |
| Masters | 12 | 35.3 |
| Total | 34 | 100.0 |
| Year of experience | | |
| 1-5 years | 13 | 38.2 |
| 6-10 | 12 | 35.3 |
| 11 and above | 9 | 26.5 |
| Total | 34 | 100.0 |

Table 4: School Data

| School Size | Population (Range) | Number of Schools | Percentage |
|--------------|--------------------|-------------------|--------------|
| Small | 128-933 | 17 | 50.0 |
| Medium | 1,115-1,697 | 12 | 35.3 |
| Large | 2,085-5,650 | 5 | 14.7 |
| Total | | 34 | 100.0 |

which 15 were from Suba Sub-county and 19 were from Mbita sub-county. The schools were classified as small size, medium and large size based on number of enrolments from 2008 to 2014. Small schools were schools with between 128-933 students; medium schools had between 1115-1697 sand large schools had 2085 to 5650 students. From Table 4 it can be observed out 34 schools, 17(50%) were classified as small size, 12 (35.3%) were medium sized and 5 (14.7%) were classified as large size.

Research Objective

The research objective was to determine the impact of Free Secondary Education Policy on Primary to Secondary Education Transition Rates in Mbita and Suba Sub- Counties.

To address this objective the null hypothesis: There is no statistically significant relationship between Free Secondary Education policy and transition rate from primary schools to secondary schools in Mbita and Suba sub-counties was generated. To respond to this hypothesis data on number of students who transited from primary schools to secondary schools and Free

Secondary Education funds that were received were computed and the results were shown in Table 5.

In order determine the influence of Free Secondary Education policy on transition the 34 schools were classified into three categories namely; small schools (n=17), medium (n=12) and high schools (n=5) based on school enrolments. The total Free Secondary Education funds for the number of students who transited from primary schools to secondary schools were computed (Table 5).

From Table 5, it can be observed that overall Free Secondary Education funds received by the schools for students who transited from primary schools to secondary schools was Kshs. 25,108,190 in small schools. Free Secondary Education funds received by medium secondary schools was Kshs. 39,407,335 while the Free Secondary Education Funds received by large secondary schools was Kshs. 37,592,695. Pearson Product- Moment Correlation coefficients (r) were therefore interpreted to determine the contribution the influence of free secondary education funds on transition using Pearson's r. Pearson's r was used to determine the direction and strength of the relationship. Elifson, Runyon and Haber (1990); Leedy and Ormrod (2005) interpretation guidelines were used as shown in Table 6.

Table 5: Descriptive statistics for Free Secondary Education policy and Transition

| S/N | Free Secondary Education Funds spent in Small Schools | Students population in Small secondary Schools | S/N | Free Secondary Education Funds in spent in Medium secondary Schools | Students population in Medium secondary Schools | S/N | Free Secondary Education Funds spent in Large Schools | Students population in Large secondary Schools |
|--------------|---|--|-----|---|---|-----|---|--|
| 1 | 810,935 | 122 | 1 | 3,130,825 | 345 | 1 | 4,229,180 | 545 |
| 2 | 1,129,150 | 188 | 2 | 3,756,990 | 457 | 2 | 6,066,615 | 664 |
| 3 | 1,837,435 | 258 | 3 | 3,623,545 | 362 | 3 | 7,452,390 | 932 |
| 4 | 2,340,420 | 250 | 4 | 2,863,935 | 329 | 4 | 14,504,445 | 1474 |
| 5 | 2,350,685 | 311 | 5 | 3,007,645 | 310 | 5 | 5,340,065 | 511 |
| 6 | 985,440 | 138 | 6 | 3,007,645 | 393 | | | |
| 7 | 523,515 | 86 | 7 | 3,664,605 | 412 | | | |
| 8 | 1,601,340 | 253 | 8 | 2,915,260 | 356 | | | |
| 9 | 1,057,295 | 115 | 9 | 3,202,680 | 381 | | | |
| 10 | 893,055 | 155 | 10 | 4,362,625 | 444 | | | |
| 11 | 1,077,825 | 159 | 11 | 3,479,835 | 383 | | | |
| 12 | 1,467,895 | 123 | 12 | 2,391,745 | 325 | | | |
| 13 | 636,430 | 120 | | | | | | |
| 14 | 1,888,760 | 149 | | | | | | |
| 15 | 379,805 | 48 | | | | | | |
| 16 | 328,480 | 39 | | | | | | |
| 17 | 5,799,725 | 313 | | | | | | |
| Total | 25,108,190 | 2,827 | | 39,407,335 | 4,497 | | 37,592,695 | 4126 |

Table 6: Interpretation of Pearson's Correlation Coefficients (r)

| Negative (-) | Positive (+) | Strength of the relationship |
|--------------|--------------|------------------------------|
| 0.01 – 0.30 | 0.01 – 0.30 | Weak/low/small |
| 0.40 – 0.60 | 0.40 – 0.60 | Moderate/ medium |
| 0.70 – 0.99 | 0.70 – 0.99 | Strong/high |
| 1.00 | 1.00 | Perfect relationship |
| 0.00 | 0.00 | No relationship |

Source: Adapted from Elifson, Runyon and Haber (1990); Leedy and Ormrod (2005)

Relationship between free secondary education policy and transition to secondary school education

Pearson's r was used to establish the relationship between Free Secondary Education policy and transition to secondary school education. The results were as shown in Table 7.

The results were as indicated in Table 7. From Table 7 it can be observed that there was a positive and strong relationship between Free Secondary Education policy and transition. The relationship was significant as signified by the calculated p -value of .000 which was less than the set p - value of 0.05. The null hypothesis was therefore rejected. This means that an increase in Free Secondary Education funds would increase students' transition from primary schools to secondary schools.

To estimate the impact of Free Secondary Education on transition, coefficient of determination was computed. The results were as shown in Table 8.

From Table 8 it can be noted that the impact of the Free Secondary Education policy accounted for 71% of the variation on transition as signified by the coefficient of 0.710. The other 29% could be explained by other factors.

To determine whether Free Secondary Education was a significant predictor on transition, ANOVA was computed. The results were as shown in Table 9.

From Table 9 it can be observed that Free Secondary Education policy was a significant predictor on transition as the calculated p -value was .000<.05. This means that Free Secondary Education policy can be relied on as a predictor of transition to secondary school education.

Table 7: Correlation between overall Free Secondary Education policy and transition

| | | Free Secondary Education | Transition |
|---------------------------------|---------------------|--------------------------|------------|
| Free Secondary Education policy | Pearson Correlation | 1 | .842 |
| | Sig. (2-tailed) | | .000 |
| | N | 34 | 34 |

Table 8: Regression analysis for the influence of Free Secondary Education policy on transition to secondary school education

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .842 ^a | .710 | .701 | 149.842 |

a. Predictors: (Constant), Free Secondary Education policy

Table 9: Analysis of Variance of the impact of Free Secondary Education policy on transition to secondary school education

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|---------------|--------|-------------------|
| 1 | Regression | 1,757,214.545 | 1 | 1,757,214.545 | 78.263 | .000 ^b |
| | Residual | 718,487.573 | 32 | 22,452.737 | | |
| | Total | 2,475,702.118 | 33 | | | |

a. Dependent Variable: Transition

b. Predictors: (Constant) Free Secondary Education policy

Table 10: Linear Regression Analysis of the impact of Free Secondary Education policy on transition to secondary school education

| Model | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---------------------------------|-----------------------------|------------|---------------------------|--------|------|
| | B | Std. Error | Beta | | |
| Enrolment | 336.767 | 25.698 | | 13.105 | .000 |
| Free Secondary Education policy | 236.633 | 26.748 | .842 | 8.847 | .000 |

Dependent Variable: Transition rate Regression Equation $Y = a + bx$

Regression analysis for influence of Free Secondary Education policy on transition

In order to establish the actual influence of Free Secondary Education policy and overall transition in all schools, a linear regression analysis was performed. The result was as shown in Table 10.

From Table 10 it can be revealed that one unit increase in free secondary education funding can lead to increase in transition to secondary school education by 236.633 units as indicated by the coefficient of 236.633. The regression equation is $Y = 336.767 + 236.633X$. This

means that free secondary education policy has a high impact on transition to secondary school education.

The study rigorously interrogated the influence of free secondary policy on transition by categorizing schools into small, medium and large based on student population from 2008 -2014 where small school student population range was 10 -1000 medium 1010 -2,000 and large above 2,010. The study sought to establish the relationship between Free Secondary Education policy and transition according to school size. This was necessary because the three categories of schools do exist and it was of interest to unravel the difference in

Table 11: Correlation between Free Secondary Education policy and Transition in small schools

| | | Free Secondary Education | Transition |
|---------------------------------|---------------------|--------------------------|------------|
| Free Secondary Education policy | Pearson Correlation | 1 | .864 |
| | Sig. (2-tailed) | | .000 |
| | N | 17 | 17 |

Table 12: Regression analysis of impact of Free Secondary Education funds on transition in small secondary schools

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .864 ^a | .746 | .729 | 44.322 |

a. Predictors: (constant) free Secondary Education policy.

Table 13: Analysis of Variance of Impact of Free Secondary Education on Transition in Small Secondary Schools

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|--------|-------------------|
| 1 | Regression | 86,593.811 | 1 | 86,593.811 | 44.081 | .000 ^b |
| | Residual | 29,466.189 | 15 | 1,964.413 | | |
| | Total | 116,060.000 | 16 | | | |

a. Dependent Variable: Transition

b. Predictors: (Constant), Free Secondary Education policy.

impact of free secondary education policy on transition in the three categories of secondary schools so as to advise policy makers on where to spend more Free Secondary Education funds and get the desired results.

Impact of Free Secondary Education Policy on Transition to Secondary School Education in small secondary Schools

To establish the impact of free secondary education policy in small secondary schools inferential statistics were used, that is Pearson product- moment correlation (r) and regression analysis.

From Table 11 it can be observed that there was a positive and strong relationship between Free Secondary Education policy and transition. The relationship was significant as signified by the calculated p-value of .000 which was less than the set p – value of .05. This means that an increase in Free Secondary Education funding would increase transition. To estimate the impact of Free Secondary Education funds, coefficient of determination was computed. The results were as shown in Table 12.

From Table 12, it can be noted that the contribution of the Free Secondary Education accounted for 74.6% of the variation on transition as signified by the coefficient of .746. The other 25.4% could be explained by other factors.

To determine whether Free Secondary Education was a significant predictor on transition, ANOVA was computed. The results were as shown in Table 13.

From Table 13 it can be observed that Free Secondary Education policy was a significant predictor on transition as the calculated p-value was .000<.05. This means that Free Secondary Education funds can be relied on as a predictor on transition to secondary school education.

To determine the actual contribution linear regression analysis was done. The results were as shown in Table 14. From Table 14 it can be revealed that one unit increase in Free Secondary Education funds can lead to increase in transition rate by 126.683 units as indicated by the coefficient 126.683. The regression equation is $Y = 265.591 + 126.683X$. This means that free secondary education policy has a high impact on transition to secondary school education.

Impact of Free Secondary Education policy on Transition to Secondary School Education in Medium secondary schools

To establish the impact of Free secondary education policy in medium secondary schools inferential statistics were used, that is person product- moment correlation (r) and regression analysis.

Table 14: Linear Regression Analysis of Impact of Free Secondary Education policy on Transition in small secondary schools

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|--------------------------|-----------------------------|------------|---------------------------|--------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 265.591 | 18.332 | | 14.488 | .000 |
| | Free Secondary Education | 126.683 | 19.081 | .864 | 6.639 | .000 |

a. Dependent Variable: Transition rate in small secondary schools Regression Equation $Y = a + bx$

Table 15: Relationship between Free Secondary Education funds and transition in Medium Secondary Schools

| | | Free Secondary Education | Transition rate |
|---------------------------------|---------------------|--------------------------|-----------------|
| Free Secondary Education policy | Pearson Correlation | 1 | .804 |
| | Sig. (2-tailed) | | .002 |
| | N | 12 | 12 |

Table 16: Regression Analysis of the impact of Free Secondary Education policy on transition in medium secondary schools

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .804 ^a | .646 | .611 | 40.345 |

a. Predictors: (Constant), Free Secondary Education

Table 17: Analysis of Variance of impact of Free Secondary Education policy on Transition in Medium Secondary Schools

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|--------|-------------------|
| 1 | Regression | 29,747.378 | 1 | 29747.378 | 18.275 | .002 ^b |
| | Residual | 16,277.539 | 10 | 1627.754 | | |
| | Total | 46,024.917 | 11 | | | |

a. Dependent Variable: Form one

b. Predictors: (Constant), Free Secondary Education policy

From Table 15 it can be observed that there was a positive and strong relationship between Free Secondary Education policy and transition. The relationship was significant as signified by the calculated p-value of .002 which was less than the set p – value of 0.05. The null hypothesis was therefore rejected. This means that an increase in Free Secondary Education funding would increase student's transition to secondary school education.

To estimate the contribution of Free Secondary Education funds, coefficient of determination was computed. The results were as shown in Table 16.

From Table 16 it can be noted that the impact of Free Secondary Education accounted for 64.6% of the variation on transition as signified by the coefficient of 0.646. The other 35.4% could be explained by other factors.

To determine whether Free Secondary Education was a significant predictor on students transition ANOVA was computed. The results were as shown in Table 17.

From Table 17 it can be observed that Free Secondary Education policy was a significant predictor of transition as the calculated p-value was .002 < .05. This means that Free Secondary Education funds can be

Table 18: Linear Regression Analysis of the impact of Free Secondary Education policy on transition in medium secondary schools

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|---------------------------------|-----------------------------|------------|---------------------------|--------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 311.884 | 22.281 | | 13.998 | .000 |
| | Free Secondary Education policy | 171.289 | 40.068 | .804 | 4.275 | .002 |

a. Dependent Variable: Transition: Regression Equation $Y = a+bx$

Table 19: Relationship between Free Secondary Education policy and transition in large secondary schools

| | | Free Secondary Education | Form ones |
|---------------------------------|---------------------|--------------------------|-----------|
| Free Secondary Education policy | Pearson Correlation | 1 | .957 |
| | Sig. (2-tailed) | | .011 |
| | N | 5 | 5 |

Table 20: Regression analysis for the influence of Free Secondary Education policy on transition in large secondary schools

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .957 ^a | .915 | .887 | 151.125 |

a. Predictors: (Constant), Free Secondary Education

relied on as a predictor on transition of secondary school education.

To determine the actual contribution linear regression analysis was done. The results were as shown in Table 18.

From Table 18 it can be revealed that one unit increase in Free Secondary Education funds can lead to increase on transition rate by 171.289 units as indicated by the coefficient 171.289. The regression equation is $Y = 311.884 + 171.289X$. This means that Free Secondary Education policy has a high impact on transition to secondary school education.

Impact of Free Secondary Education Policy on Transition Rate to Secondary School Education in Large Secondary Schools

To establish the impact of Free secondary education policy in large secondary schools inferential statistics were used, that is person product- moment correlation and regression analysis.

From Table 19 it can be observed that there was a positive and strong relationship between Free Secondary Education policy and transition. The relationship was

significant as signified by the calculated p-value of .011 which was greater than the set p – value of .05. The null hypothesis was therefore rejected. This means that an increase in Free Secondary Education funds would increase students enrolment.

To estimate the impact of Free Secondary Education policy, coefficient of determination was computed. The results were as shown in Table 20.

From Table 20 it can be noted that the contribution of the Free Secondary Education accounted for 91.5% of the variation on transition as signified by the coefficient of 0.915. The other 8.5% could be explained by other factors.

To determine whether Free Secondary Education policy was a significant predictor on transition rate, ANOVA was computed. The results were as shown in Table 21. From Table 21 it can be observed that Free Secondary Education policy was a significant predictor on transition rate as the calculated p-value was $.011 < .05$. This means that Free Secondary Education funds can be relied on as a predictor on transition to secondary school education.

To determine the actual impact linear regression analysis was done. The results were as shown in Table 22.

Table 21: Analysis of variance of impact of Free Secondary Education policy on Transition in large secondary schools

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|--------|-------------------|
| 1 | Regression | 740,122.488 | 1 | 740,122.488 | 32.406 | .011 ^b |
| | Residual | 68,516.312 | 3 | 22,838.771 | | |
| | Total | 808,638.800 | 4 | | | |

a. Dependent Variable: Transition rate in large schools

b. Predictors: (Constant), Free Secondary Education policy

Table 22: Linear Regression Analysis of the impact of Free Secondary Education policy on transition rate in large secondary schools

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|--------------------------|-----------------------------|------------|---------------------------|--------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -890.531 | 300.930 | | -2.959 | .060 |
| | Free Secondary Education | 1106.781 | 194.422 | .957 | 5.693 | .011 |

a. Dependent Variable: Transition Regression Equation $Y = a + bX$

From Table 22 it can be revealed that one unit increase in Free Secondary Education funds can lead to increase on transition rate by 1106.781 units as indicated by the coefficient 1,106.781. The regression equation is $Y = -890.531 + 1106.781X$. This means that free secondary education policy has a high impact on transition rate to secondary school education.

DISCUSSION

Transition rate is the number of pupils or students admitted to the first grade of a higher level of education in a given year, expressed as a percentage of the number of pupils or students enrolled in the final grade of the lower level of education in the previous year. It conveys information on the degree of access or transition from cycle or level of education to a higher one. In Kenya, the transition rate from primary schools to secondary schools is of great concern. It was so low that the Kenya government took a bold step to deal with it. Thus the Ministry of Education in 2008 (Ministry of Education, 2008) noted that one of the challenges that had faced the secondary school education – sub sector had been that of low transition rate from primary schools. It emphasized that the low transition rate had been occasioned, mostly, by the fact that it was fee paying. With the recognition of this reality, the government made a commitment through the Sessional Paper No. 1 of 2005, to increase the transition to 70% by providing free basic education. The first step in the implementation of this policy started with a stakeholders' forum which led to the formation of the

Taskforce on Affordable secondary Education. The key mandate of this team was to examine the costs as tabulated in schools' joining instructions as well as identifying modalities for the implementation of Free Secondary Education. Based on the task force report recommendations as had been discussed and agreed by all stakeholders in the sector guidelines were formulated for implementation with effect from 2008/2009 Financial year.

The Free Secondary Education policy also known as Free Day Secondary Education policy is government subsidy to schools based on capitation. The Free Secondary Education initially costed the government Kshs. 10,265.00 per child per year. The breakdown of the cost was as shown in Table 23.

The Free Secondary Education funds were given to ensure equity as many children in Kenya were disadvantaged mainly due to high poverty levels. With Free Secondary Education policy fully operationalized, every Kenyan child was entitled to Free Secondary Education funded by the government. Free Secondary Education funds are disbursed directly to schools in three tranches. The first disbursement is normally in January and subsequently in April and August of every year, though variations do occur. The Free Secondary Education funds are disbursed to public schools under the following conditions:

- i) The school must be duly registered
- ii) The school must submit accurate and up to date enrolment data
- iii) The school must submit the relevant bank accounts to Ministry of Education

Table 23: Free Secondary Education Funding

| Vote head | Amount (Kenya shillings) |
|--------------------------------------|--------------------------|
| Tuition | 3,600.00 |
| Repairs, maintenance and improvement | 400.00 |
| Local Travel and Transport | 400.00 |
| Administration costs | 500.00 |
| Electricity, water and conservancy | 500.00 |
| Activity fees | 600.00 |
| Personal emoluments | 3,965.00 |
| Medical | 300.00 |
| Total | 10,265.00 |

Source: Ministry of Education, Guidelines for Free Secondary Education, 2008

Table 24: Guidelines for Non-Teaching Staff Employment

| Number of streams | Enrolment | Day schools | Number of workers | Boarding schools | Number of workers |
|-------------------|-----------|-------------|-------------------|------------------|-------------------|
| 1 | 180 | | 6 | | 10 |
| 2 | 360 | | 8 | | 15 |
| 3 | 540 | | 9 | | 20 |
| 4 | 720 | | 13 | | 28 |
| 5 | 900 | | 15 | | 30 |
| 6 | 1080 | | 18 | | 36 |

NB: Schools with more than six streams must consult with the Ministry of Education for further guidelines.

Source: Ministry of Education, Guidelines for implementation of Free Secondary Education, 2008

iv) Capitation is based on fully enrolled classes with a minimum of 40 and maximum 45 of students for each eligible class.

For boarding school charge boarding fees that reflect the cost of their living in respective areas provided they do not exceed the maximum amount set by the government.

To ensure accountability and smooth implementation of the Free Secondary Education funds, all schools operate the following accounts;

i) **A Tuition Account:** Only tuition funds are deposited in this bank account all payments are strictly by cheque. The funds are utilised for the procurement of teaching and learning materials only.

ii) **Operational Account:** This account is used for the disbursement of government subsidies except the tuition.

iii) **Boarding Account:** This account holds funds paid in by parents for boarding related expenses.

The parental obligations in this programme are;

i) School uniforms

ii) Boarding related costs as reflected in the boarding school fees and structure

iii) Lunch for day scholars

iv) Other approved projects by DEB in consultation with Board of Governor and Parents Teachers Association.

In addition, the Ministry of Education disburses funds to support non-teaching staff. The Ministry of Education caters for non-teaching staff as shown in Table 24.

This study revealed that the Free Secondary Education policy has impacted positively on transition rate from primary schools to secondary schools from the time of its inception in 2008. The Pearson product-moment correlation (r) revealed that Free Secondary Education policy correlated positively with transition rates, and the relationship was strong with a coefficient of .842 at the critical value of .05. This means that increase in Free Secondary Education funding can lead to increase in transition rate. This funding concurs with the finding of the Economic Survey 2015 (Republic of Kenya, 2015) which indicated that transition rate from primary schools to secondary schools in Kenya from 2010 to 2014 increased (Figure 2).

Figure 2 shows pupil completion rate and primary to secondary transition rate from 2010 to 2014. The primary completion rate increased from 75.6% in 2010 to 78.5% in 2014 while the primary to secondary transition rate rose to 80.4% in 2014 from 68.9% in 2010. The improvement in primary to secondary transition rate can be partly attributed to implementation of Free Secondary Education (FDSE) and expansion of

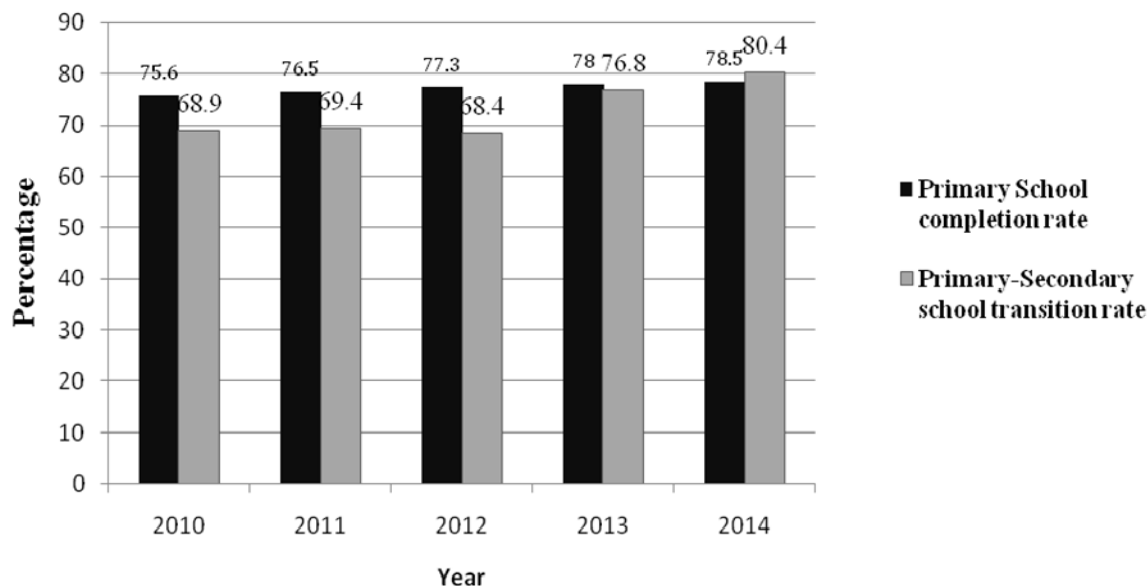


Figure 2: Pupil Completion Rate and Primary to secondary Education Transition Rate in Kenya
Source: Economic Survey, 2015

education facilities. This is supported by the regression analysis that revealed that in small secondary schools free secondary education policy accounted for 74.6% of the variation in transition rate; in medium secondary schools, 64.6% of the variation in transition rate and in large secondary schools 91.5% of the variation in transition rate. Overall, Free Secondary Education policy accounted for 71% of the variation in transition rate in Mbita and Suba sub counties. These transition rates compare favourably with the national ones. This means that the impact of free secondary education policy on transition rates is high as envisioned by the stakeholders in education as had been established by the Taskforce Report 2007.

The transition rate is very high and notion in large secondary schools which because of cost-effectiveness due to economies of scale. Because they are large, the cost of operations decreases and therefore it is easier to expand facilities to accommodate more students and hence high transition rates in these schools. The economies of scale also enables large secondary schools to meet the demands of students easily and attract more students hardly dropout. Small secondary schools are sub county schools and attract more students too because parents do not pay any fees at all, other than meeting parental obligations and most children from very low income earners easily access them. The medium secondary schools are county schools, most of which are boarding schools whose catchment area is large. Since they are also endowed with economies of scale transition rates are high. They attract more students because of better facilities that are maintained cost effectively.

The Constitution of Kenya (2010) Children Act, 200, The Basic Education Act, 2013 and the Technical Vocational Education and Training Act 2013 have also impacted on the transition rates with emphasis on education as a basic human right that should be enjoyed by all as it is the ultimate provision for empowerment.

Essentially free secondary policy caters for the basic needs for schooling at secondary school level in the manner that learners or student are empowered to learn with minimal disturbances. For an education system to succeed the school must be friendly and provide the pre-requisites for schooling in terms of curricular, co-curricular and welfare services. This is in fact what free secondary education has endeavoured to provide, and to large extent it is providing as evidenced in the voteheads herein highlighted with all these basic requirements met many if not primary school children have to develop educational zeal to continue with schooling. Children from disadvantaged backgrounds view education as the passport to good life and therefore do not hesitate to grab the opportunity in the secondary education sub sector, motivated by the Free Secondary Education policy.

CONCLUSION

Free Secondary Education policy has positively and significantly influenced primary to secondary school transition rates. This is because it has made secondary education affordable to many pupils, and their parents. Transition rates are highest in large secondary schools and medium secondary schools. High transition rate is

also experienced in small schools, but retention rate is low and that is why enrollment in these schools is generally low.

RECOMMENDATIONS

- i) The small secondary schools should be merged so that Free Secondary Education funding becomes cost-effective. This will improve further on transition rates.
- ii) Medium secondary schools should be encouraged to admit more students to enhance transition rates as they have a high potential of attracting more students.
- iii) Large secondary schools should be allowed to expand further so as to enhance transition rates because they benefit more from economies of scale.
- iv) There should be further increase in capitation so that the intent of 100% transition rate from primary to secondary school is achieved.

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