

**CONTRIBUTION OF COUNTY BURSARY FUND ON ACCESS AND
EQUITY IN FINANCING PUBLIC SECONDARY SCHOOL
EDUCATION IN SIAYA COUNTY, KENYA**

BY

OCHIENG OKETCH DICKENS

**A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION
IN PLANNING AND ECONOMICS**

**DEPARTMENT OF EDUCATIONAL MANAGEMENT AND
FOUNDATIONS**

MASENO UNIVERSITY

© 2019

DECLARATION

Declaration by the student

This thesis is my original work and has not been presented in any other university for a degree.

Proposed by:

Signed.....Date

OCHIENG OKETCH DICKENS

PG/MED/00061/2013

Declaration by the supervisors

This thesis has been submitted for examination with our approval as University supervisors.

Supervisors.

Signed.....Date

REV. DR. JULIUS GOGO

Department of Educational Management and Foundations

MASENO UNIVERSITY

Signed..... Date.....

DR. JAMES SIKA

Department of Educational Management and Foundations

MASENO UNIVERSITY

ACKNOWLEDGEMENT

First of all, I thank the Almighty God for His Grace and Mercy that have been sufficient for me during the studying and research period. My sincere gratitude goes to my supervisors; Rev. Dr. Julius Gogo and Dr. Sika James for their dedication, unwavering support and tireless efforts as well as their positive criticisms and continuous prompt reading and correction of my drafts. Special thanks goes to the Departmental chair Dr. Olel Maureen who has been a source of inspiration during the studies. I wish to appreciate all my lecturers in the Department of Educational Foundation without whom I could not have acquired this knowledge. Special thanks goes to my dear wife Beryl Oyugi and loving daughter Marvelle M. Zawadi for their physical and emotional support throughout the entire process. May I also thank all my colleagues who were always present in time of need. May God bless all of you abundantly.

DEDICATION

This thesis is dedicated to my loving wife Beryl Oyugi and loving daughter Zawadi Miswa for the encouragement and support all through this course.

ABSTRACT

Globally, there exist bursary schemes that are in place to enhance access and equity in the provision of education to the disadvantaged. In Kenya, there have been bursary schemes that enhances access and equity in the provision of secondary school education. With Siaya County's 16% of the population having secondary school education, below the neighbouring Kisumu county's 25%, Vihiga county's 20% and Kakamega county's 19%, coupled with inequity in bursary distribution, the County Government of Siaya came up with Siaya County Education Bursary Fund (SCEBF) to improve access and equity in the acquisition of secondary school education. The purpose of the study was to examine the contribution of County Bursary Fund on Access and Equity in Financing Public Secondary School Education in Siaya County. Objectives of the study were; to determine the award of Siaya County Education Bursary Fund to the needy secondary school students in Siaya County, establish extent to which bursary allocation to the recipient is equitably distributed in Siaya County and to determine access rate in secondary school education in the county after the establishment of the Fund. Lorenz Curve and Gini-coefficients were used as tools for determining inequalities in SCEBF allocations. The theoretical framework guiding the study was based on the socialist economics theory of Louis Blanc that aims to redistribute income to create equality of well-being. Descriptive survey and correlational research designs were used in the study. The study population was 204 secondary schools with 204 principals, 11,200 student beneficiaries of the scheme, 30 Ward Administrators and 1 County Executive Committee Member for Education. A third of the principals' population which is 68 secondary school principals and 425 students sampled using Yamane's formular formed the study sample. These were chosen through stratified random sampling to represent all the county wards and different school categories. Saturated sampling was used to sample County Executive Committee Member for Education and Ward Administrators. Questionnaires were used to collect data from principals and students while interview schedule was used to collect data from County Executive Committee Member for Education and Ward Administrators. Reliability of the instruments was established by test-retest method and a coefficient index of 0.8 was accepted, content validity of the instruments was ascertained by three experts in the area within the department. Quantitative data was analysed using descriptive statistics of percentage, means and frequency counts, while qualitative data was analysed on an ongoing process as themes and sub-themes emerged. The researcher established that Siaya County Education Bursary Fund benefits majority of the needy cases as it is allocated based on the need of applicants, however, there was unequitable distribution of the bursary fund depicted by the Gini Coefficient of 0.39 due to political influence and inadequate funds. The fund aided to improve access to secondary school by 31.8%. The researcher recommends that; more funds should be allocated to the county education bursaries to ensure that all needy students receive the fund to cater for their education and proper mechanism free from corruption and nepotism should be established for equitable distribution of funds. The researcher suggest that a replica of the study should be carried out in higher economic potential areas and that research on the influence of Siaya County Education Bursary Fund on students' participation in education should be conducted.

Table of Contents

DECLARATION	ii
ACKNOWLEDGEMENT	iii
DEDICATION.....	iv
ABSTRACT.....	v
LIST OF ACRONYMS	viii
LIST OF TABLES	x
LIST OF FIGURES	xi
LIST OF APPENDICES.....	xii
CHAPTER ONE: INTRODUCTION	1
1.1 Background to the Study.....	1
1.2 Statement of the Problem.....	9
1.3 Purpose of the Study	10
1.4 Objectives of the Study.....	10
1.5 Research Questions	10
1.6 Assumptions of the Study	11
1.7 Significance of the Study	11
1.8 Scope of the Study	11
1.9 Limitations of the study	12
1.10 Theoretical Framework.....	12
1.11 Definition of key Operational Terms	14
CHAPTER TWO: LITERATURE REVIEW.....	16
2.1 Introduction.....	16
2.2 Awarding Bursaries to secondary school students.....	16
2.3. Equity in Distribution of Educational Bursaries	22
2.4 Educational Bursaries and access to secondary school education.	27
CHAPTER THREE: RESEARCH METHODOLOGY	33
3.1 Introduction.....	33
3.2 Research Design.....	33
3.3 Area of Study	33
3.4 Study Population.....	34
3.5 Sample Size and Sampling Techniques	34
3.6 Research Instruments.....	35

3.6.1 Questionnaires for Principals	35
3.6.2 Questionnaires for Students	36
3.6.3 Interview Schedule.....	36
3.6.4 Document Anaysis Guide	36
3.7. Validity of Instruments	36
3.8. Reliability of Instruments	37
3.9. Data collection Procedures	37
3.10. Data Analysis	38
3.11. Ethical Considerations and Informed Consent	39
CHAPTER FOUR: RESULTS AND DISCUSSION	40
4.1 Introduction.....	40
4.2 Demographic Characteristics of the Respondents.	41
4.2.1 Categories of schools	42
4.2.2. Type of school.....	43
4.2.3. Students Gender	44
4.2.4 Distribution of Bursary to the Receptient by Form.....	45
4.2.5 Socio-Economic Background of the students	46
4.3 Determination of the award of SCEBF to the needy secondary school students...49	
in Siaya County.....	49
4.3.1 Amount of money schools received from SCEBF between 2013 and 2017.....	49
4.3.2 Sufficiency of SCEBF.....	52
4.3.3 Number of meriting cases for bursary against number of recipients	53
4.4 Extent to which SCEBF allocation to the recipient is equitably distributed in	54
Siaya County.....	54
4.5.1 Influence of SCEBF on access to secondary education.....	69
4.5.2 Students' responses on being sent home for fees.....	70
4.5.3 Students responses on applying for SCEBF	71
4.5.4 Number of SCEBF recipient drop outs between 2013 and 2017	72
CHAPTER FIVE:SUMMARY, CONCLUSION AND RECOMMENDATIONS	76
5.1. Introduction.....	76
5.2. Summary of the study	76
5.2.1 Determine the award of SCEBF to the needy secondary school Students in	76
Siaya County.....	76

5.2.2 Establish the extent to which SCEBF allocation to the recipient is equitably....	77
distributed in Siaya County.....	77
5.2.3 Determine the access rate in secondary school education in Siaya county	77
after the establishment of SCEBF.....	77
5.3 Conclusions.....	78
5.3.1 Determine the award of SCEBF to the needy secondary school Students in	78
Siaya County.....	78
5.3.2 Establish the extent to which SCEBF allocation to the recipient is equitably....	78
distributed in Siaya County.....	78
5.3.3 Determine the access rate in secondary school education in Siaya county	79
after the establishment of SCEBF.....	79
5.4. Recommendations.....	79
5.5. Suggestions for further study	80
REFERENCES.....	81

LIST OF ACRONYMS

ASAL	Arid and Semi-Arid Lands.
CBF	Constituency Bursary Fund.
CDF	Constituency Development Fund.
CECM	County Executive Committee Member.
FPE	Free Primary Education.
GER	Gross Enrolment Ratio
GOK	Government of Kenya
MDGs	Millennium Development Goals
MoE	Ministry of Education
MOEST	Ministry of Education Science and Technology
NCLB	No Child Left Behind
ROK	Republic of Kenya
SCEBF	Siaya County Education Bursary Fund.

LIST OF TABLES

Table	Page
Table 4.1 Response rate.....	40
Table 4.2 Student family status.....	46
Table 4.3 Payer of fees.....	47
Table 4.4 Occupation of payers of fees.....	47
Table 4.5 Highest level of education of fee payers.....	48
Table 4.6 Amount of money schools received from SCEBF from 2013-2017.....	50
Table 4.7 Amount of money student received from SCEBF from 2013-2017.....	51
Table 4.8 Sufficiency of SCEBF.....	52
Table 4.9 Number of meriting cases for SCEBF against the recepient.....	53
Table 4.10 Trends of SCEBF allocation.....	55
Table 4.11 Values of cummmulative percentages for x and y axes for lorenz curve.....	56
Table 4.12 Correlational matrix between economic background and SCEBF allocation.....	67
Table 4.13 Effects of economic background on SCEBF distibuted.....	68
Table 4.14 Amount of SCEBF distibuributed.....	68
Table 4.15 Student enrolment between 2013-2017.....	69
Table 4.16 Studen response on being sent home for fee.....	71
Table 4.17 Student response on applying for SCEBF.....	72
Table 4.18 Number of SCEBF recepient drop out between 2013-2017.....	73
Table 4.19 Effects on SCEBF allocation on access to secondary school allocation.....	74
Table 4.20 Summary model on effect of SCEBF allocation on access secondary school education.....	74

LIST OF FIGURES

Figure	Page
Figure 1.1 Lorenz curve.....	13
Figure 4.1 Categories of schools.....	42
Figure 4.2 Type of school.....	43
Figure 4.3 Gender of students.....	44
Figure 4.4 Distribution of Bursary to the Reciepiant by Form.....	45
Figure 4.5 Lorenz Curve and Gini Coefficient for the year 2013.....	57
Figure 4.6 Lorenz curve 2014 and Gini Coefficient for the year 2014.....	59
Figure 4.7 Lorenz curve 2015 and Gini Coefficient for the year 2015.....	61
Figure 4.8 Lorenz curve 2016 and Gini Coefficien for the year 2016.....	63
Figure 4.9 Lorenz curve 2013-2016 and Gini Coefficient between the year 2013-2016.....	65

LIST OF APPENDICES

Appendix	Page
Appendix A: Principals' Questionnaire	89
Appendix B. Students Questionnaire.....	94
Appendix C: Interview Schedule for County Executive Committee Member for Education And Ward Administrators.....	98
Appendix D. Document Analysis Guide.....	99
Appendix E. Key to score codes for Socio Economic Background.....	100
Appendix F. Siaya County Map.....	101
Appendix G: Research Permit.....	102

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Secondary school bursary scheme was an initiative of the government aimed at helping students from poor backgrounds to obtain education. The scheme also aimed at ensuring that students are retained in school after enrolment. Non completion of secondary schooling continues to be a matter of concern for policy makers and practioneers worldwide (Gray et al, 2009). According to World Bank (1997), expenditure on education in the world shows that participation in education by the poor families mainly in developing countries is affected by cost. It shows that high cost of secondary education reduces the probability of families enrolling their children in schools. The same World Bank report indicates that children of parents with meager income hardly completed the secondary school cycle due to their inability to pay for secondary education.

According to Armstrong and Allan (2009), the demand for schooling is influenced by economic, political, social, and cultural factors. Governments spend a significant part of its budget resources on education. While such outlays have led to a tremendous expansion on schooling, they have not reduced the level of disadvantage for many groups, especially those residing in rural areas, including poor people, women, ethnic or religious minorities and indigenious peoples.

In UK, Smith (2006, as cited by Opon, 2007) argued that the complicated system of bursaries, grants and fees is no doubt confusing many students and their parents and is clearly

not working and that some amount totaling to about 240 million pounds in bursaries that should have gone to students from disadvantaged group was left unclaimed since students were simply not aware of what was available.

In South Africa, user charges are identified as a barrier to education (Veriava, 2005). The South Africa Schools Act provides that majority of parents at a public school may determine whether or not school fees are charged and amount to be paid. However, exemption exists for those who cannot afford to pay; exemption is extended to parents whose incomes are less than 30 times but not more than 10 times the amount of fees.

In Malawi, for one to benefit under the MoEST bursary scheme, the expected beneficiary should be genuinely needy and already selected to a secondary school, in addition, one should be well behaved, not recipient of another scholarship, should have positive attitude towards education and should have completed a bursary application form (NOVOC, 2009). These are the policy guidelines that guide the provision of bursary schemes. This ensures that students are retained in the respective schools.

From 2003, the Government of Kenya started channeling bursaries to constituencies through Constituency Development Fund with an aim of reaching the needy students. Here, Constituency Bursary Committee was established and charged with the responsibility of giving bursaries to needy students. Oyugi (2010), on a study of Public Expenditure Tracking of Bursary Schemes in Kenya, remarks that the major objective of the bursary scheme is to enable children from poor families' access education. However, there is no consistency in supporting children from poor families. This is because students seeking for bursary funding from the secondary education bursary fund are not guaranteed continuous funding to

completion of high school education. These studies addressed the rationale for choosing needy students to be awarded bursaries, this needs to be investigated further to ensure that only needy students benefit from the bursary scheme especially SCEBF which is an objective in this study.

In USA, different states allocate different percentages to the educational funding, State of Illinois for example, provides 33% of the total education funding (US General Accounting Office (GAO),1997). A report by US General Accounting Office in 1997 revealed that average school in wealthy districts in USA received 24% more funding than an average school in a poor district.

In most countries in Sub-Saharan Africa, secondary education benefits the better off urban groups of society but remains largely inaccessible for rural population, with girls at a particular disadvantage. In Malawi, the government bursary scheme does not sufficiently address students' needs at the secondary school level as few Malawians and district level employees are aware of the program and the requirement of the bursary process, bursary funding is extremely limited and varies by district (World Bank, 2006).

In Zambia and Malawi, studies show that close to 70% of secondary school students are entitled to bursary schemes which are supposed to cover 75% tuition fees for most beneficiaries and up to 100% for vulnerable groups such as double orphans. Bursary schemes are also favored to improve retention of girls in the schools, (Sutherland-Addy, 2008). Even though bursary schemes are designed to improve retention of students in public secondary schools, some students drop out of school because of extreme poverty levels which the scheme does not address like provision of uniform and other personal effects.

The 1961 Conference of African State on Development of Education in Africa held in Addis-Ababa Ethiopia stressed on the need for Africans to prioritize education as a means of achieving their socio-economic development and independence (UNESCO, 1990). The United Nations Convention on the Rights of the Child to which Kenya is a signatory provides for education as a basic right to every child and where no child should be discriminated, marginalized or excluded. Again the Millennium Development Goals (MDGs) advocates for Universal Education and Education For All (EFA) by 2015. Goal for industrialization by 2020 and Vision 2030 puts education as a major pillar hence calls for intensified and deliberate efforts aimed at increasing access, equity and improve relevance of education at all levels. These studies have addressed the continued inequity in the provision of education showing how this hindered access to education especially for the vulnerable group. This was looked at in this study in relation to SCEBF that was put in place to promote equity in the provision of secondary school education in Siaya County.

In America, there was No Child Left Behind Act (NCLB) in 2001 passed by the congress. This was a re-authorization of the elementary and secondary education act of 1965 and it has since become the focal point of education policy. According to former president George W. Bush in 2004, these reforms expressed his deep belief in US public schools and character of every child, from every background in every part of America. The essence of NCLB was to widen access especially for those who have been ostracized by virtue of their socio-economic status or race. NCLB failed to provide real access to minority students' reason being poor funding. Participation of secondary education with a cost equivalent of US \$ 200-300 represents a heavy financial burden even for middle income families. In many countries fees and private cost often make it impossible in the absence of affectively targeted financial

support for the few poor children that complete primary education to enroll in secondary school further skewing participation towards wealthy households (Lewin, 2002).

In Burkina Faso, education was modeled after that of France, Secondary admission for long was restricted to those who passed a standard entrance examination rationing, the number was not necessary as very few completed the secondary tier. Internal efficiency of the schools was disappointing as repeaters were quite high at all tiers; dropout rate was illustrated by fewer first grade entries. High unit cost in education per student constrained resources and made education available to limited eligible children. Access to education was more available to those living in urban locations and unequally distributed between boys and girls due to poverty hence schools were internally and externally inefficient.

Maeke (2003) looked at the problem of access and school dropout in Mali and found out that the low socio economic levels of parents were among the factors that hindered access and further led to drop out among the few students who had managed to enroll in schools. A study carried out by Ayiga (1997), looked at ‘‘Causes of Low Enrollment and high dropout rates in primary education in Uganda’’ and found out that lack of school fees was among the major factors that hindered access to schooling.

Uganda became the first country in Sub-Saharan Africa to introduce universal secondary education in 2007 coming 10 years after it introduced universal primary education. According to the Government of Uganda (2010) at that time, a United Nations (UN) report said Africa had the worst secondary school enrolment rates in the world with only 34% of secondary school-age learners enrolling in class. Girls and poorer young people comprised the bulk of those locked out of school by financial and cultural constraints.

Njeru and Orodho (2003) observed that the aim of the bursary scheme in secondary school had the objective of enhancing access to and ensure high quality secondary education for all Kenyans particularly the poor and vulnerable groups as well as the girl child thus reducing the existing inequalities. The study identified major weaknesses of the secondary school bursary scheme as lack of transparency, inadequacy of funds, fluctuations of the amount allocated, disbursement delays, lack of uniform criteria for identification of the poor students and inadequate equity consideration.

Nyakeri (2011) carried out a study on access to education but tied it with Subsidized Secondary School Education. The study specifically looked at the Effects of Subsidized Secondary School Education on Access and Participation in Manga District, Nyamira County. The study revealed that despite the introduction of Subsidized Secondary Education, many school going children remained out of school as there was decline in enrollment in Manga District after 2009. These studies looked at access but through Subsidized Secondary Education and recommended that the government should consider allocating more funds on its annual budget to put up more facilities and improve on access to secondary education. It was necessary to look for an alternative financing method of boosting secondary school education in order to promote access and SCEBF was that alternative. This study therefore, looked at access to secondary education in public schools but tied it to County Bursary Fund using Siaya County as the site for the study.

Due to the rising cost of living, many students from poor families fail to access and drop out of their secondary education. Even with the subsidized secondary education in Kenya, the operational cost has remained high with an average cost of boarding secondary schools at Ksh.53,553, Special school Ksh.37,210 and day secondary school at Ksh.9,374 which is to be

paid in the ratio of 50:30:20 in the three terms (MoEST, 2015), locking out many students from poor backgrounds.

Government funding programmes have made considerable contribution to transition from primary to secondary school. It is impressive that the rate has steadily increased from 45.8% in 2003 to 59.9% in 2008 and over 70% in 2009 (Republic of Kenya, 2010), 72% in 2010 and 76.8% in 2013 (MoE, 2014). The greatest increment was realized between 2008 and 2010 with the introduction of tuition free secondary education in 2008, and increase in bursary allocations.

The introduction of tuition free secondary education saw an increase by 15% which raised enrolment from 1,180,267 in 2007 to 1,382,211 in 2008 (Republic of Kenya, 2009). However, despite the introduction of free day secondary education and bursary allocation, access and participation at secondary level has remained proportionately low relative to primary level participation in Kenya. For instance, in 2004, enrolment at Early Childhood Education level, primary and secondary levels stood at 1,627,721 (16.4%), 7,394,763 (74.3%) and 926,149 (9.3%) respectively (MoE, 2005). In 2009, the enrolment was approximately 2.2 million (16%) at Early Childhood Education, 9.4 million (70%) primary school and 1.8 million (13%) secondary school (2009 Census Report). Analysis of the 2009 census data reveals that approximately 6.7 million children of school going age were out of school. Of these, 2.1 million (58%) were of pre-primary age, 1.9 million (23%) primary and 2.7 million (76%) secondary school age (Government of Kenya, 2009).

While the increased availability of bursaries (e.g. from the CDF) have provided many families with financial assistance, the pressing burden of secondary school fees prevent many

students from attending secondary schools. These financial barriers are especially seen among the female and vulnerable groups like the orphans and the poor.

With the introduction of devolved government and commencement of operation in 2013 under the guidance of the Transitional Authority of Kenya, there was an establishment of a fund to be known as the County Bursary Fund. The fund shall consist of monies of an amount of not less than 1.5 percent of the county government budget in every financial year as it may be appropriated by the County Assembly and shall be deposited into the fund at the first quarter of every financial year, (County Government Act, 2012). To improve the operations of the bursary scheme, Siaya County Education Bursary Fund Act No 2 of 2016 was enacted; it is an act of the County Assembly of Siaya that provides for the establishment of County Bursary Fund that guides management, governance and administration of the fund and for the connected purposes.

Several Counties have hence endeavoured to promote access and equity in the provision of secondary school education through bursaries. Vihiga county's Ksh. 125 million for bursary was disbursed to its' 25 county wards each ward getting Ksh. 3million benefiting 26,000 needy students in the county, (Vihiga County Records, 2015) and Kisumu County disbursed Ksh. 2 million equally to all the 35 county wards as bursaries in 2016 (Kisumu county Records, 2016). Siaya County has 16% of the population having secondary school level of education below Kisumu county's 25%, Kakamega county's 19% and Vihiga county's 20%, (KNBS, 2013) hence the need to ensure improvement of access to secondary school education in the county, one such way is through educational bursaries.

Siaya county had set aside Ksh. 30 million for the educational bursaries in the financial year 2013/14 that benefited 4,800 students in the county and Ksh. 49.8 million benefiting 6,400 students in the county in 2014/15 financial year. In this disbursements, the funds were equally distributed in all the thirty county wards in the county without considering the ward's need level. There is need, therefore, to assess the contribution of SCEBF against one of its main objectives "to ensure access and equity in the provision of education ."(Siaya County Social Audit Report, 2014).

1.2 Statement of the Problem

Secondary school education attracts various costs including tuition and boarding fee paid for by parents. Recent studies done indicates that school fees was the main reason why most of the secondary going age children were not in school. In the year 2000, the Ministry of Education issued fee guidelines for all public secondary schools in Kenya. However, the guidelines were not followed by some principals who introduced their own charges. The introduction of free secondary education in 2008 was a blessing to many parents since the government decided to pay ksh 10,265 per year for each student, it had subsequently been increased to Ksh. 12,870 per student in 2015. However, the subsidy did not cover boarding expenditure, uniform among others hence making secondary education unaffordable to the poor families.

In Siaya county where 57.9% of the population live below poverty line and only 16% of the population having secondary school education, coupled with inequity in bursary allocation, access and equity in the provision of secondary school education hence remains a great concern especially among those families from poor background despite the existence of some bursary schemes. To help improve access and equity in the provision of secondary school

education, the County Government of Siaya in its annual budget continued to give bursaries to needy secondary school students. The amount given for bursaries are equally distributed in the 30 county wards without any consideration in terms of county ward's level of need. It is on this background that a study on the contribution of county bursary fund on access and equity in financing secondary school education in Siaya county was sought to be established.

1.3 Purpose of the Study

The purpose of the study was to examine the Contribution of County Education Bursary Fund on Access and Equity in Financing Public Secondary School Education in Siaya County.

1.4 Objectives of the Study

The research was guided by the following specific objectives;

- i. To determine the amount of money awarded by Siaya County Education Bursary Fund to the needy secondary school students in Siaya County;
- ii. Establish the extent to which Siaya County Education Bursary Fund allocation to the recipient is equitably distributed in Siaya County; and
- iii. To determine the access rate in secondary school education in Siaya county after the establishment of Siaya County Education Bursary Fund

1.5 Research Questions

- (i) What determined the award of Siaya County Education Bursary Fund to the needy secondary school students in Siaya county?
- (ii) What was the extent to which Siaya County Education Bursary Fund allocation to the recipient was equitably distributed in Siaya County?

(iii) What was the access rate in secondary school education in Siaya county after the establishment of Education Bursary Fund?

1.6 Assumptions of the Study

The study was based on the following assumptions:

- i. A student's participation in school was dependent on his or her ability to meet the school fees needs of public secondary school in any given year.
- ii. County education bursary was only given to needy students.
- iii. Responses given by the respondents were not biased.

1.7 Significance of the Study

The findings of this study may contribute to the understanding of the contribution of SCEBF in addressing the issue of equity and access to public secondary schools in Siaya County.

The findings may also provide relevant information for policy discussion on the issue of bursary schemes in financing of secondary education in the country. The study will inform the review of existing policies regarding the criteria for SCEBF allocation in the county so as to enhance equitable allocation and access to secondary school education. It may also provide suggestions for further research to future scholars interested in the same field.

1.8 Scope of the Study

The study covered only public secondary schools across the 30 county wards in Siaya County. It was limited to the period between 2013-2017. Equity was limited to socio-economic background of the students from different county wards in secondary schools in Siaya County regarding access to secondary education.

1.9 Limitations of the study

Some members of the bursary committee feared giving information because of internal dealings for political reasons. To obtain reliable information, respondent were assured of confidentiality in data collection. There were also some delay in returning questionnaire which inconvenienced data analysis on time.

1.10 Theoretical Framework

The study was guided by theory of Socialist economics of education, pronounced by a French writer and historian Louis Blanc (Colander, 1994). This theory underlines the need to create an economy that redistributes income from the rich to the poor, so as to create equality of well-being (Baumol & Blinder, 1979). SCEBF will then be in place to aid the needy secondary school students in the county be in school just like other students from financially stable backgrounds.

Lorenz curve, which is the geometric representation of the distribution of income among families in a given time, was used to calculate equality in the distribution of income. The Lorenz curve shows actual quantitative relationship between the percentage income of recipients and the percentage of the total income they did in fact receive during a given period (Todaro & Smith, 2006). In the study, Lorenz curve measured the cumulative percentage of SCEBF allocation to the poorest students and to the richest with male and female on the horizontal axis while cumulative percentage of SCEBF allocation will be plotted on the vertical axis. SCEBF is perceived as a social input whose aim is to equalize educational opportunities among students from low socio-economic status. Figure below illustrates these.

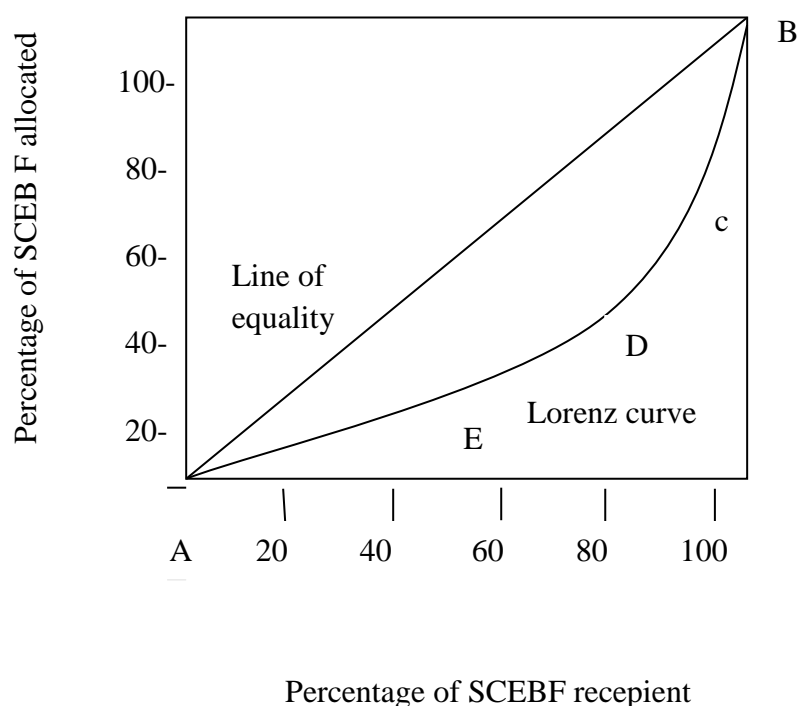


Figure 1.1 Lorenz curve

Adopted from Todaro & Smith (2006).

The distribution of SCEBF among recipients is shown on the curve of concentration (Lorenz curve). The amount of funds given to students was compared with the level of need of those students to ascertain whether the distribution was equitable. Actual share of every group of recipients was compared with the amount that group received if the allocation was equitable. Perfect distribution gave a straight diagonal line, shown by point AB. Inequalities was depicted by the deviation from the line of concentration as depicted by line AEDCB. The bigger the area below the parity line, the more unequal the distribution of the SCEBF to students. Gini coefficient was used to calculate the ratio of the area between the diagonal and the Lorenz curve divided by the area of the half square in which the curve lies. Gini coefficient are aggregate inequality measure and vary from 0 (perfect equality) to 1 (perfect inequality). Gini coefficient for countries with highly unequal income distributions typically

lies between 0.50 and 0.70, while for countries with relatively equitable distribution lies between 0.20 to 0.35 (Todaro & Smith, 2006). The Gini coefficient for Kenya is 0.445 (Society for International Development, 2013). This study endeavoured to establish where the Gini coefficient for SCEBF allocation lies. The Gross Enrolment Rate (GER) and Net Enrolment Rate (NER) in the county before the introduction of SCEBF and after its' introduction was looked at to establish if the bursary fund had got a significant change on access rate to secondary school education in Siaya County.

1.11 Defination of key Operational Terms

Access:	Refers to gaining admission into a secondary school of a cohort of qualified students with varied regional, ethnic, gender and economic background.
Bursary :	Amount awarded to a student to supplement fee payment.
Contribution:	Any valuable and quantifiable effort directed towards improving access rate insecondary school.
Equality:	Giving same share of resources irrespective of the level of need of recipient.
Equity:	Giving equal educational opportunity to all students to access education based on the level of need.
Gini coefficient:	Ratio of equality as advanced by an Italian statistician called Gini who formulated it in 1912.
Lorenz curve-:	A line showing equality in income distribution among different groups in the society according to the level of need.
Needy :	Deserving cases especially the poor and orphans.

Public secondary school: Refers to those secondary schools that are maintained or assisted out of public funds according to Basic Education Act 2013 of the laws of Kenya

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter, literature pertaining the following topics were reviewed: Awarding bursaries to secondary school students, equitable distribution of educational bursaries and education bursary and access to secondary school education.

2.2 Awarding Bursaries to secondary school students

The evergrowing demand for education, the resultant expansion of education system and the rising cost of education due to need for more sophisticated equipment have led to huge increase in education all over the world (UNESCO, 2007). Most countries spend more than 30 percent of their recurrent expenditure of their annual budget on education. According to World Bank, secondary school is the most expensive relative to Gross National Product Per capital (World Bank, 2007). The importance of secondary education globally has grown considerably especially in the developing world countries with the success of Universal Primary Education.

Financing of education, according to Psachropoulos and Woodhall, (1985) and Coombs (1968) is done through direct funding by the government through taxation, through school fees where beneficiaries pay for education subsidies, loans, grants from donors, scholarships, the community, employer scheme, cost sharing and through bursary. Central government and Local Authorities, which constitute the public sector are the major financiers of education in the developed countries, however, a state controlled and subsidized private sector are emerging as one of the contributors to the volume of educational resources (Bray, 2000).

In Britain, any award made to students at early secondary school was not necessarily to continue to the A-level stage. There were two types of bursary awarded by institutions (such as universities). The first is a means-tested bursary which is available for all students whose parents earn under a threshold value per annum. It was often given out using a sliding scale, with people at the lowest end of the scale receiving a full bursary and the monetary award decreasing in value with proportion to the parental earnings (Siringi, 2006).

Studies done in the United States of America reveal the availability of bursaries, ‘Pell Grants’ are subsidies awarded to students on the basis of need as determined by their own and parents income and assets. It is given an entitlement without regard to ability, achievement, the particular institution attended or the programme of study. The actual award depends on the amount appropriated by the congress each year and the number of needs of potential recipients. Participation of secondary education with a cost equivalent of US \$ 200-300 represents a heavy financial burden even for middle income families. In many countries, fees and private costs often make it impossible in the absence of affectively targeted financial support for the few poor children that complete primary education to enroll in secondary school further skewing participation towards wealthy households (Lewin, 2005).

In the Federal Republic of Germany, Bursary takes the form of ‘BafoG’ (sic). This is subsidized loan to students (Johnstone 1986). The government supports the students at both upper secondary and higher educational levels. The government must provide funds for all who meet the award criteria. The loans carry enormous subsidy for all borrowers who have its use for 20 or more years at zero interest.

A survey by the government in Argentina in 1975 revealed that government subsidies range from 45 to 92 percent of total cost pupil in primary schools are between 31 to 96 percent in private secondary schools (IDB 1978:158). In Ecuador government subsidies are in form of fees and take only 3 percent. Other sources of subsidies are donation or endowments. In Bolivia for instance (Latin America) this sources provide for 11 percent of the income of private schools (IDB, 1978).

In Singapore, the government through the Ministry of education has a bursary scheme in place known as Edusave Merit Bursary that is meant for students whose household income is less than \$4000 a month. They provide \$300 for secondary 1 to 5. Eligibility is for students who are already in secondary school and whose performance is good that is 25% in a stream (M.O.E, 2012). This goes a long way to retain students who could have otherwise dropped due to lack of school fees.

In South Africa, user charges are identified as a barrier to education (Veriava, 2005). The South Africa Schools Act provides that majority of parents at a public school may determine whether or not school fees are charged and amount to be paid. However, exemption exists for those who cannot afford to pay; exemption is extended to parents whose incomes are less than 30 times but not more than 10 times the amount of fees. In Malawi, for one to benefit under the MoEST bursary scheme, the expected beneficiary should be genuinely needy and already selected to a secondary school, in addition one should be well behaved, not recipient of another scholarship, should have positive attitude towards education and should have completed a bursary application form (NOVOC, 2009). This is the policy guidelines that guide the provision of bursary schemes. This ensures that students are retained in the respective schools.

In an effort to enhance transition from the primary schools to secondary schools, the government of Kenya introduced the bursary scheme for secondary schools during 1993/1994 financial year. The bursary targeted the vulnerable groups namely; Orphans, girls, children from slums and the poor in high potential areas and in arid and semi-arid lands (ASALS) districts. The prime purpose of the bursary scheme at this time was to cushion households from the rising impacts of poverty, unstable economy and the devastating effects of the HIV/AIDS pandemic (Nduva, 2004). Under this programme, bursaries were administered from the ministry of education headquarters and were hampered by many problems hence not effective. The ministry of education would then send money to the various district headquarters for disbursement. The respective District Education Boards (DEB) then made allocations and disbursed the funds to the various schools, based on the level of financial need prevailing in the student body. This method of bursary allocation was severally faulted for inordinate bureaucracy and for perpetuating unfairness by giving bursaries to the undeserving students and to those that were well connected (Odalo, 2000).

A study carried out by Odebero (2002) on bursary allocation in Busia district revealed that, the bursary allocation in Busia district was not equitable. According to this study, recipients from high socio-economic backgrounds received more bursary support than their counterparts from the humble backgrounds. This anomaly was attributed to the flawed criteria of selecting the bursary recipients. Complaints raised against the foregoing style of bursary allocation, prompted the government of Kenya to introduce the Constituency Bursary Fund (CBF) in 2003.

The constituency bursary fund was established by the National Rainbow Coalition (NARC) government of Kenya through an Act of Parliament. The CBF strategy was in line with the

government's policy on devolution, decentralization of power and empowerment of local communities (Kimenyi, 2005). Under this new scheme, the central government makes an annual budgetary allocation to each constituency. The CBF mandates members of the community, through a committee of officials to select recipients of the fund. The rationale for this arrangement is that, members of the community know best those in their midst who deserve financial support.

The fund is administered under the guidelines of the ministry of education. These guidelines specify the application procedures, evaluation criteria and allocation ceilings. Contrary to the high expectations about the constituency bursary fund, complaints abound about its effectiveness; Onyango and Njue (2004) observe that, the fund was not serving its purpose. They posit that, since the bursary fund is under the direct control of members of parliament, it has been transformed into a political instrument, thus compromising its effectiveness in many ways.

Allocation of constituency bursaries to schools has not remained constant, it has been varying with time and funds have been noted not to reach the beneficiaries at the time expected. The constituency bursary fund committee comprises individuals or member appointed by existing members of parliament as the fund is closely tied to CDF that is greatly monitored by the members of parliament. According to Lumili (2009), students need to be informed on the bursary products available, who qualifies and the process of application. At the same time, bursaries may be awarded in addition to scholarships where financial need is demonstrated and the prospective student would otherwise be unable to enter the school. To obtain such a bursary, it is customary for parents to be asked by the school's bursar to fill in an application form, giving details of their financial circumstances, supported by documentary evidence,

including capital assets. The application will be considered by the bursary committee in accordance with its bursary policy. He adds that the award often remains in force until the student has to sit the next relevant public examination. Most schools review bursaries awards annually to ensure that the justification for an award remains.

Youth Initiative Kenya (2011) in a study titled Gender Responsive Budgeting assessed that there has been constant fluctuations in the amount of bursary finances allocated to the bursary fund nationally over time. Overall, there has been a general decline in the amounts allocated for the fund by the treasury since 2006. Notably, even after an initial allocation of KES 1.3 billion to the fund during the 2011/12 FY, the treasury ended up reallocating KES 0.4 billion away from the SEBF leaving only KES 0.9 billion for the fund. These trends only intensify the demand and competition for the fund with the net result being that more and more children from poor households seeking secondary education will remain excluded even after they had initial bursary resulting in low retention. It further states that for purely practical and circumstantial reasons, the constituency bursary committees have had to operate outside the policy guidelines. This mode of operation has often distorted the intended retention outcomes of the fund.

A study carried out by KIPPRA (2007) on the accountability and performance of the constituency bursary fund revealed that, only 15.7% of the respondents rated its accountability as good. Majority of the respondents expressed high levels of distrust in the CBF managers. According to Mwangi (2006), giving out money through the constituency is fraught with pitfalls. To him, students who deserve never get the money because of political interference. He further observes that, the process of sending money from the central

government to the constituencies then to schools takes long. This hence has not fully answered the problem of access and equity in the provision of secondary education in Kenya. This study finding concurs with a study done by Odundo and Rambo (2006), who pointed out that there were many cases of needy applicants in schools who have never received any bursary while a significant number of the non-needy always awarded the bursary. Despite the government efforts through bursaries, inequalities still persist in the provision of education to the citizens. Many governments have taken deliberate efforts to address the problem of access and inequity in secondary schooling but little has been achieved especially in the Developing countries.

The introduction of safety nets, that is, bursary scheme has worked to help promote access and equity in the provision of secondary school education, however, due to some cases of inefficiency and ineffectiveness based on disbursement and allocation anomalies both on the government and those committees entrusted with the management of the fund, it has in some cases failed to serve its purpose. The immediate objective of bursaries on increasing access and equity in the provision of education created concern for the research to be undertaken looking at determination on how beneficiaries of the scheme are selected in Siaya County.

2.3. Equity in Distribution of Educational Bursaries

Equity is a characterised respectful treatment of all people regardless of age, gender, race, religion, life orientation and creed. Equity therefore hinges on equal rights and opportunities (State of Saskatchewan, 1997). Equity in education refers to the way cost and benefit of educational investment are distributed among regions and whether males, females and different social, economic, or ethnic groups have equal facilities (Psacharopoulos & Woodhall, 1985).

Equity and access, according to Stoikov (1970), Coombs (1970) and Psacharopoulos & Woodhall, (1985), is measured in four ways: How educational facilities are distributed among different areas and groups; the distribution of subsidies for education and its impact on cost and benefits to education and subsequent distribution of wealth; ability of education to redistribute wealth, income and opportunities between the rich and the poor; and how effective education is a distributive tool. This study portends that students from poor socio-economic background are needier and therefore needs more allocation of educational resources in terms of bursaries than those from higher socio-economic backgrounds in order to improve their access to secondary school.

In Britain, education up to secondary school level is fully financed by the government. At higher levels, however, cost sharing exists (Moon and Mayes, 1994). At higher levels of education, bursaries are given to needy students at institutional level. Students suffer because the bursary on offer is determined by the strategic priorities and constraints of their place of study rather than their financial needs. Specifically, those institutions with the most students from disadvantaged backgrounds can only provide significant proportion of fee income.

In UK, a key priority of the Government is to eliminate the gap in attainment between those from poorer and more affluent backgrounds and to ensure every young person participates in and benefits from education and training known as YPLA Bursary Scheme. The Government provides funding to tackle the disadvantaged both through the YPLAs funding formula and through support to help young people meet the costs of participating in education and training (YPLA, 2012). This further helps students to be retained in schools. In Mexico, bursary program focuses on the most disadvantaged states. An international evaluation of the project documented that completion rates in project schools increased from 67% in 1994/95 to 80%

in 2000/01, dropout rates declined from 6% to 2% and repetition fell from 10% to 8% (World Bank 2005).

In India, the National Scholarship Scheme has been implemented since 1961. The objective of this Scheme is to provide scholarships to the brilliant but poor students so that they can pursue their studies in spite of poverty. The Scholarship Scheme for Talented Children from Rural Areas for Class VI to XII is an on-going scheme since 1971-72 with the objective to achieve equalization of educational opportunities, and to provide fillip to the development of talent from rural areas by educating talented rural children in good schools. The schemes were implemented as Centrally Sponsored Schemes up to IX Plan. The Department then merged these schemes to form the National Merit Scholarship Scheme for implementing within an approved outlay (Ahmed, 2007). When such schemes are ongoing there is one goal which is the retention of students in schools. In this scheme the parent or guardian has to swear an affidavit to establish that they are genuinely needy.

In 1994, government of China directed bursaries to minority areas for their educational needs. Similarly, the government of Mexico directs bursaries to help indigenous students pay for textbooks and other learning materials. Related to targeted bursaries are school improvement funds, which are used in Armenia, Chile, India, and Paraguay. Such funds are usually provided on a competitive basis to initiatives designed locally to promote increased school participation and autonomy.

World Bank (1994), mentioned that there is a crisis in all parts of the world in the provision of higher education, this is more pronounced in the developing countries where fiscal constraints have influenced many developing countries to implement policies aimed at

supplementing the government efforts, which is mainly through taxes (Bray, 2000). Multilateral organization like UNESCO, World Bank and UNICEF has also contributed significantly to the provision of secondary education, especially in the developing countries. Psacharopoulos and Woodhall (1985) found that in countries like Trinidad and Tobago, Dominicans Republic, Panama and Cuba, 25 to 50 percent of the operating cost in secondary education is borne by the sale of goods produced in the schools.

World conference on education held in Jomtein, Thailand, recommended that additional resources of funding should be mobilized from within and outside government budgets to finance education (UNESCO, 1990). According to World Bank (1995:197), Educational subsidies in Vietnam are such that provision is made for fees to be waived or even halved for a certain group considered to be in need of such waiver. These includes the handicapped students, boarders in minority zones, orphans, children of killed or seriously wounded soldiers and children in mountainous or remote areas.

In Zambia and Malawi, studies show that close to 70% of secondary school students are entitled to bursary schemes which are supposed to cover 75% tuition fees for most beneficiaries and up to 100% for vulnerable groups such as double orphans. Bursary schemes are also favored to improve retention of girls in the schools (Sutherland-Addy, 2008; World Bank 2006). Even though bursary schemes are designed to improve retention of students in public secondary schools some students drop out of school because of extreme poverty levels which the scheme does not address like provision of uniform and other personal effects. In South Africa, schools are compelled to inform parents of the school fee exemption for poor learners. In 2006, the country undertook to develop a frame work which allows disadvantaged schools to receive subsidies if they enrolled non-fee paying learners as the

number of exemptions granted to poor learners at certain schools was becoming a burden to school finances.

Mellen (2004), in a study on the role of government bursary funds in enhancing girl child participation in Nyamira District found that the Ministry of Education bursary had not sustained any girl for four years. She too noted that it had failed to meet the gender equity objective and that boys received slightly higher bursaries than girls. This is contradicted by a study conducted in Kerio-Valley on the usage of CDF (Rono, Milimati & Langat, 2010) that did reveal that there was equity in the distribution of CDF bursary.

Mwaura (2006), in his study on government bursary scheme and its role in enhancing secondary school participation of the poor and the vulnerable learners in Thika District found that the Constituency Bursary Fund was ineffective in that it was inadequate, (thinly spread) unpredictable and very few students had been retained by the fund up to Form Three in 2005. He also observed that the awarding criteria were not very clear especially on how to finally arrive at a student to be awarded a bursary in each category. This is also in line with another study by Otieno (2011) in Nyando District that revealed equitable distribution of CDF and highly unequal distribution of CDF allocation to secondary schools at a gini coefficient of 0.507.

Even though enormous resources are being channeled to schools through government initiatives like pockets of poverty grants, which targets schools in high poverty prevalent regions, Constituency Bursary Fund, laboratory grants and school rehabilitation grants, schools have continued to charge high fees, thus making secondary education to be a preserve for the high and medium income earners.

A number of bursary schemes including MoE Bursary and C.B.F have been rolled out, however, inequity in the disbursement and low access to secondary school education continue to persist. Siaya County came up with an ambitious Bursary Scheme that would see off many students especially the disadvantaged to get opportunity to acquire secondary school education across the county, but how far these has aided to improve equity in the provision of secondary school education among the disadvantaged in Siaya county necessitated the study, specifically looking at the distribution of the fund across all the 30 county wards in Siaya county.

2.4 Educational Bursaries and access to secondary school education.

In America there was No Child Left Behind Act (NCLB) in 2001 passed by the congress. This was a re-authorization of the elementary and secondary education act of 1965 and it has since become the focal point of education policy. According to former president George W. Bush in 2004, these reforms expressed his deep belief in US public schools and character of every child, from every background in every part of America. The essence of NCLB was to widen access especially for those who have been ostracized by virtue of their socio-economic status or race. NCLB failed to provide real access to minority students' reasons being poor funding.

Participation of secondary education with a cost equivalent of US \$ 200-300, represents a heavy financial burden even for middle income families. In many countries, fees and private cost often make it impossible in the absence of effectively targeted financial support for the few poor children who complete primary education to enroll in secondary school further skewing participation towards wealthy households (Lewin, 2002).

Studies by World Bank, (2007) indicate that many World Bank client countries in Latin America and East Asia have shown an increasing interest in expanding and strengthening their secondary education systems though with many challenges. These include lower completion rates for young people from lower income levels. Lack of private resources is a key determinant of access to and completion of secondary education and their being retained in these schools. Direct costs of education represent 22% of per capital household income in Bolivia and 20-30% in china which most households cannot afford. (World Bank, 2007). Education provides gateway for great opportunities in life that can cushion communities against the poverty trap. It grants possibilities for knowledge acquisition to improve well-being including improvement in health, use of appropriate technologies in a highly technology –dependent world and sharing of entrepreneurial skills and hence should be made easily accessible to all including the disadvantaged.

The Secondary Education in Africa (SEIA) initiative conducted a participatory process of analysis, dialogue and reflection in sub- Sahara Africa with conclusion that countries need to address the triple challenge of expanding access, improving quality and ensuring equity in education (Veerspoor, 2007). SEIA also argue that governments in this region need to allocate on average nearly 6% of Gross National Product (GNP) to secondary schools to achieve GER of 85%. Education is a profitable private investment yet many students cannot afford to finance it out of their own family resource (Psacharopolous & Woodhall, 1985).

Governments therefore need to provide funds to support a broad based equitable expansion of secondary education with incentives for private provision and subsidies to disadvantaged students to ensure equality of opportunity and eventually eradicate poverty (Veerpoor, 2007; Psacharopolous & Woodhall, 1985). Ayot and Briggs (1992) identified various student aid

policies including tuition-free schooling, scholarships and bursaries to needy students, student's loan and voucher specifically for education. However, studies on effects of subsidies in Colombia, Malaysia, Kenya and Indonesia all suggest that the methods need to be reappraised since they do not achieve both efficiency and equity objectives (Psacharopolous & Woodhall, 1985).

In Burkina Faso, education is modeled after that of France. Secondary admission for long was restricted to those who passed a standard entrance examination, rationing the number was not necessary as very few completed the secondary tier. Internal efficiency of the schools was disappointing as repeaters were quite high at all tiers; dropout rate was illustrated by fewer first grade entries. High unit cost in education per students constrained resources and made education available to limited eligible children. Access to education was more available to those living in urban locations and unequally distributed between boys and girls due to poverty hence schools were internally and externally inefficient.

Maeke (2003) looked at the problem of access and school dropout in Mali and found out that the low socio economic levels of parents were among the factors that hindered access and further led to dropout among the few students who had managed to enroll in schools. A study carried out by Ayiga (1997), looked at "Causes of Low Enrollment and high dropout rates in primary education in Uganda" and found out that lack of school fees was among the major factors that hindered access to schooling.

While the past decade has seen tremendous increase in primary school access in Kenya, secondary school access remains low. In 2009, the secondary school net enrollment rate was approximately 50% (World Bank, 2009), while the primary-to-secondary school transition

rate was equally low at 55% (MOE, 2010). Despite the recent reductions in secondary school fees, these fees still present a major financial obstacle. The 2005 Kenya Integrated Household budget shows that on average secondary school expenditures accounted for approximately 55% of annual per capita household expenditures. While the increased availability of bursaries (e.g. from the CDF) have provided many families with financial assistance, the pressing burden of secondary school fees prevent many students from attending secondary schools. These financial barriers are especially seen in the case of females and vulnerable groups such as orphans, and the poor.

Ngware, Onsomu, Muthaka and Kosimbei (2006) conducted a study to examine strategies for improving access to secondary education in Kenya. They concluded that persistently low participation rates from low income households indicates that the bursary fund has limited impact on ensuring that the beneficiaries are adequately supported for a full cycle. Consequently, they proposed that the government initiative in decentralizing and reviewing bursary funds management to constituency level should be closely monitored. Clear guidelines should be developed to ensure efficiency and effectiveness in order to increase access to secondary education. Further they suggest that there is no address to income inequalities in the society, and that a special assistance scheme and preferential policies should be developed to target vulnerable groups such as students from marginalized communities, those with special needs, orphaned and vulnerable children.

In other studies carried in Kenya on government bursary by Orodho, Njeru (2003) and Mellen (2004), the results of the studies shows that the government bursary fund is yet to achieve its main objective of ensuring access and quality education. Their studies have evaluated the students' bursary fund scheme and found out that the funds are not effective

generally and are strained with defaults. Mirigat (2003) reports that ‘‘of the richest 20% households, 76% of their children attend school compared to 40% of the poorest 20% households. This means that children from poor households have much lower attendance. The bursary fund allocation levels to beneficiaries is therefore too low to cover the entire fees for those assessed as poor and needy, especially in boarding schools now that the government is implementing a tuition fee waiver for all students in all public schools (IPAR, 2009).

Recent studies in Kenya have looked at equity and efficiency of financing education by the government through local authorities, Kodingo (2006) and through bursary scheme, Odebero (2002). These studies have revealed that many secondary school going children from poor household are not enrolled. Therefore, other sources need to be identified to supplement these sources to improve access. According to the National Development Plan 2002-2008, Republic of Kenya (2003), one of the ways of improving secondary school access was to build more day secondary schools.

A study conducted by Kiage (2003) on impact of cost-sharing policy on secondary education enrolment in Nyamira district revealed that most of the students who leave school prematurely can be attributed to lack of school fees, this he noted accounted for up to 2.638 percent of drop out in schools. A related study conducted in Bungoma district by Wachiye (2005), on equity and access to higher education discovered that access to university education is largely limited to children from medium and higher income groups in the society, this raises the question on how best the children from poor families can be assisted to acquire secondary school education.

Nyakeri (2011) carried out a study on access to education but tied it with Subsidized Secondary School Education. The study specifically looked at the Effects of Subsidized Secondary School Education on Access and Participation in Manga District, Nyamira County. The objectives were to determine the enrolment of students in public day secondary schools before and after implementation of subsidized secondary school education, to identify challenges facing the implementation of Subsidized Secondary Education (SSE) and their solutions and to analyze the effects of SSE. Using the theory of Equal Opportunity and Social Darwinism, the study asserted that the orientation on equality brought about by access and participation in education is determined by the ability of learners to pay the user charges levied by the school or else they drop out of school.

The study revealed that despite the introduction of Subsidized Secondary Education, many school going children remained out of school as there was decline in enrollment in Manga District after 2009. The studies looked at access but through Subsidized Secondary Education and government bursaries and recommended that the government should consider allocating more funds on its annual budget to put up more facilities and improve on access to secondary education. It was necessary to look for an alternative financing method of boosting secondary education in order to promote access and SCEBF was that alternative. This study therefore looked at access to secondary education in public schools but tied it to County Bursary Fund using Siaya County as the site for the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers research design, study area, study population, sample size and sampling techniques, research instruments, validity and reliability of the instruments, data collection procedures, data analysis and ethical considerations and informed consent.

3.2 Research Design

Descriptive survey and correlational research design were adopted. Saunders, Lewis and Thornhill (2007) define research design as a structure of research. It is the glue that holds all the elements in a research project together. It is the major type of discipline research which gives description of the state of affairs as they exist. Orodho (2003), states that descriptive survey is a method of collecting information by interviews or administering a questionnaire to a sample of individuals to determine research statistics of a problem and justify current situation or condition. Descriptive survey design was deemed relevant to the study because the questionnaire constructed helped the researcher to solicit for the desired information. Correlational research design was also deemed suitable because it gives a measure of extent to which value on one variable can be predicted from values of on the other variable (Cohen, 1992).

3.3 Area of Study

Siaya County is one of the 47 counties in Kenya. The land surface area of Siaya County is 2,530km² and the water surface area is 1,005 km². It is bordered by Busia County to the North West, Vihiga and Kakamega counties to the North East, Kisumu County to the South

East and Homa Bay County across the Winam Gulf to the South, the water surface area forms part of Lake Victoria. It approximately lies between latitude 0° 26′ South to 0° 18′ North and longitude 33° 58′ East and 34° 33′ East. The altitude of the County rises from 1,140m on the shores of Lake Victoria to 1,400m above sea level on the North. River Nzoia and Yala traverse the County and enter Lake Victoria through the Yala Swamp. According to the 2009 population census, the county's population was 842,304 persons with a population density of 333 per square kilometer (Republic of Kenya 2010). The main economic activity is subsistence agriculture. It has a poverty index of 56.7% (KNBS 2009), with majority of the household either single or without parents. The county's dependency ratio is 50:50 indicating that there are 100 dependants for every 100 working age people. The county has 700 primary schools and 204 secondary schools. (Siaya County Intergrated Development Plan-2013-2017).

3.4 Study Population

The study population consisted of 204 secondary schools, the respondents were therefore 204 secondary school principals, 11,200 students beneficiaries of SCEBF drawn from different school categories, County Executive Committee Member for education and 30 Ward Administrators.

3.5 Sample Size and Sampling Techniques

A total of 68 secondary school principals, that is a third of the population, (Bell, 1993) was sampled through stratified random sampling technique. The number of students sampled were 425; this sample was obtained using a formular advanced by Yamane in 1967 (Israel, 1992).

This is expressed as $n = \frac{N}{1 + N(e)^2}$ where n is the sample size, N is the population size and e is

the level of precision, which in this case is 0.05 at 95% confidence level. This is calculated as below.

$$n = \frac{11200}{1 + 11200(0.05)^2}$$

=386, you add 10% of the sample size to get 425 students.

Stratified random sampling was used to represent county wards, this ensured proportionate representation of the study since a proportion of schools was selected from each county ward. Schools were grouped into different types as boarding, day, mixed, boys and girls into different categories as Sub-County schools, County schools and also National schools to ensure fair representation of students from diverse backgrounds. County Executive Committee Member for Education and Ward Administrators were determined through saturated sampling since a small population was involved. This is in line with Orodho (2005) who observed that small population can form samples and be studied as distinct cases.

3.6 Research Instruments.

The research tool used by the researcher were questionnaires, interview schedule and document analysis guide.

3.6.1 Questionnaires for Principals

A questionnaire was both open and closed ended and was titled Principals Questionnaires. The questionnaires was used to get information about the utilization of SCEBF, how the bursary has promoted access and equity in the secondary school and beneficiaries levels of need. (Appendix A)

3.6.2 Questionnaires for Students

Another one was student questionnaire titled Student Questionnaire and was used for gathering data on students family background and the level of support from SCEBF. (Appendix B)

3.6.3 Interview Schedule

In-depth Interview schedule were utilised as a primary source of qualitative data and were administered to both County Executive Committee Member for Education and the County Ward Administrators. (Appendix C).

3.6.4 Document Analysis Guide

Documents are true records of what occurred in the past (Best & Khan, 2004). Among the documents analysed were; county bursary forms, minutes of bursary committee meetings, enrolment of different schools, record of student drop-out, record of bursary beneficiaries and their respective schools. The documents helped to acquire more information on bursary recipients. Oso and Onen, (2005) assert that document analysis enable the researcher access data at his convenient time and is used to supplement information that may have been missed out in the questionnaire. (Appendix D).

3.7. Validity of Instruments

Validity of an instrument is how an instrument fulfils the function it is supposed to perform, (Kerlinger, 2003). If the data collected is a true reflection of the variables, then the inferences based on such data will be accurate and of meaning. The research instruments were presented to three experts in the Department of Educational Management and Foundation to determine content validity with an aim of modifying the instrument to capture information relevant to

the objective of the study. The experts made amendments and modification concerning content validity. Their comments were then incorporated in the revised instruments for eventual data collection.

3.8. Reliability of Instruments

Reliability of instruments concerns the degree to which a particular instrument procedure gives similar results over a number of repeated trials. To establish reliability of the instrument, test-retest pilot study on the instruments was done on seven schools which were left out during the actual study. The instrument was administered to respondents twice in a lapse of two weeks as recommended by Orodho (2009). The scores of the two test were then correlated using Pearson's product moment correlations where reliability co-efficient of 0.78 was obtained from principals questionnaire and 0.81 from students questionnaire. According to Danel (1979), reliability co-efficient of 0.6 to 0.8 should be attained to indicate a high degree of reliability. The findings were used to remove inconsistencies, ambiguities and weaknesses to make the instrument reliable.

3.9. Data collection Procedures

The researcher got an introductory letter from the School of Graduate Studies, Maseno University. The schools were accessed through permission from the County Director of Education. Permission was also sought from the participating principals three weeks before the research begins through written letters. Pre-visit to schools and Ward Administrators was done to fix appointments with them. Questionnaires were left to be filled by respondents and the researcher made appointments on when to come back for filled questionnaires from the principals. To ensure confidentiality, the respondents were issued with envelopes to seal filled questionnaires. To make it easy for the researcher to trace the questionnaires, they were

pre-coded. The already filled in questionnaires were collected and recorded in a developed filling-in chart.

3.10. Data Analysis

The quantitative data on data obtained from closed-ended parts of the questionnaires was analysed using descriptive statistics in form of percentages, mean and frequency distribution. It was presented in tables and graphs. The qualitative data obtained from open-ended parts of the questionnaires was analysed on an on-going basis as themes and sub-themes emerged.

Raw information on socio economic background indicators from the closed ended sections of the questionnaires was coded accordingly in order to obtain a numerical data. Given that this is a composite variable with many contributing factors, each had its own scoring scale which constituted the final score on socio economic background of students. These indicators segregate student according to level of need effectively, they include: family status of student, payer of fees, occupation of payer of fees and level of education of parent/guardian. (Appendix E). The interview schedule was analysed using document analysis.

Lorenz curve was drawn to determine the extent to which SCEBF is equitably distributed. Cumulative percentages of the Fund recipients was plotted on the X-axis while share of SCEBF received on the Y-axis. A diagonal line showing perfect equality was drawn and any sagging below the diagonal indicated inequality. Gini coefficient was computed to get precise measure of inequality as already explained in the theoretical framework. GER and NER was looked at before and after the introduction of SCEBF to establish changes in the access rate to secondary school education.

3.11. Ethical Considerations and Informed Consent

To authenticate the research process the researcher sought an introductory letter from School of Graduate Studies Maseno University to help get a research permit. The permit allowed the researcher gather information with minimal suspicion and restriction. The respondents were encouraged to give honest and reliable responses; the researcher gave an assurance to all participants that their information will be treated with utmost confidence. In addition, the data will be used for this research purpose and no other activity. This helped increase positive participation in the research. The researcher avoided using the participants' names and school identity to avoid personalizing the research findings which could create prejudice in the research analysis and use in future research work. The materials used for reference and personalities were credited through quoting them as authorities in the reference section. This was done to avoid the possibility of inadvertent plagiarism.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

The goal of of this study was to determine the contribution of County Bursary Fund in financing public secondary school education in Siaya County and wether it had enhanced equity and access to secondary school. The responses were able to help the researcher to answer the research questions based on the objectives which were: To determine the award of Siaya County Education Bursary Funds to the needy secondary school students in Siaya county, to establish the extent to which Siaya County Education Bursary Fund allocation to the recipients is equitably distributed in all the county wards in Siaya County and to determine the access rate in secondary school education in Siaya county after the establishment of Siaya County Educational Bursary Fund.

After the collection of the interview schedules and questionnaires that had been administered to 68 principals and 425 students, the results were as shown in Table 4.1.

Table 4.1: Response Rate

	Administered	Returned	Percent (%)
Principals	68	47	69.1
Students	425	398	93.0
Total	493	445	90.3

The data on Table 4.1 indicates that majority of principals (69.1 percent) and 93.0 percent of students responded to the questionnaires administered. This shows a return rate of 90.3 percent. According to Mulusa (1990), a return rate of (50%) is adequate, (60%) good and (70%) very good. The return rate was therefore considered very good to provide required information for the analysis purpose. The interview schedules administered to county executive committee member for education and ward administrators were all returned.

4.2 Demographic Characteristics of the Respondents.

This section presents the demographic characteristic of the research respondents as captured in the section of personal information on their respective questionnaires. The researcher chose to study these demographic characteristic due to their importance in explaining the study objectives.

4.2.1 Categories of schools

The researcher sought to establish the categories of school. The results are shown in Figure 4.1

Figure 4.1. Categories of schools

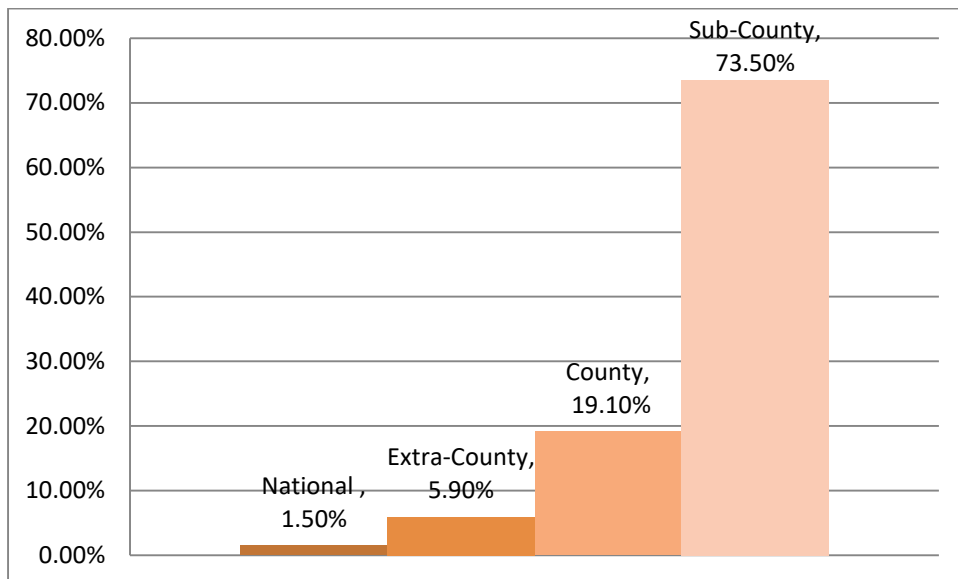


Figure 4.1 indicates that majority of schools, 50 (73.5 percent) were Sub-County schools, 19.1 percent County schools, 5.9 percent extra-county schools and 1.5 percent national school. This could be due to the fact that most schools in the county are day schools which are mostly sub-county schools.

4.2.2. Type of school

The researcher also sought to establish the type of school. The results are shown in Figure 4.2

Figure 4.2. Type of school

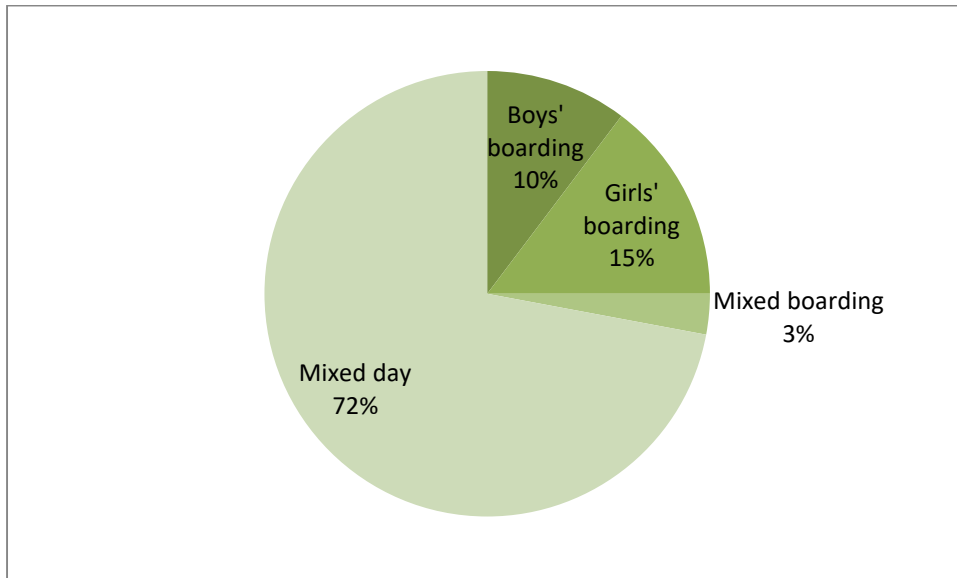


Figure 4.2 shows that majority of schools 49 (72 percent) were mixed day, 15 percent girls' boarding, 10 percent boys' boarding and 3 percent mixed boarding. This could be due to the fact that most students attend mixed day schools because of the low fee charges compared to other types of schools.

4.2.3. Students Gender

The researcher sought to establish the gender of the students, the results are shown in Figure 4.3

Figure 4.3. Gender of students

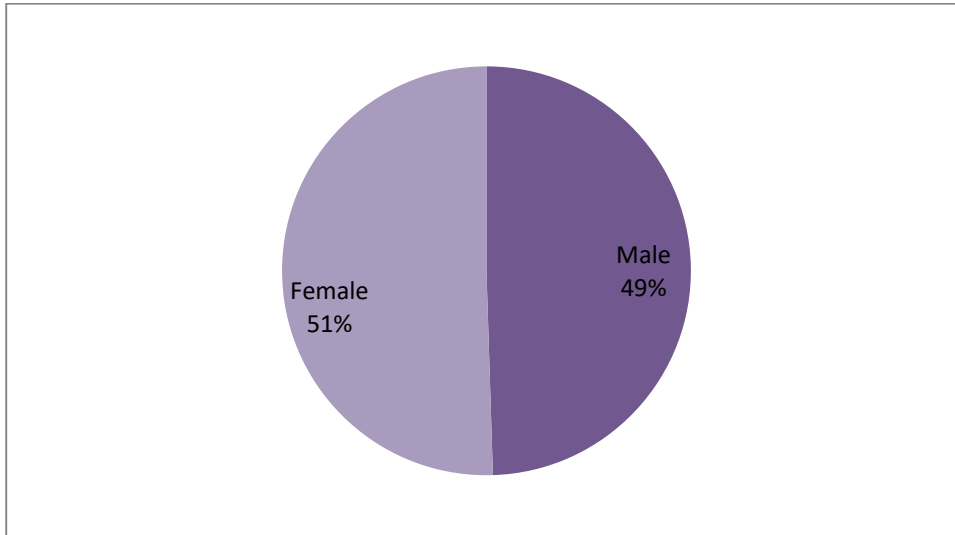


Figure 4.3 indicates that majority of students (51 percent) are girls while 49 percent are boys, almost meeting the gender parity, this concurs with the Koech report (2009) which revealed that gender parity continued to exist in Kenya education sector. Siaya county is therefore not an exception.

4.2.4 Distribution of Bursary to the Receptient by Form

The researcher sought to establish from students the form in which they were. The results are shown in Figure 4.4

Figure 4.4. Distribution of Bursary to the Receptient by Form

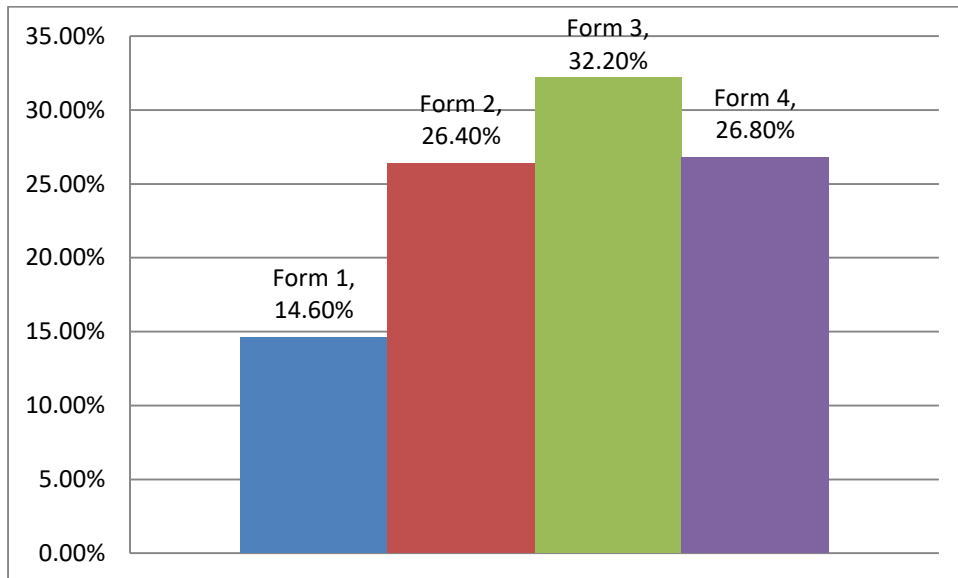


Figure 4.4 indicates that many students, 128 (32.2 percent) are in form 3, 26.8 percent in form 4, 26.4 percent in form 3 and 14.6 percent in form 1. This could be because SCEBF tend to benefit continuing students in secondary school in the county as compared to those just joining.

4.2.5 Socio-Economic Background of the students

Performance of each student on the Socio-Economic Background indicators was examined based on the information in their questionnaire for the purpose of obtaining their respective Socio-Economic Background score. Information gathered are summarised in table 4.2, 4.3, 4.4 , and 4.5.

Table 4.2 Students' family status

Family status	Frequency (F)	Percent (%)
Have both parents	146	36.7
Have one parent	178	44.7
No parent	74	18.6
Total	398	100

The data on Table 4.2 shows that many students (44.7 percent) had only one parent, 36.7 percent had both parents and 18.6 percent had no parent. Therefore, it means 63.3% of the students were either total or partial orphans who needed SCEBF intervention to access education because they were less advantaged. The study also sought to shed some light on payer of the school fees to determine the number of the less advantaged children.

Table 4.3 Payer of the fees

Characteristic	Frequency	Percentage(%)
Parent(s)	227	57.0
Guardian/Relative	56	14.1
Sponsor(NGO/Church)	115	28.9
Total	398	100

Source: Field data

From table 4.3 majority of students (57%) were those whose fees were paid by parents followed by institutional based sponsor like churches, NGOs and government entities such as CDF and SCEBF at 28.9%, guardians and relatives paid fees for 14.1% of the respondents. The findings are in line with a study by IPAR (2008) which revealed that the parents and guardians were the main sponsors of their children's secondary education as the Secondary School Education Bursary offered by the government was inadequate and unreliable to ensure access and retention of students from poor background.

Table 4.4 Occupation of payer of fees

Characteristic	Frequency	Percentage(%)
Employed	119	29.9
Self employed	82	20.6
Not employed	197	49.5
Total	398	100

Source: Field data

From table 4.4 majority of students (49.5%) were those whose fees were being paid by persons who were not employed. This depicts that the SCEBF was a critical source of funds for the students' education as majority of their parents (49%) did not have a stable source of income. The findings concur with Mirigat (2003) who reported that 'of the richest 20% households, 76% of their children attend school compared to 40% of the poorest 20% households. This means that children from poor households have much lower attendance. This is confirmed by Maeke (2003), looking at problem of access in Mali and found out that the low socio economic levels of parents were among the factors that hindered access and further led to drop out among the few students who had managed to enroll in school.

The next indicator to be considered was the highest level of education attained by the parent or guardians. A consideration was made for any of the two parents, either a father or a mother with the highest level of education attained

Table 4.5 Highest level of education attained by parents or guardians

Characteristic	Frequency	Percentage
Primary	213	53.5
Secondary	67	16.9
Post secondary	13	3.3
University/College	2	0.5
Others	103	25.9
Total	398	100

From table 4.5, majority of students (53.5%) were students whose parents/guardians were having primary school education, while very few 0.5% of the parents had university/college

level of education. This also translates to level of income because the more education one gets the higher the earning according to human capital theory (Psacharopoulos & Woodhall, 1985). Since most of this parents/guardians had primary school education, most of them hence had low income hence needed SCEBF intervention.

4.3 Determination of the award of SCEBF to the needy secondary school students in Siaya County

The first objective of the study was to determine the award of SCEBF to the needy secondary school students.

4.3.1 Amount of money schools received from SCEBF between 2013 and 2017

The researcher sought to determine the amount of money schools received from SCEBF between 2013 and 2017. The results are shown in Table 4.6

Table 4.6 Amount of money schools received from SCEBF between 2013 and 2017

Amount (kshs)	2013		2014		2015		2016	
	F	%	F	%	F	%	F	%
50,000 – 100,000	5	10.6	4	8.5	4	8.5	3	6.4
100,001 – 150, 000	8	17.0	6	12.8	5	10.6	6	12.8
150,001 – 200,000	21	44.7	13	27.7	17	36.2	14	9.8
200,001 – 250,000	10	21.3	20	42.6	19	40.4	19	40.4
Over 250, 000	3	6.4	4	8.5	2	4.3	5	10.6
Total	47	100	47	100	47	100	47	100

The data on Table 4.6 indicates that many schools (44.7 percent) received between 150,001 – 200,000 Kenya shillings in the year 2013 from SCEBF. Most schools received between 200,001 – 250,000 Kenya shillings in 2014 (42.6 percent), 2015 (40.4 percent) and 2016 (40.4 percent). No school had received SCEBF in the year 2017.

Table 4.7 Amount of money students received from SCEBF between 2013 and 2017

	2013			2014			2015			2016		
Amount (ksh)	f	%	cum.P	f	%	cum.P	f	%	cum.P	f	%	cum.P
5000-8000	174	43.7	43.7	182	45.7	45.7	161	40.5	40.5	171	49.7	42.96
8,001-11,000	93	23.4	67.1	102	25.6	71.3	92	23.1	63.6	89	26.9	65.32
11,001-14,000	60	15.1	82.2	46	11.6	82.9	56	14.1	77.7	66	16.6	81.9
14,001-17,000	40	10.1	92.3	40	10.1	93.0	51	12.8	90.5	30	4.8	89.44
17,001-20,000	31	7.7	100	28	7.0	100	38	9.5	100	42	2.0	100
	398	100		398	100		398	100		398	100	

The data indicates that most students (43.7%) received between Ksh 5,000-8,000 in the year 2013 from SCEBF, 45.7% received Ksh.5,000-8,000 in the year 2014. In the year 2015 most student(40.5%) received 5,000-8,000 and the year 2016 had 42.96%, in the allocation, majority of beneficiaries got (Ksh. 5,000-Ksh. 8,000) which was to low to cover the tuition need of the students.

This concurs with IPAR report that stated that bursary fund allocation levels to beneficiaries was too low to cover the entire fees for those assessed as poor and needy, especially in boarding schools where the government is implementing a tuition fee waiver for all students in all public schools (IPAR, 2009).

4.3.2 Sufficiency of SCEBF

The principals were asked whether the funds were sufficient to cater for the bursary needs in their schools. Their responses are shown in Table 4.8

Table 4.8 Sufficiency of SCEBF

	Frequency (F)	Percent (%)
Yes	9	19.1
No	38	80.9
Total	47	100

Data on Table 4.8 indicates that majority of principals (80.9 percent) said that the money received from SCEBF was not sufficient to cater for bursary needs in their schools. Majority of students (77.9 percent) indicated that the amount of money applied for as bursary was much less than the amount received. This was revealed also from the interview schedule with the County Executive Committee Member of Education who stated:

“The government should increase the allocation of bursary fund to ensure that all the needy students who apply for the bursary fund are given enough money that would facilitate retention in school. The fund should be timely released to the County Government to prevent delays in disbursement to schools.”

The findings are in line with IPAR (2009), that reported that the bursary fund allocation levels to beneficiaries was too low to cover the entire fees for those assessed as poor and needy, especially in boarding schools.

4.3.3 Number of meriting cases for bursary against number of recipients

The researcher also sought to establish number of meriting cases for bursary against number of bursary recipients. The results are shown in Table 4.9

Table 4.9 Number of meriting cases for bursary against number of recipients

Year	Number of meriting cases	number of recipients	Percent (%) of the recipients
2013	5,264	1,842	35
2014	5,593	2,194	39.2
2015	5,721	2,318	40.5
2016	6,317	2,637	41.7

Table 4.9 indicates that the percentage of bursary recipients between the years 2013 to 2016 was below half the number of meriting students though the number has been increasing. This shows that majority of meriting student do not receive bursary as established from the interview schedule with the County executive committee member for education and ward administrators who stated:

“Lack of funds and political interference is a major challenge to our main objective of having only the needy students getting bursaries, some Members of County Assembly directs that some students be given bursaries, because of the interferences from politicians and personal interest of some committee members, some non deserving cases get bursaries.”

This finding concurs with a study by Mwangi (2006) on CBF, who found out that Constituency Bursary Fund is fraught with pitfalls and student who do not deserve get money because of political interference.

4.4 Extent to which SCEBF allocation to the recipient is equitably distributed in Siaya County.

The researcher sought to establish the extent to which SCEBF allocation to the recipient is equitably distributed in all the county wards. County executive committee member for education and ward administrators strongly agreed that there was no equitable distribution of SCEBF. Insufficient fund was cited as one of the major cause of inequitable distribution. The money received by the county was less compared to the number of applicants. The executive committee member suggested that the government should increase the money allocated for bursaries for equity to prevail. Politics, nepotism and corruption were the other causes of inequitable allocation of bursary. These hindered fair distribution of SCEBF in all the county wards. Needy areas missed the funds due to being side-lined because of political reasons.

One of the main tool for the assessment of the distribution of income or bursary allocation in the case of this study is the use of Lorenz curve. In an art to estbalish the distribution of SCEBF allocation as was the objective of the study, various steps were employed. First, the study worked out the mid points of range of allocation from 2013 to 2016, then frequency of the beneficiaries per range was worked out. Summation was done and tabulated per year from 2013 to 2016. Table 4.10 shows the summary of SCEBF allocation between year 2013 and year 2016.

Table 4.10 Trend of SCEBF allocation

MID POINTS	FREQUENCY	F _x	F	F _x	F	F _x	F	f _x
(x)	(F) 2013		2014		2015		2016	
6500	174	1,131,000	182	1183000	161	1046500	171	1111500
9500	93	883,500	102	969000	92	874000	89	845500
12500	60	750,000	46	575000	56	700000	66	825000
15500	40	620,000	40	620000	51	790000	30	465000
18500	31	573,500	28	518000	38	703000	42	777000
	398	3,958,000	398	3,865,000	398	4114,000	398	4,024,000

Table 4.10 shows trend of SCEBF allocation from the year 2013-2016 showing that the year 2015 had the highest amount of bursary given to student beneficiaries followed by the year 2016. The data from the table was used to aid in establishing how equitable the funds were allocated in respect to the students level of need. To measure degree of of inequalities in SCEBF distribution it was neccesary to use the gini coefficients,

to find these coefficients, Lorenz curves were to be drawn using cumulative percentages

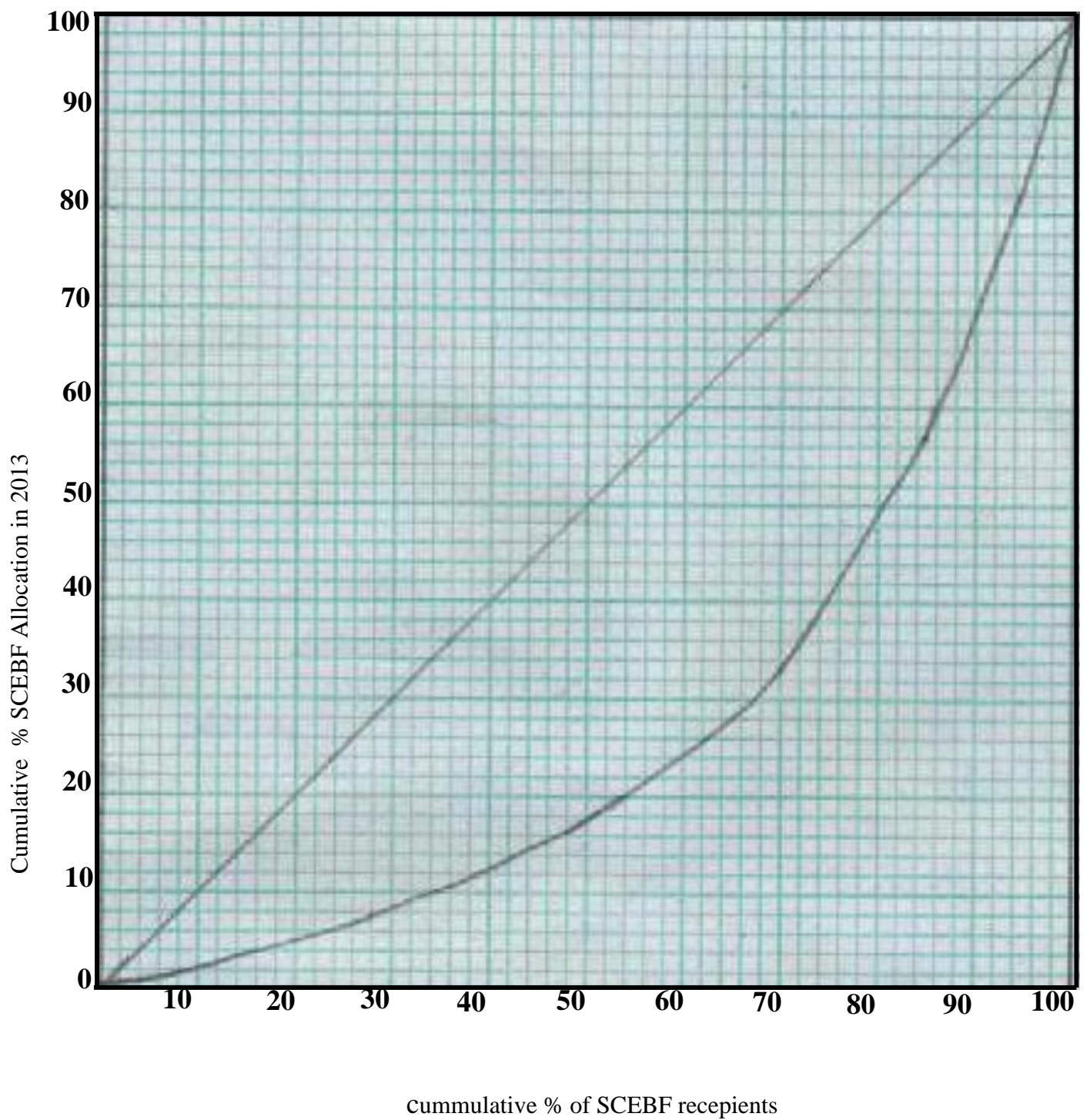
Table 4.11

Values of cumulative percentages for x and y axes for Lorenz Curve (n=398)

Years	Type of axis	Cummulative Percentages of Recepients against SCEBF allocation.	Amount of				
2013	X	0	28.58	50.9	69.85	85.57	100
	Y	0	7.79	17.89	32.97	56.34	100
2014	X	0	30.61	55.68	70.56	86.6	100
	Y	0	7.04	17.09	28.65	54.28	100
2015	X	0	25.44	46.68	63.7	82.91	100
	Y	0	9.55	22.36	36.43	59.55	100
2016	X	0	27.02	48.63	69.13	80.69	100
	Y	0	10.55	18.09	34.67	57.03	100
Entire period	X	0	27.91	50.47	68.31	83.94	100
	Y	0	8.73	18.86	33.18	56.8	100

Values of cumulative percentages in Table 4.11 were used to plot both the x and y axis of the Lorenz curve as shown in Figures 4.5, 4.6, 4.7, 4.8 and 4.9 respectively.

Figure 4.5 Lorenz curve and Gini Coefficient for the year 2013



Lorenz curve for the year 2013

Determination of Gini coefficient

$$\text{Area of Half Square} = \frac{1}{2} \times \text{base} \times \text{height}$$

$$= \frac{1}{2} \times \text{base} \times \text{height}$$

$$= \frac{1}{2} \times 100 \times 100$$

$$= 5000$$

To find area below Lorenz curve, the Mid-ordinate rule was used as follows

Mid ordinate rule= (Width of interval) × (Sum of Mid-ordinates)

$$= h \times (y_1 + y_2 + \dots + y_n)$$

$$\text{Area below Lorenz curve} = 10 \times (1.0 + 2.0 + 6.0 + 10 + 13 + 21 + 28 + 39 + 53 + 78)$$

$$= 10 \times 251$$

$$= 2510$$

$$\text{Area between line of Equality \& Lorenz curve} = 5000 - 2510 = 2490$$

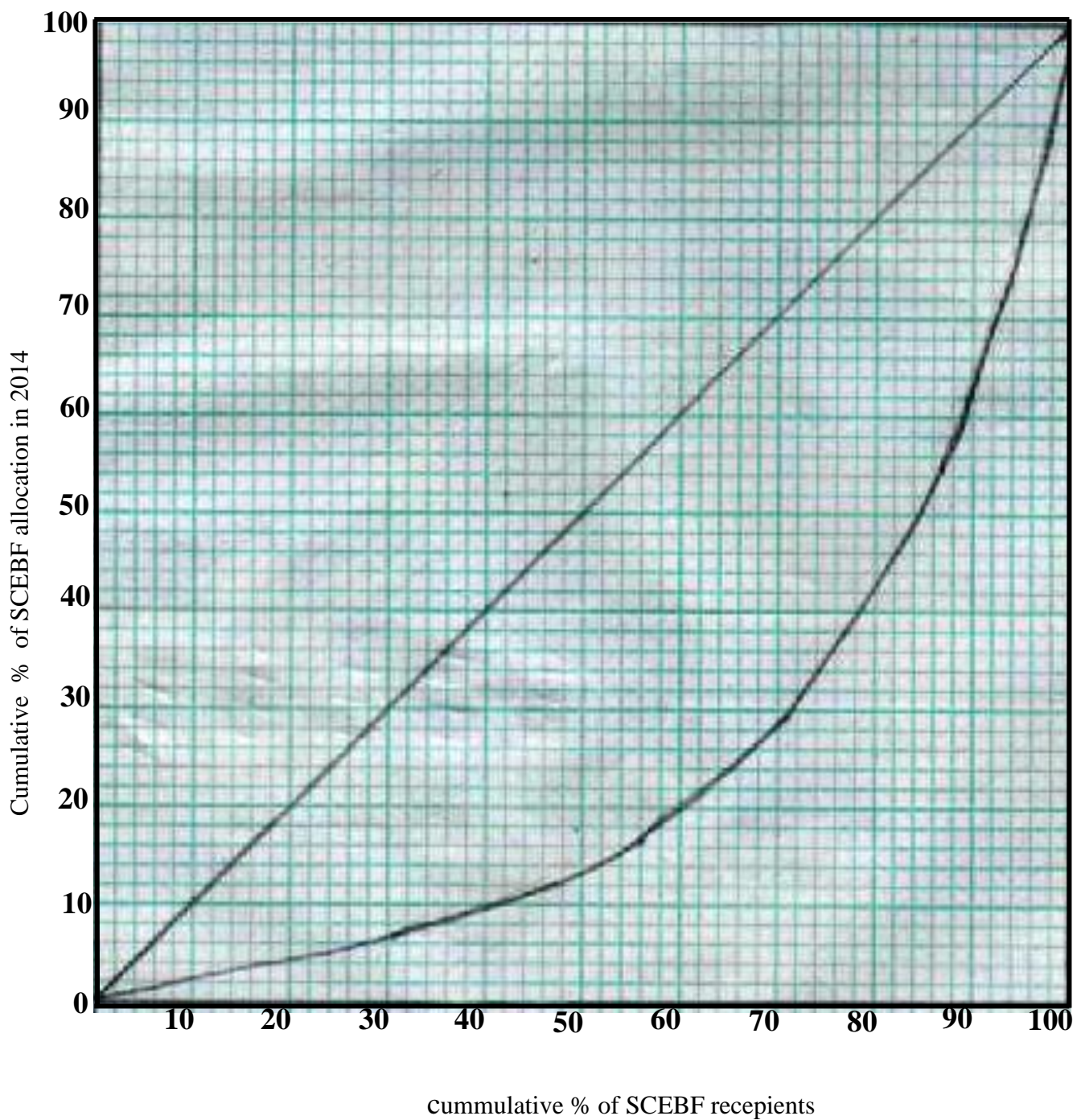
$$\text{Gini coefficient} = \frac{2490}{5000}$$

$$= 0.498$$

$$\text{Gini coefficient} = 0.50$$

Since the gini coefficient was 0.50, it implies that there was relatively inequitable allocation of SCEBF to the recipient in the year 2013. Hence, this means that the first SCEBF allocation was inequitably allocated to students at its inception failing to meet its equity objective.

Figure 4.6 Lorenz curve and Gini Coefficient for the year 2014



Lorenz curve for the year 2014

Determination of Gini coefficient

$$\text{Area of Half Square} = \frac{1}{2} \times \text{base} \times \text{height}$$

$$= \frac{1}{2} \times \text{base} \times \text{height}$$

$$= \frac{1}{2} \times 100 \times 100$$

$$= 5000$$

To find area below Lorenz curve, the Mid-ordinate rule was used as follows

Mid ordinate rule = (Width of interval) × (Sum of Mid-ordinates)

$$= h \times (y_1 + y_2 + \dots + y_n)$$

$$\text{Area below Lorenz curve} = 10 \times (1.0 + 3.0 + 5.0 + 13.0 + 17.0 + 23.0 + 33.0 + 48 + 76)$$

$$= 10 \times 227$$

$$= 2270$$

$$\text{Area between line of Equality \& Lorenz curve} = 5000 - 2270 = 2730$$

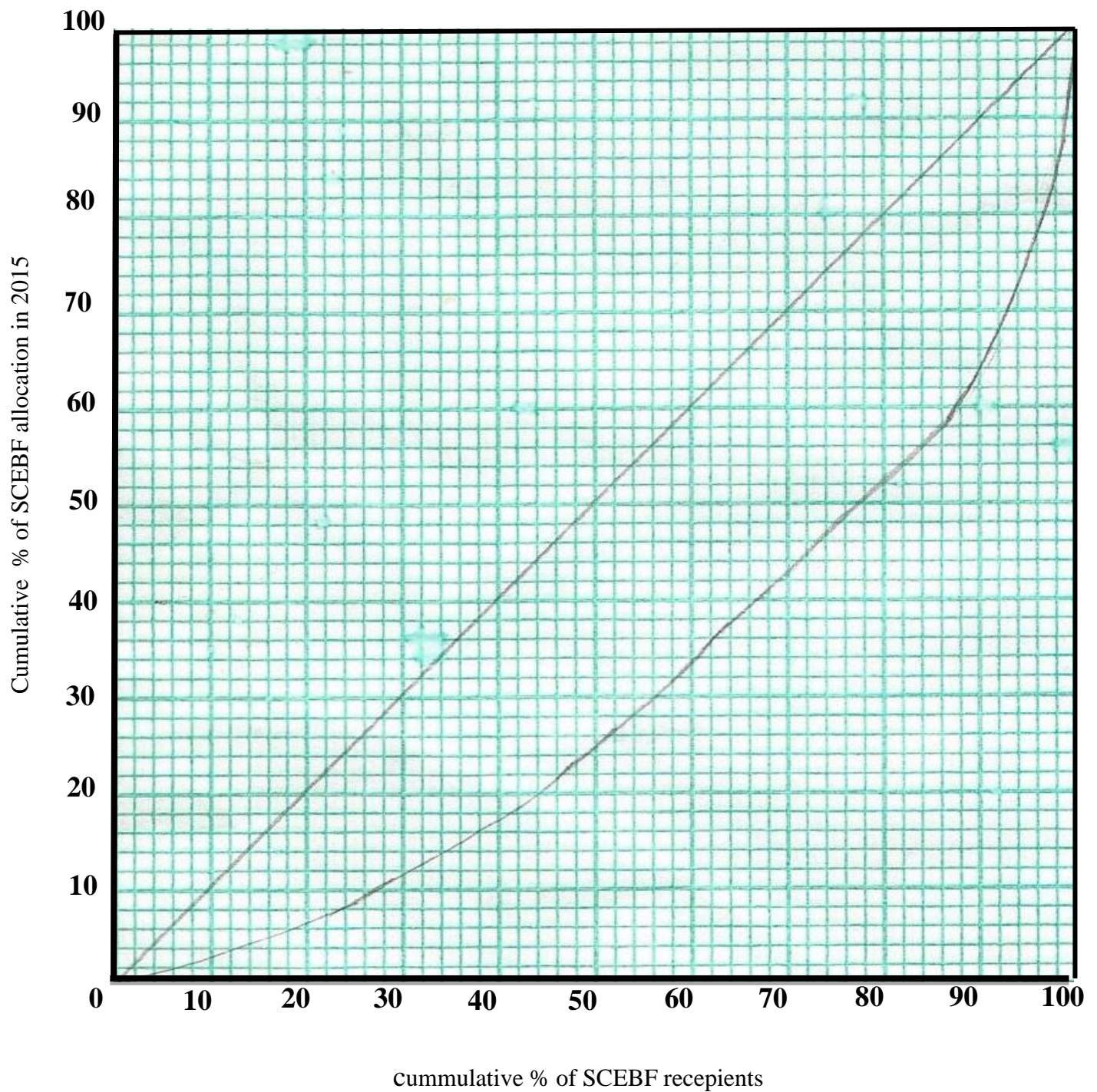
$$\text{Gini coefficient} = \frac{2730}{5000}$$

$$= 0.546$$

$$\text{Gini coefficient} = 0.55$$

In the year 2014, the gini coefficient of 0.55 implies that there was still relatively inequitable allocation of SCEBF, as compared to the previous year, the rise in the gini coefficient from 0.50 to 0.55 reflects an increase in the unfairness in the allocation of the bursary scheme of about 0.05 % in the year 2013 and 2014.

Figure 4.7 Lorenz curve and Gini Coefficient for the year 2015



Lorenz curve for the year 2015

Determination of Gini coefficient

$$\text{Area of Half Square} = \frac{1}{2} \times \text{base} \times \text{height}$$

$$= \frac{1}{2} \times \text{base} \times \text{height}$$

$$= \frac{1}{2} \times 100 \times 100$$

$$= 5000$$

To find area below Lorenz curve, the Mid-ordinate rule was used as follows

Mid ordinate rule = (Width of interval) × (Sum of Mid-ordinates)

$$= h \times (y_1 + y_2 + \dots + y_n)$$

$$\text{Area below Lorenz curve} = 10 \times (1.9 + 5.0 + 9.0 + 12.0 + 21.0 + 29 + 39 + 48 + 57 + 75)$$

$$= 10 \times 296.9$$

$$= 2969$$

$$\text{Area between line of Equality \& Lorenz curve} = 5000 - 2969 = 2031$$

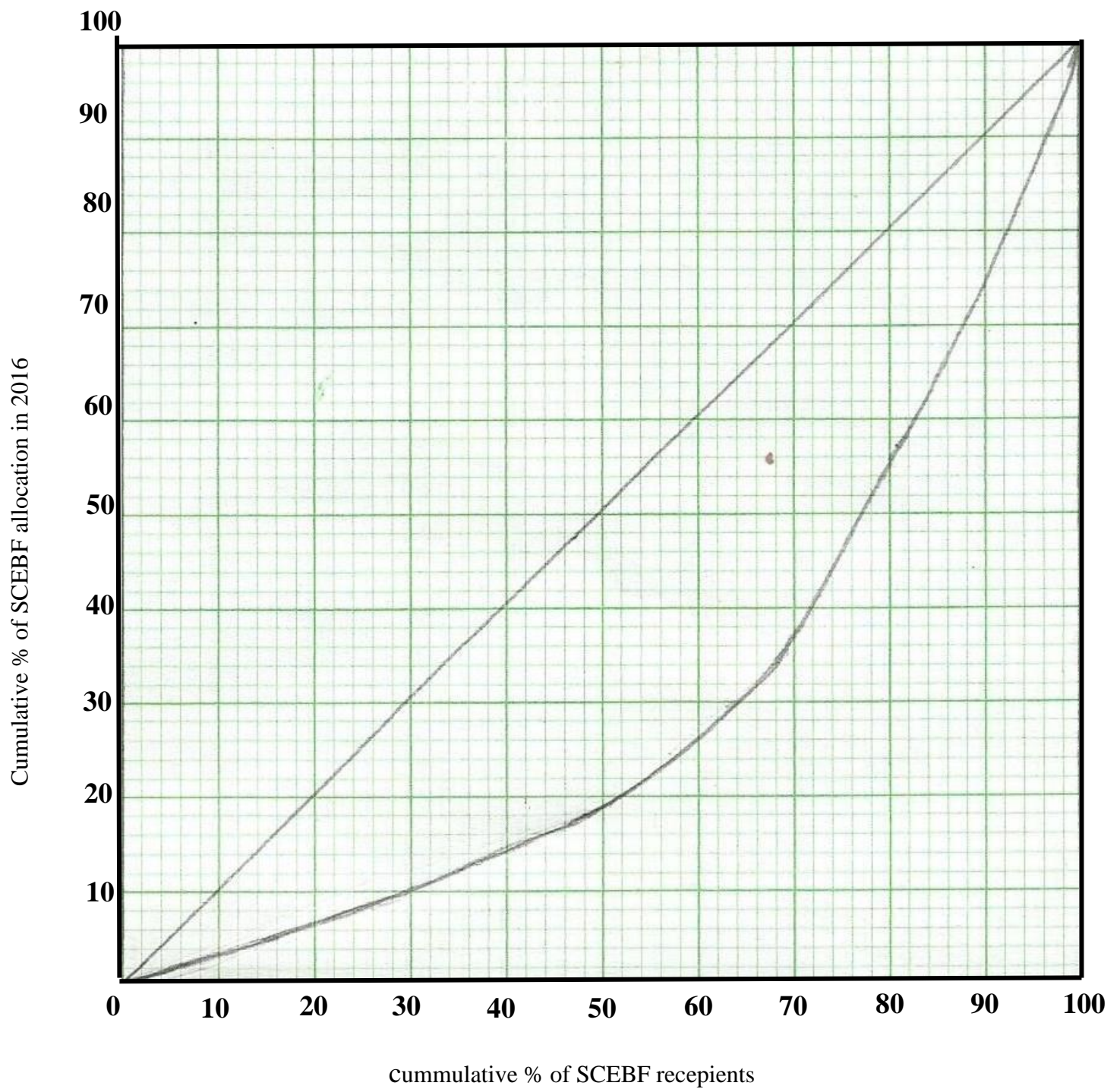
$$\text{Gini coefficient} = \frac{2031}{5000}$$

$$= 0.4062$$

$$\text{Gini coefficient} = 0.41$$

The gini coefficient for the year 2015 was 0.41 implying that the level of inequity in bursary allocation had slightly reduced from 0.55 in 2014. This represented 0.14% decrease, since the gini coefficient was more than the range of 0.20-0.35 that represents equitable distribution as outlined in the literature (page 14), the allocation was therefore still inequitable.

Figure 4.8 Lorenz curve and Gini Coefficient for the year 2016



Lorenz curve for the year 2016

Determination of Gini coefficient

$$\text{Area of Half Square} = \frac{1}{2} \times \text{base} \times \text{height}$$

$$= \frac{1}{2} \times 100 \times 100$$

$$= 5000$$

To find area below Lorenz curve, the Mid-ordinate rule was used as follows

Mid ordinate rule = (Width of interval) × (Sum of Mid-ordinates)

$$= h \times (y_1 + y_2 + \dots + y_n)$$

$$\text{Area below Lorenz curve} = 10 \times (2.0 + 5.0 + 8.0 + 12.2 + 16 + 22 + 31 + 46 + 64 + 86)$$

$$= 10 \times 292.2$$

$$= 2922$$

$$\text{Area between line of Equality \& Lorenz curve} = 5000 - 2922 = 2078$$

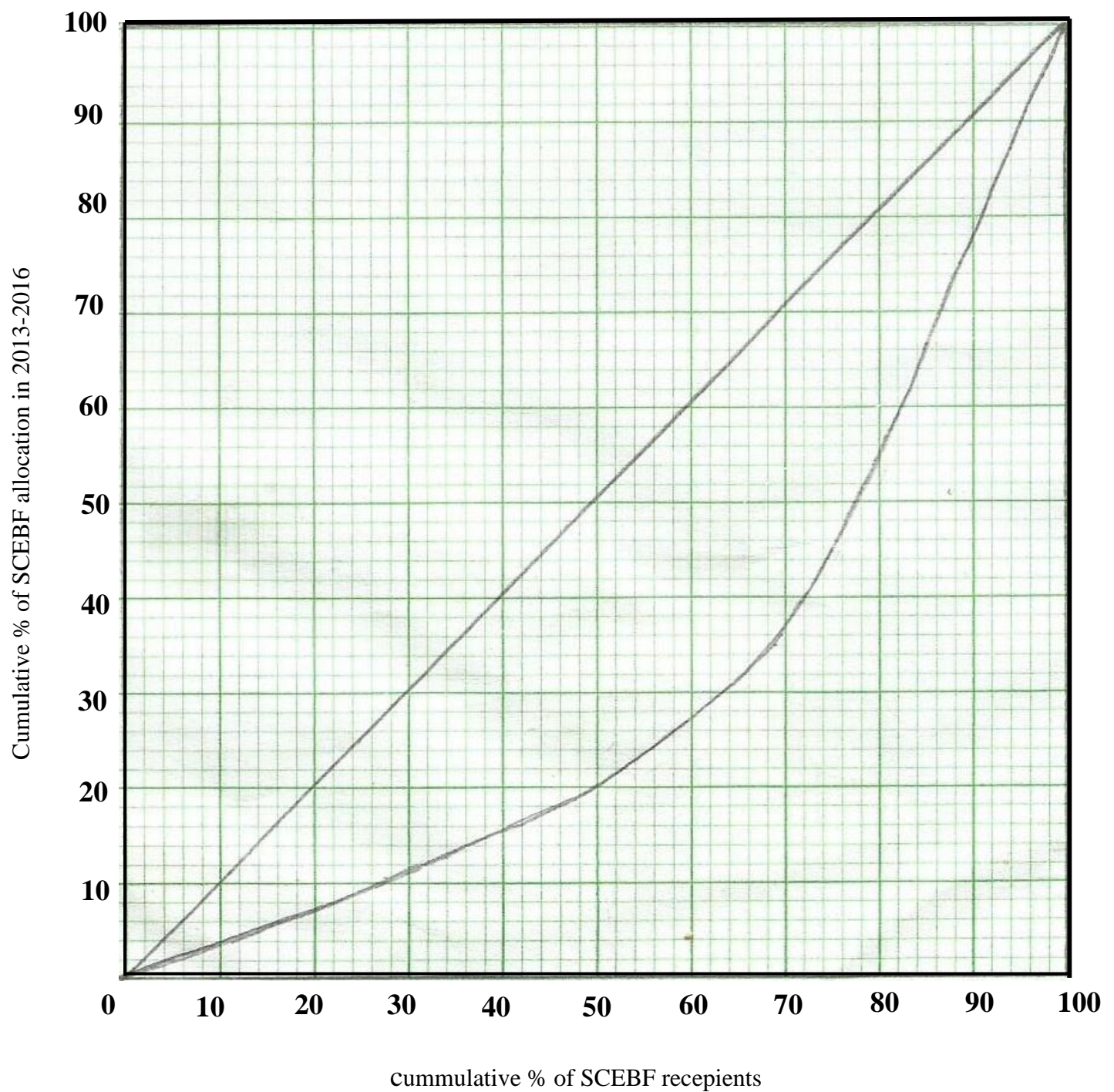
$$\text{Gini coefficient} = \frac{2078}{5000}$$

$$= 0.4156$$

$$\text{Gini coefficient} = 0.42$$

The gini coefficient for the year 2016 was 0.42 which implies a relatively unequitable allocation of SCEBF. There was a slight percentage increase from the year 2015 meaning that the level of inequity between the two years was almost the same.

Figure 4.9 Lorenz curve and Gini Coefficient for the period between 2013 to 2016



Lorenz curve for the period between 2013 to 2016

Determination of Gini coefficient

$$\text{Area of Half Square} = \frac{1}{2} \times \text{base} \times \text{height}$$

$$= \frac{1}{2} \times \text{base} \times \text{height}$$

$$= \frac{1}{2} \times 100 \times 100$$

$$= 5000$$

To find area below Lorenz curve, the Mid-ordinate rule was used as follows

Mid ordinate rule = (Width of interval) × (Sum of Mid-ordinates)

$$= h \times (y_1 + y_2 + \dots + y_n)$$

$$\text{Area below Lorenz curve} = 10 \times (2.0 + 6.0 + 9.0 + 13.8 + 17.8 + 23.7 + 31 + 45 + 66 + 90)$$

$$= 10 \times 304.3$$

$$= 3043$$

$$\text{Area between line of Equality \& Lorenz curve} = 5000 - 3043 = 1957$$

$$\text{Gini coefficient} = \frac{1957}{5000}$$

$$= 0.3914$$

$$\text{Gini coefficient} = 0.39$$

The average gini coefficient for the year 2013-2016 was 0.39. This implies that there was inequitable allocation of SCEBF to students. The gini coefficient is far above the 0 value, implying that there is complete inequity in the allocation of SCEBF. This finding concurs with a study by Odebero (2002) on bursary allocation in Busia District that revealed that the allocation was not equitable. According to the study, recipients from high economic backgrounds received more bursary support than those from humble background. This is also in line with another study by Otieno (2011) in Nyando District that revealed a highly unequal distribution of CDF allocation to secondary schools at a gini coefficient of 0.507.

Table 4.12 Correlations matrix between economic background and SCEBF allocation**Correlations**

		Economic background	Amount SCEBF fund	merit
Economic back	Pearson Correlation	1	.318**	.242**
	Sig. (2-tailed)		.000	.003
	N	398	398	398
Amount SCEPF fund	Pearson Correlation	.318**	1	.191*
	Sig. (2-tailed)	.000		.018
	N	398	398	398
Merit	Pearson Correlation	.242**	.191*	1
	Sig. (2-tailed)	.003	.018	
	N	398	398	398

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

From the findings in Table 4.12, it is clear that there was a weak positive significant correlation between the amount of SCEBF distributed and the students economic background ($r=.318$, $p=.000$). This implies that when the economic background increases the SCEBF increases. On the other hand, there was no relationship between the amount distributed and the learner's merit. These findings imply that there was bias in fund distribution and it could imply that the beneficiary could be different from the actual needy students.

Simple linear regression model was also used to establish the effect of economic background on the amount of SCEBF distributed. Therefore, SCEBF distributed was regressed against the economic background and the results for the model coefficients presented as shown in Table 4.13

Table 4.13 Effect of Economic Background on SCEBF Distributed

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	4.335	.375		11.567	.000
Economic background	.293	.090	.318	3.267	.002

a. Dependent Variable: SCEBF distributed

The findings shows that economic background has an effect on the amount of SCEBF distributed among the beneficiaries ($\beta=.293$, $p=.002$), implying that a unit increase in economic background leads to 0.293 increase in SCEBF allocation. Thus, an improvement in the economic background of the beneficiary automatically leads to an improvement in the amount they received.

Summary model results were also presented for the percentage change or variance in the amount accounted for by the change in the economic background of the beneficiary. The findings are presented as shown in Table 4.14.

Table 4.14 Amount of SCEBF Distributed

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F	df1	df2	Sig. F Change
1	.318 ^a	.101	.092	.859	.101	10.675	1	95	.002

a. Predictors: (Constant), economic background

The findings in Table 4.14 indicates that economic background accounted for 10.1% change in the amount of SCEBF distributed among the beneficiaries ($R^2=.101$, $p=.002$). Thus, economic background has an influence on the amount that was distributed.

4.5.1 Influence of SCEBF on access to secondary education

The researcher sought to establish school enrolment for both girls and boys between 2013 and 2017 sampled in the study; the results are shown in Table 4.15

Table 4.15 Students enrolment between 2013 and 2017

Year	Sex	Form 1	Form 2	Form 3	Form 4	Total (per gender)	Total	% Increase
2013	Boys	846	987	885	823	3541		
	Girls	940	995	872	796	3603	7144	
2014	Boys	1128	893	942	853	3816		
	Girls	1081	1034	934	813	3862	7678	7.5
2015	Boys	1034	1084	978	924	4020		
	Girls	1316	1153	952	887	4308	8328	8.5
2016	Boys	1175	1128	1024	982	4309		
	Girls	1410	1363	998	907	4678	8987	7.9
2017	Boys	1316	1213	1127	1269	4925		
	Girls	1504	1418	1009	973	4904	9829	9.4

Source: Field data 2017

Table 4.15 shows the students' enrolment between 2013 and 2017 for the school sampled in the study, it shows a steady increase in enrollment from the year 2013. The average percentage increase was 8.3% with the highest increase of 9.4% between 2016 and 2017, this could be attributed to the SCEBF that supported the needy students to secondary school. The table also indicates that the number of girls is higher than boys in form one and two while lower in form three and four. This shows that many girls drop out of schools compared to boys. The finding concurs with a study by Mochari (2005) on bursary contribution on girl child in Nyamira District who noted that award and distribution to certain extent benefited few and was gender bias.

The principals were asked to indicate whether SCEBF had increased access to secondary education for children from poor socio-economic background. All principals (100 percent) indicated that SCEBF significantly increased access to education for children from poor socio-economic background as the funds catered for part of their school fees. This can be seen in Table 4.15 as the number of students enrolled between 2013 and 2017 has been increasing. NJeru and Orodho(2003) argued that bursary scheme was meant to promote access and quality in the acquisition of secondary school education.

4.5.2 Students' responses on being sent home for fees

The researcher sought to determine whether the students have ever been sent home because of school fees. Their responses are shown in Table 4.16

Table 4.16 Students' responses on being sent home for fees

	Frequency (F)	Percent (%)
Yes	273	68.6
No	125	31.4
Total	398	100

Table 4.16 indicates that majority of students (68.6 percent) have been sent home because of non-payment of school fees. This depicts that access and retention of students to secondary schools was significantly affected by lack of finances as reflected by high rate of students being sent home. According to Lewin (2002), in many countries fees and private cost often make it impossible in the absence of affectively targeted financial support for the few poor children that complete primary education to enroll and complete secondary school further skewing participation towards wealthy households. According to UNICEF (2016), people living below the poverty line in Kenya stand at 46 percent and this pose affordability problems towards the financing of secondary education. Thus, majority of the families require external financial support to afford the financing of secondary education of their children.

4.5.3 Students responses on applying for SCEBF

The researcher also sought to establish if students have been applying for SCEBF every year. Their responses are shown in Table 4.17

Table 4.17 Students responses on applying for SCEBF

	Frequency (F)	Percent (%)
Yes	237	59.5
No	161	40.5
Total	398	100

The findings in Table 4.17 indicate that majority of students (59.5 percent) have been applying for SCEBF every year. This shows that there are a large number of needy students. However, 40.5 percent of students have not been applying every year as some gave up after missing the previous years and lack of information about SCEBF. The findings are in line with Orodho and Njeru (2003) who attested that the deserving beneficiaries did not fully participate in applying for the bursary owing to lack of adequate information about it.

4.5.4 Number of SCEBF recipient drop outs between 2013 and 2017

The researcher sought to establish from principals the number of SCEBF recipients who dropped out of school because they could not raise the remaining fees. Their responses are shown in Table 4.18

Table 4.18 Number of SCEBF recipient drop outs between 2013 and 2017

Years	Boys	Girls	Total
2013	11	13	24
2014	9	17	26
2015	5	12	17
2016	-	7	7
2017	-	-	-
Total	25	49	74

The data in Table 4.18 indicates that 25 boys and 49 girls who had previously received SCEBF dropped out of school because they could not raise the remaining fees on their own. The number of students dropping out has been decreasing between the year 2014 and 2017. This shows that SCEBF has catered for education needs for many needy students thereby reducing number of drop outs.

In addition to these findings, the study also endeavored to establish the influence of SCEBF allocation on access to secondary school education. Access to secondary education was therefore, regressed against SCEBF allocation and the results for standardized beta coefficients presented as shown in Table 4.19

Table 4.19: Effect of SCEBF allocation on access to secondary school education

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.040	.192		5.406	.000
	Accountability	.697	.053	.564	13.265	.000

a. Dependent Variable: Access to secondary education

From the findings presented in Table 4.19, it is clear that there would be a change in access to secondary education by a value of 1.040 (constant value), without introducing any independent variable in the model. However, based on the selected variables, the findings indicates that SCEBF allocation had unique significant contribution to access to secondary education ($\beta=.564$, $p=.000$). These findings imply that whenever a positive change occurs in SCEBF allocation, there are significant improvements in access to secondary school education in the county. These findings were significant as indicated by a t value $t(380)=13.265$, $p=.000$ implying that these finding did not occur by chance.

The findings on the effect of SCEBF allocation were also expressed in terms of the percentage change on access to secondary education. The findings are presented as shown in Table 4.20

Table 4.20: Summary Model on Effect of SCEBF allocation on Access to secondary education

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			
						F	df1	df2	Sig. F Change
1	.564 ^a	.318	.316	.13626	.318	175.951	1	396	.000

a. Predictors: (Constant), SCEBF allocation

The findings in Table 4.20 show that there is a positive relationship between the independent variable (SCEBF allocation) and access to secondary education as indicated by R value of

0.564 in the overall model. This means that the two variables are associated. The findings further shows an R square value of 0.318, which is the proportion of variance in access to secondary school education accounted for by SCEBF allocation. This value can as well be expressed as a percentage when multiplied by 100% so that a value of 31.8% becomes the overall percentage change in access to secondary education accounted for by SCEBF allocation. An F value of 175.951 confirms that the findings are not by chance but as a result of fitting the model and therefore the model is significant, $F(1, 378)=175.951$, $p=.000$. These findings imply that overally, SCEBF allocation significantly accounts for 31.8% change in access to secondary school education. Thus it can be concluded that SCEBF allocation has an effect on secondary school education access as is the case also on equity in financing.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This chapter presents a summary of findings of the research objectives. The study had three objectives namely: To determine the award of Siaya County Educational Bursary Funds to the most needy secondary school students in Siaya county, to establish the extent to which Siaya County Educational Bursary Fund allocation to the recipient is equitably distributed in all the county wards in Siaya County and to determine the access rate in secondary school education in Siaya county after the establishment of Siaya County Educational Bursary Fund. It critiques and makes conclusions drawn from the study and gives respective recommendation. The chapter also gives suggestions for further research.

5.2. Summary of the study

This section presents a summary of the findings engendered by the research objectives. It is therefore subdivided into three each presenting a summary of each of the three objectives.

5.2.1 Determine the award of SCEBF to the needy secondary school Students in Siaya County

The study established that many schools received between 200,001 – 250,000 Kenya shillings between the year 2014 and the year 2017 from SCEBF. The money was not sufficient to cater for bursary needs in schools. The amount of money most students received as bursary was between Ksh 5,000 - Ksh 8,000 this was highest in the year 2014 at 45.7%. The bursary given to students was less than amount applied for in the entire period making parents to seek alternative ways to raise the remaining part of the school fees. The money was

allocated based on the needs of students. Needy and orphans received more than those who were not needy and orphaned this was confirmed by 76.6% of principal who confirmed that level of need of student was used to determine the bursary given.

5.2.2 Establish the extent to which SCEBF allocation to the recipient is equitably distributed in Siaya County

Lack of enough funds, politics, nepotism and corruption were cited as the major causes of inequitable distribution of bursary in different county wards. The money received by the county was less compared to the number of applicants. The average gini coefficient for the year 2013-2016 was 0.39, gini coefficients vary from 0 (perfect equality) to 1 (perfect inequality). Gini coefficient for countries with highly unequal income distributions typically lies between 0.50 and 0.70, while for countries with relatively equitable distribution lies between 0.20 to 0.35 (Todaro & Smith, 2006) thus, 0.39 implies that there was inequitable allocation of SCEBF to the students.

5.2.3 Determine the access rate in secondary school education in Siaya county after the establishment of SCEBF

The study discovered that enrolment to secondary school had significantly improved between the year 2013 and 2017 with an average enrolment of 8.3% and the highest increase of 9.4% between the year 2016 and 2017, this could be attributed to the existence of SCEBF. The drop out rate had declined between the said period. The study also discovered that majority of students (68.6%) had been sent home due to non-payment of fees compared to the 31.4% who had not been sent home for fees, clearly depicting that access to secondary school was significantly affected by lack of finances reflected by high rate of students being sent home

for fees. Majority of students (59.5%) have been applying for SCEBF as their parents could not pay all fees, the remaining (40.5%) did not apply every year after missing to get in some years this made them to give up. The number of students beneficiaries of the scheme dropping out from school kept on decreasing with the least being 7 girls in the year 2016.

5.3 Conclusions

Based on the foregoing findings, the following conclusions were arrived at in view of the objective set.

5.3.1 Determine the award of SCEBF to the needy secondary school Students in Siaya County

The SCEBF benefits majority of needy students as its allocated based on the needs of applicants however there are some students with good economic background who also managed to get. Although needy students benefit, the award was not enough to cater for all the financial needs for a student in a secondary school. Majority of meriting student do not receive bursary due to lack of enough funds. Orphans and other needy students benefited from the County Bursary Fund more than other students.

5.3.2 Establish the extent to which SCEBF allocation to the recipient is equitably distributed in Siaya County

SCEBF allocation to the recipient was not equitably distributed in all the county wards due to lack of enough funds, politicians influencing allocation, corruption and nepotism. This means that the bursary fund failed to enhance equity in its allocation. From the Lorenz curve, gini coefficient was calculated at 0.39 implying that the fund was not equitably distributed in all the county wards in Siaya County.

5.3.3 Determine the access rate in secondary school education in Siaya county after the establishment of SCEBF

Access rate in secondary school education after the establishment of SCEBF increased as many students enrolled especially those from poor socio-economic background as the funds catered for part of their school fees, the enrollment was steady since the inception of this bursary scheme in the year 2013 with the an average increase of 8.3% and highest increase of 9.4% between 2016-2017. The number of drop outs who received SCEBF decreased although the number of girls dropping out was more that that for boys.

5.4. Recommendations

Based on the findings and conclusions of this study, which revealed that SCEBF benefited majority of the needy students as it was allocated based on applicants needs, that the fund was not equitably distributed in all the county wards and the fund aided to improve access to secondary school, the study made the following recommendations:

- i. More funds to be allocated for the county education bursaries. This will ensure that all needy students receive the fund to cater for their education.
- ii. Proper mechanisms free from politics, corruption and nepotism should be established for equitable distribution of funds in all deserving areas.
- iii. There is need to enhance efficiency and fairness in the management of the bursary fund. The SCEBF members should be people of integrity to avoid cases of flawed vetting process.

5.5. Suggestions for further study

Other issues emanated from the study that requires further investigation. The following are the areas that need further research;

- i. Influence of SCEBF on students' participation in education.
- ii. A replica of the study should be carried out in a higher economical potential areas

REFERENCES

- Ahmed, M. Ahmed, K.S Khan, N.I. and Ahmed, R. (2007). *Access to Education* Bangladesh.
- Armstrong, M., & Allan, P. (2009). *Education as a Catalyst to Development*. London: Macmillan
- Atkinson, G. B. J. (1993). *The Economics of Education*. London. Hodder and Staughton.
- Ayiga, N. (1991). *Causes of Low Enrolment and High Dropout Rates in Primary Education in Uganda*. Abridged Research Report.
- Ayot, N. & Briggs, H. (1992). *Economics of Education*. Nairobi: E.A.P
- Baumol, J. W, Blinder, S.A (1979). *Economics, Principles and Policy*. NewYork: Harcourt Brace jovanovich, Inc. Brace
- Bell, J. (1993). *Doing your research Project: A guide for first time research in education and social sciences*, 2nd edition, Buckingham, Open University Press.
- Best, W.J. & Khan, J.V. (2008). *Research in education*. (7th Edition) New Delhi Prentice Hall Private Limited.
- Bray, M. (2000). *Financing Higher Education, Partners, Trends and options. Prospects Quarterly Review of Comparative education*.No115, vol.3, Paris: UNESCO
- Cohen, L. & Manion, L. (1992). *Research methods in education*. London: Rutledge.
- Coombs, P. H. (1968). *Educational crisis: A system analysis*. Paris: UNESCO
- Dalen, D. B. (1979). *Understanding Educational Research. An introduction*. New York Mc' Grohill, inc
- Edusave Merit Bursary. (2012). *Ministry of education. Singapore Britain*.
[Http://www.moe.gov.sg/initiatives/edusave/funds-grants-awards/](http://www.moe.gov.sg/initiatives/edusave/funds-grants-awards/).
- Gay, L. (1996): *Educational Research, Competences for Analysis and Application* Charles E. Merrill Publishing Company.
- Gray, D. E. (2004). *Doing Research in the Real World*: London: Sage Publications

- Government of Kenya, (2008). *President Kibaki Launches Subsidized Secondary Education*, Nairobi: Government printer.
- Government of Kenya, (2003). *The Constituencies Development Fund Act*. Nairobi. Government Printer
- Government of Malawi, (2015). *National Plan of Action for Vulnerable Children in Malawi* (NOVOC). Government Printers.
- Government of Uganda, (2010). *Appraisal report: Updated Education Sector Strategic Plan, 2010-2015*. Kampala. Government printer.
- Inter-Development Bank, (1978). *Annual Report*.
- IPAR, (2008) *Public Expenditure Tracking of Secondary Education Bursary Scheme in Kenya*. Nairobi.
- Israel, G. D. 1992. *Sampling the Evidence Of Extension Program Impact*. Program Evaluation and Organizational Development, IFAS, University of Florida.
- Johnstone, D. Bruce. (1972). *New Patterns for College Lending: Income Contingent Loans*. New York: Teachers College Press.
- Kelinger, F. (1973). *Foundations of Behavioral Research*. (2nd Ed.) New York: Holt Rinehart and Winston Inc.
- Kenya National Bureau of Statistics (KNBS)-2013.
- Kiage, J. M. (2003). *Effects of cost-sharing policy on secondary school enrolment in Nyamira District*. Unpublished Thesis. Maseno University.
- Kimenyi, S.M. (2005). *Efficiency and Efficacy of Kenya's Constituency Development Fund. Theory and Evidence*. Connecticut: University of Connecticut.
- KIPPRA. (2007): *Secondary School Education Bursary Fund (SEBF)*: URL accessed on 09/12/2011.<http://www.kippra.org/Secondary.asp>
- Kodindo, R. J. O. (2006). *Contribution of Local Authorities in financing pre-school education in Siaya District*. Unpublished Med proposal: Maseno University.

- Lewin, K. M. (2003). *Investigating the missing link: The case for expanded secondary schooling in Sub-Saharan Africa*. Association for the Development of Education in Africa (ADEA). Biennial: Mauritius
- Lumuli, N.C.(2009). *An Investigation into Internal Efficiency Measures in promotion of Access and Completion Rates in Public Secondary Schools in Bungoma South District*. Unpublished M.Ed Thesis, University of Nairobi.
- Maeke, E. (2009). *School Shake up: Case Study of Moi Girls Marsabit*. www.changemakers.com. Retrieved on 17.12.2009
- Mellen, M. O. (2004). *The role of Government bursary fund in enhancing the participation of girls in secondary education in Nyamira District, Kenya*; Unpublished M.Ed Thesis, Kenyatta University.
- Ministry of Education. (2005). *Clarification on disbursement of secondary schools bursaries*. Circular Letter, Ref. No. Sl.9/17/155. Nairobi: Government Printer.
- Ministry of Education. (2009). *Education facts and figures*: Nairobi: Government Printers
- Ministry of Education. (2012). *Secondary scheme Bursary fund*. Nairobi. Ministry of Education
- MoEST. (2015). *New Fee Guidelines for Secondary School*. Government Printers
- Mirigat. (2003) *Facilitating secondary education, Kenyan Scenario: a case of Government Bursary Fund*.
- Moon, B. & Mayes, A. (1994). *Teaching and Learning in Secondary School*. London: Routledge.
- Mugenda, O. M. Mugenda, A. G. (2007) *Qualitative and Quantitative approaches*. Nairobi. Acts press.
- Mulusa, T. (1990). *Evaluating: Education and Community Development Programmes*. Nairobi CADE, University of Nairobi

- Mwangi, W. (2006). *Resolve Row over Bursary*. Daily Nation. Nairobi: October 7TH 2006
- Mwaura, C. (2006). *Role of Government bursary scheme in enhancing secondary school participation of the poor and the vulnerable learners in Thika District*; Unpublished M.Ed. Thesis, Kenyatta University.
- Nduva, V. (2004). *The Constituency Bursary Fund*. The Link Magazine. Nairobi: Vol. 004. pp. 16-17.
- Ngware, M. Onsomu, E. N., Muthaka D & Kosimbei, G. (2006). *Financing of Secondary Education in Kenya: Costs and Options*. Institute for Public Policy Research And Analysis –Discuss Paper No. 55 Nairobi.
- Njeru, E. H. C and Orodho, A. (2003) *Secondary School Bursary Scheme Implementation and Challenges*. IPAR Discussion Paper Series No. 036/2003.
- Njeru, E, and Orodho, J. A (2003). *Access and participation in secondary school Education in Kenya: Emerging issues and policy implications*, IPAR DP 037/2003, Nairobi; Regal Press Kenya Ltd.
- Nyakeri, B. (2011). *Analysis of the Effects of Subsidized Secondary School Education on Access and Participation: A case study of Manga District, Nyamira County*. Unpublished Research Project, Kenyatta University.
- Odalo, B. (2000). “*What makes Makueni District Tick?*” Daily Nation: Jan 3rd 2000.
- Olembo, J. O, (1985). *Financing of Secondary Education in Kenya*.B.E.R. Seminar paper, Kenyatta University.
- Odebero, O .S (2002). *Bursary as a method of financing secondary school education in Busia District-Kenya*. Unpublished Med Thesis: Maseno University.
- Odundo, P. & Rambo, C.M. (2006). *Factors that influence learner’s perception on affordability of the distance learning programme at the University of Nairobi*. The Fountain, a journal of the School of Education. Nairobi 4(1)

- Onyango, D. Njue, J. (2004). *Rising Protests over Constituency Fund*.
The East African Standard. Nairobi: September 19th 2004
- Opon, C. (2007). *Towards an integrated decentralization policy in Kenya*.
Unpublished PHD Thesis Kenyatta University.
- Orodho, J. A. and Njeru, E. H. N. (2003). *Education Financing in Kenya: The Secondary School Bursary Scheme*. Institute of Policy Analysis and Research. - Discussion Paper No. 35. Nairobi.
- Orodho, J. A. (2005a). *Technique of writing Research Proposal and Report to Education & Social Sciences* (2nd Ed). Nairobi: Kaneza H. P. enterprises.
- Oso, W. & Onen, D. (2008). *Introduction to writing research proposal*. Kisumu Option Private and Publishers.
- Otieno, K. O. (2011) *Contribution of Constituency Development Fund to Access and Equity in Financing Secondary Education in Nyando District, Kenya*. Unpublished Med Thesis: Maseno University.
- Oyugi, L. (2010). *Public expenditure tracking of secondary education bursary scheme in Kenya*, Nairobi Institute of Policy Analysis and Research IPAR.
- Psacharopoulos, G. & Woodhall, M (1985) *Education for Development. An analysis of investment choices*. Washington. D. C. Oxford University Press.
- Republic of Kenya. (2004). *The Constituency Development Fund Act* .2003.
Nairobi: Government Printer.
- Republic of Kenya. (2005a) *Millennium Development Goals: Status report for Kenya 2005*. Nairobi: Ministry of Planning and National Development.
- Republic of Kenya. (2005a). *Sessional Paper no.1 of 2005: A policy framework for education training and research* .Nairobi: Government Printer.

- Republic of Kenya. (2005b). *Kenya education sector support programme, KESSP (2005-2010)*. Nairobi: Government Printer.
- Republic of Kenya. (2006a). *Economic survey*. Nairobi: Central Bureau of statistics.
- Republic of Kenya. (2006b). *Ministry of Education strategic plan (2006-2011)*. Nairobi: Ministry of Education.
- Republic of Kenya. (2006c). *Annual progress report (2004-2005): Economic recovery strategies*. Nairobi: Ministry of Planning and National Development.
- Republic of Kenya. (2010). *2009 Kenya Population and Housing Census: Population 3 years and above School Attendance Status. EMIS-Population Education Profile 2009*. Nairobi, Government Printers.
- Republic of Kenya. (2013) *Kenya National Bureau of statistics*. Nairobi.
- Republic of Kenya. (2014) *Economic Survey 2014*. Nairobi Government Printers.
- Republic of Kenya. (2016) *Siaya County Gazette Supplement*. Nairobi Government Printers.
- Saunders, M., Lewis, P. & Thornbill, A. (2007). *Research Methods for Business Students*. (4th Edition). London; Prentice Ltd.
- SEIA Report (2007) “*At the Crossroads.*” *Choices for Secondary Education in Sub-Saharan Africa*. (Pdf).
- Siaya County Social Audit Report-2014.
- Siringi, S. (2006). *Grand Plan to check high Dropout Rate of poor students*. Daily Nation, December 4th, 2006. Nairobi: Kenya.
- State of Saskatchewan. (1997). *Our children, our communities and our future: Equity in education: A policy framework*. Retrieved June 4, 2007, <http://www.sasked.gov.sk.ca/index.html>.
- Sutherland –Addy, (2008). *Financing Girls Education in Africa. An Analysis of Students Retention in school*. New York; Oxford University Press

Status Report on Basic Education Training and Service Delivery 2013/2014- County Education Board-Siaya.

Stoikov, V. (1970). *The economics of recurrent education and training*. Geneva: ILO.

Todaro, P. M., & Smith, C. S. (2006). *Economic Development*. 9th edition. England: Pearson Education LTD.

Unesco.(1990). *Report on World Conference on Education For All (EFA) in Jomtien*. Thailand. Paris. UNESCO

UNESCO. (2007) *E.F.A Global monitoring report*. Paris: UNESCO

US General Accounting Office. (1997). *School Finance*. Retrieved June 13, 2007, <http://portat.unesco.org/education/en/ev.php>

Veepoor, A. (2007). *At the crossroads choices for Secondary Education and Training from www.iiep.UNESCO.org*. on 14th January 2009.

Veriava, F. (2005) 'Free to Learn: A discussion paper on the School Fee Exemption Policy,' in A. Leatt and S. Rosa (Eds) *Targeting poverty alleviation to make children's rights real*. (pp. 267-291). Cape Town: Children's Institute.

Wachiye, H. and Nasongo, J. (2010). *Access to secondary education through the constituency bursary fund in Kandui constituency in Kenya*

World Bank. (1994). *Annual Report*. Washington: World Bank.

World Bank, (2005). *Challenges facing Bursary Fund in the Sub Saharan Africa*.

Nairobi: World Bank. Retrieved on 23rd July, 2010 from <http://www.worldbank.org/ke>

World Bank. (2006). *Draft Report on Financing Education in Developing Countries*. Strategies for Sustainable Growth. New York.

World Bank (2007): World Development Report available at

www.worldbank.org/external/def

APPENDICES

APPENDIX A: PRINCIPALS' QUESTIONNAIRE

This questionnaire is intended to seek more information on the utilization of Siaya County Educational Bursary Funds. Answer the questions by either putting a tick(✓) or writing your responses on the spaces provided. confidentiality will be upheld.

SECTION A. GENERAL SCHOOL INFORMATION.

1. Name of the school.....

Name of the County Ward where the school is located.....

Enrolment: Boys.....Gils.....Total.....

2. Fill in the number of students enrolled in your school in the following years.

Form	Sex	2013	2014	2015	2016	2017
Form 1	Boys					
	Girls					
Form 2	Boys					
	Girls					
Form 3	Boys					
	Girls					
Form 4	Boys					
	Girls					
Total boys						
Total girls						
Total						

SECTION B: SCEBF INFORMATION

1. How much money in Kenya Shillings has the school received from SCEBF in the following years?

YEAR	AMOUNT(Ksh)
2013	
2014	
2015	
2016	
2017	
TOTAL	

2. Was this award sufficient to cater for the bursary need in your school for each year?

Yes () No ()

3. Indicate the amount disbursed per class per year, the number of bursary recipient per class per year and bursary shortfall per year. Show also the number of needy cases but did not receive the bursary. (put your answer in the table below)

Year	Form	No of meriting cases for bursary.	No.of bursary recipients	Disbursed amount per form(Ksh)	Shortfall in Ksh.
2013	1				
	2				
	3				
	4				
2014	1				
	2				
	3				
	4				
2015	1				
	2				
	3				
	4				
2016	1				
	2				
	3				
	4				
2017	1				
	2				
	3				
	4				

4. In your opinion, has the Siaya County Educational Bursary Fund increased access to secondary education by children from poor socio-economic background?.....

.....

.....

.....

5. Are there instances where the SCEBF recipient drop out of school because they can't raise the remaining fees?

Yes () No () If so, give details as follows:

Year	Number of drop outs	
	BOYS	GIRLS
2013		
2014		
2015		
2016		
2017		

6. Comparatively, have orphans and other needy students benefited from the County Bursary Fund than other students in the school?

Yes () No ()

7. In your opinion, has SCEBF been awarded according to the level of need of the students

Yes () No ()

a) If yes, explain.....

.....

b) If no, why?.....

.....

Thank you for accepting to participate in the research.

APPENDIX B: STUDENTS QUESTIONNAIRE

I am carrying out a study on the contribution of County Bursary Funds on access and equity in financing secondary education in Siaya County. You are requested to assist by giving out information on County Bursary Fund and Secondary education. The information you will give is purely for academic purposes and no information whatsoever shall be used for other purposes or disclosed to any other person.

Section A. Student's personal information.

Please fill the required information by ticking (✓) in the provided spaces.

1. What is your sex Male () Female ()

2. What is your present form?

Form 1 () Form 2 () Form 3 () Form 4 ()

3. What is your school type?

a) Boys boarding () b) Girls boarding () c) Mixed boarding ()

d) Mixed day () e) Girls day () f) Boys day ()

4. What is the school category?

a) National () b) Extra-County () c) County () d) Sub-County ()

5. Please indicate the status of the family.

Have both parents () Have one parent () No parent ()

6. What was the highest level of education reached by your (a) Father/Guardian?

1) Primary () 2) Secondary () 3) Post Secondary () 4) University () 5) Others (specify).....

b) Mother?

1) Primary () 2) Secondary () 3) Post Secondary () 4) University () 5) Others (specify).....

7. Who pays for your school fees?

Parent () Guardian () Others (specify).....

8. Please indicate the parent/ guardian's occupation;

Employed () Self employed () Not employed ()

9. Do you have brothers or sisters in the following level of education?

Primary school Yes() No ()

Secondary School Yes() No ()

College or University Yes () No ()

10. Who pays their fees? (specify).....

.....

Section B. Data on students SCEBF.

Please fill the required information in the spaces provided

1. How much is your school fee per year? ksh.....

2. Have you ever been sent away from school because of fees? Yes.() No.()

3. Apart from school fees, on what other needs do you spend money on for your education

Pocket money Yes () No ()

Transport Yes () No ()

Uniform Yes () No ()

Other needs (specify).....

.....

4. Fill in the approximate expenditure per year on the following needs.

Financial need	Approximate amount per year
Pocket money	
Transport	
Uniform	
Other needs	

5. Is your parent/guardian able to pay all your school fees and your financial needs?

Yes () No ()

6.a) If No, have you been applying for SCEBF every year?

Yes () No ()

b) If No, in(5a.) why?.....

.....

b. If yes, how much money did you apply for and how much did you receive.

Year	Class	Annual fees	Bursary applied	Bursary given	Fee balance
	Form 1				
	Form 2.				
	Form 3.				
	Form 4.				

7(a) Apart from SCEBF, have you also received bursary from other bursary schemes available? Yes () No ().

b) If Yes, in (7a) how much did you receive from the scheme?

Class	Bursary scheme	Amount received in Ksh	Fee balance in Ksh
Form 1			
Form 2			
Form 3			
Form 4			

Thank you for assistance and cooperation.

APPENDIX C:

COUNTY EXECUTIVE COMMITTEE MEMBER FOR EDUCATION AND WARD ADMINISTRATORSINTERVIEW SCHEDULE.

Opening remarks

This is an academic MED research interview schedule whose purpose is to determine contribution of county bursary fund on access and equity in financing public secondary school education in Siaya County, Kenya. You are identified as a key resource person towards the achievement of this purpose and therefore requested to be as honest as possible in your answers, confidentiality will be highly guaranteed since your response will be used for the purpose of the study only.

1. What is the average amount of money given to needy students as bursaries?
2. What method do you use to ensure that only needy students benefit?
3. Is the bursary allocation to the needy students timely disbursed to schools?
4. Are there any conditions of getting the bursary apart from the student level of need?
5. What problem do you encounter while administering the students bursary?
6. What steps are you undertaking to alleviate the foregoing problems?

Thank you for co-operating

APPENDIX D: DOCUMENT ANALYSIS GUIDE

The researcher undertook to analyse the relevant documents to establish enrolments, amount of money schools received as bursary from the SCEBF, guiding procedure document on selection of beneficiaries, minutes of bursary meetings and number of drop outs among beneficiaries of the scheme. These documents were found in public secondary schools in Siaya county ward administrators offices and at the CECM for education office.

	Document	Information
1	County Bursary Forms	To establish the needed information from the applicants.
2	Records of beneficiaries	To know the number of beneficiaries and their respective county wards.
3	Minutes of bursary committee meetings	To know the procedure of selecting beneficiaries.
4	School enrolments	To establish increase and decrease in enrolments in selected secondary schools.
5	Number of drop-outs	To establish drop out among the beneficiaries of the scheme.

APPENDIX E: KEY TO SCORE CODES FOR SOCIO ECONOMIC BACKGROUND INDICATORS

A) Type of parenthooh

Dual parenthood	3
Single parenthood	2
No parenthood	1

B) Payer of fees

Parent	3
Guardian	2
Sponsor	1

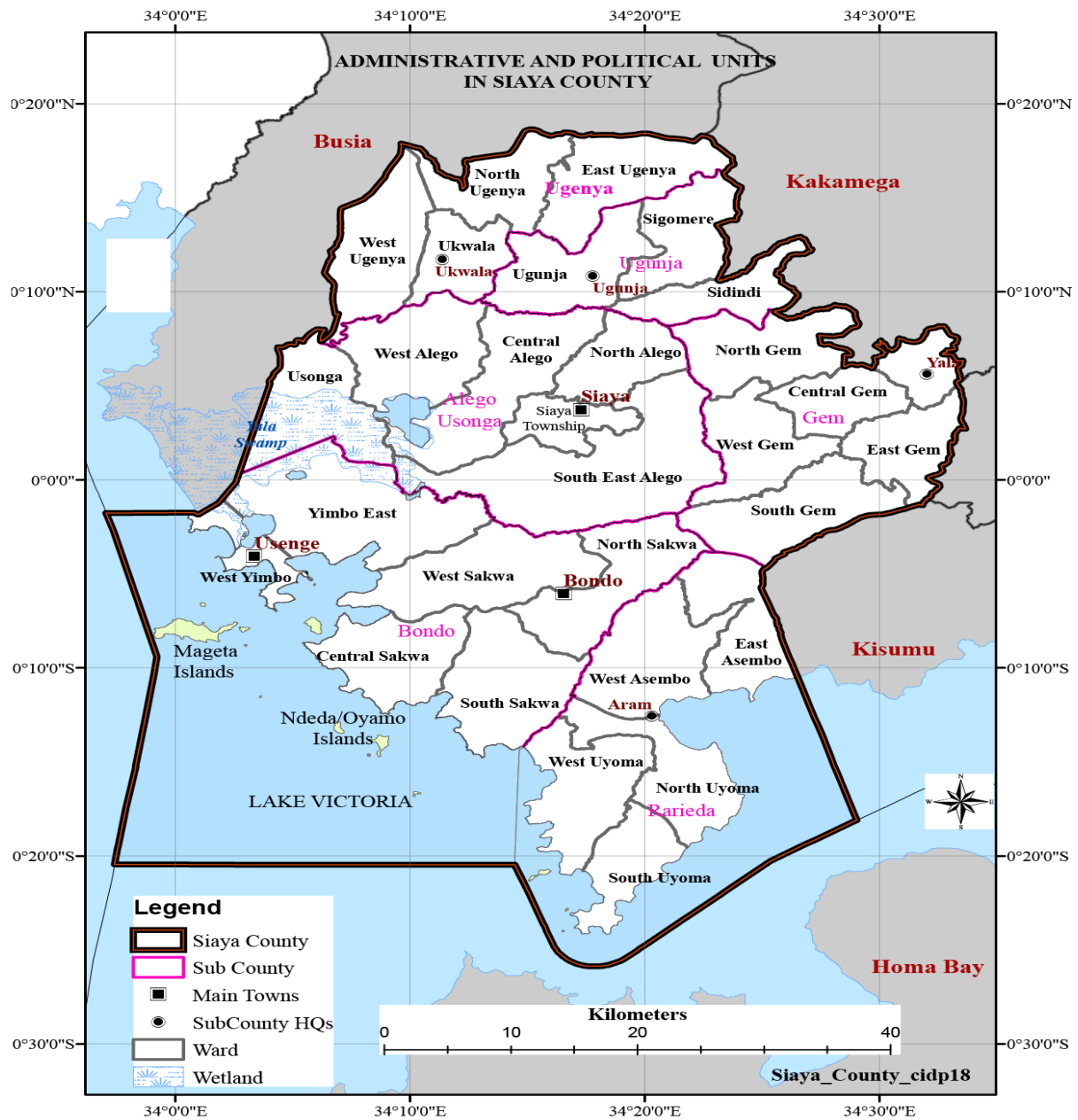
C) Occupation of payer of fees

Employed	3
Self Employed	2
Not employed	1

D) Level of education of parent/guardian

Degree	4
Diploma	3
Certificate	2
Primary	1

APPENDIX F: SIAYA COUNTY MAP



APPENDIX G: RESEARCH PERMIT



MASENO UNIVERSITY ETHICS REVIEW COMMITTEE

Tel: +254 057 351 622 Ext: 3050
Fax: +254 057 351 221

Private Bag – 40105, Maseno, Kenya
Email: muerc-secretariate@maseno.ac.ke

FROM: Secretary - MUERC

DATE: 22nd June, 2017

TO: Dickens Ochieng Oketch
PG/MED/0061/2013
Department of Educational Management Foundations
School of Education, Maseno University
P. O. Box, Private Bag, Maseno, Kenya

REF: MSU/DRPI/MUERC/00395/17

RE: Contribution of County Bursary Fund on Access and Equity in Financing Public Secondary School Education in Siaya County, Kenya. Proposal Reference Number MSU/DRPI/MUERC/00395/17

This is to inform you that the Maseno University Ethics Review Committee (MUERC) determined that the ethics issues raised at the initial review were adequately addressed in the revised proposal. Consequently, the study is granted approval for implementation effective this 22nd day of June, 2017 for a period of one (1) year.

Please note that authorization to conduct this study will automatically expire on 21st June, 2018. If you plan to continue with the study beyond this date, please submit an application for continuation approval to the MUERC Secretariat by 22nd May, 2018.

Approval for continuation of the study will be subject to successful submission of an annual progress report that is to reach the MUERC Secretariat by 22nd May, 2018.

Please note that any unanticipated problems resulting from the conduct of this study must be reported to MUERC. You are required to submit any proposed changes to this study to MUERC for review and approval prior to initiation. Please advise MUERC when the study is completed or discontinued.

Thank you.


Dr. Bonuke Anyona,
Secretary,
Maseno University Ethics Review Committee

Cc: Chairman,
Maseno University Ethics Review Committee.

MASENO UNIVERSITY IS ISO 9001:2008 CERTIFIED

