SOCIO-ECONOMIC FACTORS ASSOCIATED WITH RETENTION AND GRADUATION RATES IN THE CONTEXT OF TUITION WAIVER FUND: KIAMBU COUNTY, KENYA

JANE WAMBUI GATHURU
E55/CE/14031/09

A PROJECT REPORT SUBMITTED TO THE SCHOOL OF EDUCATION IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION OF KENYATTA UNIVERSITY

NOVEMBER, 2014
DECLARATION

This project is my original work and has not been presented for examination in any other university.

................................................. Date: ..............................

Jane Wambui Gathuru

E55/CE/14031/09

This project has been submitted for examination with our approval as the University Supervisor(s).

................................................. Date: ..............................

Dr. John ndiritu

Lecturer,
Department of Educational Management,
Policy and Curriculum Studies,
Kenyatta University

................................................. Date: ..............................

Dr. Mary Otieno

Lecturer,
Department of Educational Management,
Policy and Curriculum Studies,
Kenyatta University

DEDICATION
To the members of my family for their support, love and encouragement throughout my study period
ACKNOWLEDGEMENTS

Special thanks to the Almighty God for His love and providence.

I wish to articulate my earnest appreciation to my supervisors Dr. John Ndiritu and Dr. Mary Otieno for their help throughout my studies. Mr. Antony D. Bojana deserves appreciation for proofreading and editing the final work.

I wish also to acknowledge my respondents, the headteachers, the County Education Officer and the Quality Assurance and Standard Officers from Kiambu County for taking their time to respond to the questions in the questionnaires; without whose co-operation this study could not have been successfully completed. Special thanks go to all those who assisted in editing and typesetting this work.

God bless you all.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>i</td>
</tr>
<tr>
<td>Declaration</td>
<td>ii</td>
</tr>
<tr>
<td>Dedication</td>
<td>iii</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>iv</td>
</tr>
<tr>
<td>List of Tables</td>
<td>viii</td>
</tr>
<tr>
<td>List of Figures</td>
<td>x</td>
</tr>
<tr>
<td>Abbreviations and Acronyms</td>
<td>xi</td>
</tr>
<tr>
<td>Abstract</td>
<td>xii</td>
</tr>
</tbody>
</table>

## CHAPTER ONE: INTRODUCTION

1.1 Background to the Study ................................................. 1
1.2 Statement of the Problem .............................................. 4
1.3 Purpose of the Study .................................................. 5
1.4 Objectives of the Study ............................................. 5
1.5 Research Questions ................................................... 5
1.6 Significance of the Study ............................................ 6
1.7 Limitations .................................................................... 7
1.8 Delimitations .................................................................. 7
1.9 Assumptions of the Study ............................................... 7
1.10 Theoretical Framework ................................................ 7
1.11 Conceptual Framework .................................................. 8
1.12 Definition of Operational Terms .................................... 10

## CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction .................................................................. 11
2.2 Secondary Education in Kenya ...................................... 11
2.3 Impact of Free Secondary Education on Access And Retention ........ 13
2.4 Extent to Which Parental Level of Education Affects Retention and Graduation 14
2.5 Effects of Parental Income on Retention and Graduation .............. 16
2.6 Influence of Home-School Relations on Retention and Graduation ........ 18
2.7 Enrolment, Access and Retention Rates ................................ 21
2.8 Summary of Literature Review ..................................... 24
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction.................................................................................................................. 26
3.2 Research Design.............................................................................................................. 26
3.3 Locale of the Study and Rationale .................................................................................. 26
3.4 Target Population.......................................................................................................... 28
3.5 Sample and Sampling Procedures................................................................................ 28
3.6 Data Collection Instruments ...................................................................................... 29
   3.6.1 Questionnaire ........................................................................................................ 29
   3.6.2 Interview Schedules .............................................................................................. 30
3.7 Pilot Study .................................................................................................................. 30
   3.7.1 Validity of Research Instruments ........................................................................ 30
   3.7.2 Reliability of Research Instruments ...................................................................... 31
3.8 Data Collection Procedures ....................................................................................... 32
3.9 Data Analysis Procedures ......................................................................................... 32
   3.9.1 Quantitative Data ................................................................................................. 32
   3.9.2 Qualitative Data .................................................................................................. 33
3.10 Ethical Considerations ............................................................................................... 33

CHAPTER FOUR: DATA ANALYSIS, PRESENTATIONS AND DISCUSSIONS

4.1 Introduction.................................................................................................................. 34
4.2 Impact of Tuition Waiver Fund on, Retention and Graduation ................................... 34
4.3 Extent to Which Parental Level of Education Affects Retention and Graduation .......... 39
4.4 Effects of Parental Income on Retention and Graduation ........................................... 45
4.5 Influence of Home-School Relations on Retention and Graduation ............................ 50
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction .......................................................................................................................... 57
5.2 Summary of the Study Findings .......................................................................................... 57
5.3 Conclusion ............................................................................................................................. 60
5.4 Recommendations of the Study ......................................................................................... 61
5.5 Suggestions for Further Studies ......................................................................................... 62
REFERENCES ............................................................................................................................. 63

APPENDICES

Appendix A: Questionnaire for headteachers .......................................................................... 68
Appendix B: Interview schedule for key informants (CEO, QASOs) .......................................... 72
Appendix C: Research Permit ..................................................................................................... 73
LIST OF TABLES

Table 3.1: Sampling frame for schools.................................................................28
Table 3.2: Sampling frame for respondents.........................................................28
Table 4.1: Total number of students who were enrolled in year 2009
and those who completed in year 2012 (graduation rates) .......................37
Table 4.2: Total number of students who dropped out of school from year
2005 to 2012.....................................................................................................................38
Table 4.3: Differences in means on parental level of education and
students graduation rate ..............................................................................................41
Table 4.4: ANOVA statistics on impact of parental level of education
on students’ graduation rate .......................................................................................42
Table 4.5: Mean differences on parental level of education versus students’
retention rate ................................................................................................................43
Table 4.6: ANOVA statistics on impact of parental level of education
on students’ retention ..................................................................................................44
Table 4.7: Income levels of parents across gender ...............................................46
Table 4.8: Mean differences on parental level of income versus students’
graduation rates ..........................................................................................................47
Table 4.9: ANOVA statistics on impact of parental level of income
on students’ graduation ...............................................................................................48
Table 4.10: Mean difference on parental level of income versus students’
Retention .........................................................................................................................49
Table 4.11: ANOVA statistics on impact of parental level of income
on students’ retention ..................................................................................................49
Table 4.12: Principals’ responses on influence of home-school relations on
retention and graduation .............................................................................................51
Table 4.13: Overall home-school relations ............................................................52
Table 4.14: Home-school relations across graduation rates for students ..........53
Table 4.15: ANOVA statistics on influence of home-school relations
on students’ graduation ...............................................................................................54
Table 4.16: Home-school relations versus students’ retention in school ............55
Table 4.17: ANOVA statistics on influence of home school relations
on students’ retention in school ................................................................................56
LIST OF FIGURES

Figure 1.1: Socioeconomic factors influencing retention and graduation of secondary school education.................................................................9

Figure 4.1: Average number of students who were enrolled in 2005 and those who completed in 2012 .................................................................35

Figure 4.2: Parents’ education level as reported by principals .........................40
### ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDF</td>
<td>Constituency Development Fund</td>
</tr>
<tr>
<td>CEO</td>
<td>County Education Officer</td>
</tr>
<tr>
<td>DQASO</td>
<td>District Quality Assurance and Standards Officer</td>
</tr>
<tr>
<td>FPE</td>
<td>Free Primary Education</td>
</tr>
<tr>
<td>GoK</td>
<td>Government of Kenya</td>
</tr>
<tr>
<td>KANU</td>
<td>Kenya African National Union</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>MoEST</td>
<td>Ministry of Education, Science and Technology</td>
</tr>
<tr>
<td>NARC</td>
<td>National Alliance Rainbow Coalition</td>
</tr>
<tr>
<td>SEPU</td>
<td>School Equipment Programme Unit</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
</tbody>
</table>
ABSTRACT
Secondary education is an opening to the benefits and opportunities of social and economic development. Demand for acquiring higher levels of education is increasing radically as countries move towards universal primary education, whereas the global Education for All (EFA) effort offers added impetus for the growth and development in secondary education. In the 21st century, secondary education is recognized as the foundation of educational systems. The purpose of the study was to ascertain the socio-economic factors associated with retention and graduation rates in the context of tuition waiver fund in Kiambu County. The aims of the study were to: Ascertain the impact of tuition waiver fund retention and graduation in public secondary schools in Kiambu County; Find out the extent to which parental level of education affects retention and graduation; Find out the effects of parental income on retention and graduation and Find out the influence of home-school relations on retention and graduation in public secondary schools in Kiambu County.

The government of Kenya, through the Ministry of Education, may benefit from the research by gaining data on the impact of tuition waiver fund on retention and graduation rates and the socio-economic factors associated with the same. School administrators may gain data to help them understand the challenges faced in management of tuition waiver fund and thus enable them come up with solutions to such problems. The research was cantered on the Classical Liberal Theory of Equal Opportunity introduced by Sherman and Wood (1982). Descriptive research design was used targeting all the principals in the 218 public secondary schools in Kiambu County. The area county Education Officers and QASO officers were also targeted. Stratified sampling was used to select 44 out of 218 schools. Participating schools were stratified according to school category (national, County and CDF schools) and school type (boys only, girls only, mixed day and mixed boarding schools). Another sampling method that was employed is purposive sampling in order to select 44 principals from the sampled schools, two County education officers and two QASO officers, resulting to a total of 48 participants. Principals’ questionnaires and interview schedules designed for the CEO and QASO were also targeted. Participating schools were stratified according to school category (national, County and CDF schools) and school type (boys only, girls only, mixed day and mixed boarding schools). The study established that tuition waiver fund had a great impact on students’ retention and graduation rates. Most of the beneficiaries were; learners from low income households, large families and dysfunctional families. Based on the ANOVA test, the study established that parents’ level of income had a considerable effect on students’ graduation rate, F (2, 41) =13.666, p=0.000. Similarly, it was established that parental level of income had a significant influence on students retention in school, F (2, 41) =9.973, p=0.000. This revealed that parental socio-economic factors played a great role in students’ education. The study recommends that the Government should increase funding in schools to include money for infrastructure and development, among other recommendations.
CHAPTER ONE
INTRODUCTION

1.1 Background to the Study

After Kenya became an independent country in the year 1963, the Government, families and the private sector jointly endeavored to improve the growth and improvement of level of education in the country. The speedy development of training and education in Kenya was a ramification of the *Sessional Paper No. 10 of 1965 on African Socialism and Its Application to Planning in Kenya* (Republic of Kenya, 1965), which stressed on fighting ignorance, poverty and disease. It was centered on two ancient issues that: (i) all Kenyan children, regardless of gender, ethnicity, and religion has the unchallengeable right to get critical wellbeing provision, as well as education; and (ii) the government of Kenya has an responsibility to offer opportunity to all people in the country in order to fully contribute in political and socio-economic growth of the country and also to enable people develop their welfare (Republic of Kenya, 2005).

Secondary education is an opening to the benefits and opportunity of social and economic development. Demand for acquiring higher levels of education is increasing considerably as countries move towards universal primary education, whereas the global Education for All (EFA) effort offers added impetus for the growth and development in secondary education. Additionally, globalization and the rising demand for a more refined labourforce, together with the growth of knowledge-centered economies, offers a sense of necessity to the increased demand for secondary education (World Bank, 2009).
In the current world, secondary school education has a crucial mission - one that merges the policy eccentricity of being at the same time preparatory and terminal, compulsory and post-compulsory, homogeneous and diverse, general and occupational (World Bank, 2009). In the 21st century, secondary education is recognized as the foundation of educational systems. Quality secondary education is essential in ensuring bright future for people and nations alike.

There has been a rapidly increasing demand for secondary school education in nearly all African nations. Verspoor (2008) maintains that between the years 1999 and 2005, registration of pupil in class one raised by approximately 40%; adding that although endurance rates have continued being stable up to now, this still entail a very huge augment in the number of people graduating in primary school that are looking for a place in secondary school. With raising rates of completion, the number of people graduating from primary institutions of education could even increase by more than twice by 2020 in most countries in Sub-Saharan region (Verspoor, 2008). This result into a massive challenge for secondary school education policy which requires created not only to meet inevitable speedy augment in demand for admission but as well to offer the mode of teaching and learning required to ensure the supply of human resources with higher levels of training and education demanded by a budding and making the economy as modern as possible. Seceding from the low growth balance that has typified different African economies for an extended period will entail continued investment in the advance of human resources, together with most notably secondary education (Verspoor, 2008).

Since Kenya attained her independence in 1963, the government has continued to invest heavily on education. The education sector, in Kenya, obtained the biggest (and increasing) share of public spending. The overall education spending as percentage of
GDP increased from about 6.2% in 2002/03 financial year to about 6.5% in 2007/08 financial year. Nevertheless, the volume of the funds goes to recurring spending (primarily payment of salaries and wages). For instance, in 2007/08 financial year, 96.5% of the total expenses were recurring, up from approximately 91% in the previous year. Averagely, the overall wage bill is about 85% of the entirety education budget (KIPPRA, 2009).

The devotion of the government to expansion of education culminated in the opening of Free Primary Education (FPE) in the year 2003 and tuition waiver support for public secondary schools in the year 2008. While provision of tuition waiver fund is seen as a positive move towards achievement of equity in the provision of secondary education, there are distresses about the influence of the programme on quality of education, especially based on analyses of the challenges of FPE implementation. For instance, UNESCO (2005), based on an evaluation of the FPE programme in Kenya in the year 2005, established that some of the key challenges attending to FPE were increase in the number of student; lack of solid strategy on admission; scarcity of teachers; inadequate involvement of parents and teachers; impediment in payment of finances by the government; and extended roles for principals and headteachers. If these findings by UNESCO are anything to go by, then we may expect that the implementation of tuition waiver fund is to be faced with major challenges that have a direct impact on quality.

Since independence, improvement of education has been characterized by different changes and difficulties (IPAR, 2003). Therefore, for almost four decades, the education sector has gone through numerous reviews by exceptional commissions and other parties selected by the government, with the intention of increasing
effectiveness and efficiency of the education prerequisite (Nyaga, 2005). This culminated in the government introducing free primary school education in the year 2003. To enable the pupils benefiting from FPE to access secondary school education, the government started providing tuition waiver fund for secondary education in 2008 (Ohba, 2009). The launch of tuition waiver fund was meant to deal with low quality education, illiteracy, high cost of education, low completion rates at the secondary school level, and poor society participation (Oyaro, 2008). The government is expected to provide the tuition fees in schools while the parents and guardian are required to meet other necessity like transport, lunch and boarding charges for the students in boarding schools, in addition to construction projects. This is in proportion to the government obligation to ensure that gender disparities and local special needs are dealt with. These efforts are aimed at the attainment of the Education for All and MDGs (Republic of Kenya, 2007). This study, therefore, sought to determine the impact of tuition waiver fund on retention and graduation in public secondary schools in Kiambu County. The research was a comparative study of 2005 - 2008 cohorts that did not benefit form tuition waiver fund and 2009 – 2012 cohorts that benefited from tuition waiver money. So far, there is limited literature on the impact that tuition waiver fund has had on retention and graduation especially in Kiambu County.

1.2 Statement of the Problem
Statistics from the Education Office, Kiambu County (2011) show that despite the introduction of tuition waiver fund by the government, the number of students who complete the stipulated number of years for secondary education in Kiambu County is low compared to those who enrol. The dropout rate is estimated to be 25%. This is an indication that even with the introduction of tuition waiver fund, the government objective of increasing completion rates at this level may not be achieved.
Consequently, this research sought to discover the socio-economic factors associated with retention and graduation rates in Kiambu County in the context of tuition waiver fund. By finding out the retention and graduation rates after the introduction of tuition waiver fund, and comparing such data with that for the period before introduction of tuition waiver fund, it is possible to establish the impact of the fund retention and graduation. This way, it was possible to find out the contribution of other factors (other than fees) on retention and graduation rates. Such information is useful for education planning and policy formulation, with a view to increasing retention and graduation rates at the secondary school education.

1.3 Purpose of the Study

The purpose of this research was to determine socio-economic factors associated with retention and graduation rates in the context of tuition waiver fund in Kiambu County, Kenya.

1.4 Objectives of the Study

The aim of this research was to realize the following objectives:

i. To ascertain the impact of tuition waiver fund on retention and graduation in public secondary schools in Kiambu County.

ii. To ascertain the extent to which parental level of education affects retention and graduation in public secondary schools in Kiambu County.

iii. To ascertain the effects of parental income on retention and graduation in public secondary schools in Kiambu County.

iv. To ascertain the influence of home-school relations on retention and graduation in public secondary schools in Kiambu County.
1.5 Research Questions

i. What is the impact of tuition waiver fund on retention and graduation in public secondary schools in Kiambu County?

ii. To what extent does parental level of education affect retention and graduation in public secondary schools in Kiambu County?

iii. What are the effects of parental income on retention and graduation in public secondary schools in Kiambu County?

iv. What is the influence of home-school relations on retention and graduation in public secondary schools in Kiambu County?

1.6 Significance of the Study

Research on socio-economic factors associated with retention and graduation rates in the context of tuition waiver fund in public secondary schools may be of much benefit to the government, the Ministry of Education, school administrators, parents, students and the community in the following ways: Through the Ministry of Education, the government may benefit from the study by gaining data on the impact of tuition waiver fund on retention and graduation rates and the socio-economic factors associated with the same. This could assist the government to understand any other factors that influence education access and retention, thereby designing strategies that would improve tuition waiver fund implementation. School administrators may benefit from the study findings in that they could help them understand the challenges faced in management of tuition waiver fund and thus enable them to come up with solutions to such problems. The study may also enrich the existing body of knowledge on financing secondary education and ensuring equitable distribution of resources for national development.
1.7 Limitations
Due to time limit, the research was undertaken in selected schools in Kiambu County. Therefore, the outcomes of the research may not be generalized to other schools outside Kiambu County.

1.8 Delimitations
i. The study focused only on public secondary schools as they are the beneficiaries of the tuition waiver fund.

ii. There are many other factors which influence retention and graduation but which were not studied. Some of these factors include curriculum structure, standards officers, the role of quality assurance, home-based factors, school-based factors, socio-cultural factors and external interference in school management by politicians and school sponsors. This study only focused on the socio-economic factors influencing retention and graduation.

1.9 Assumptions of the Study
This research was based on the following assumptions:

i. All the participants would be honest in their responses and their responses would give a true reflection of the situation in Kiambu County.

ii. That headteachers, QASO and CEO are aware of the socio-economic factors influencing retention and graduation in secondary education.

iii. The locale of the study would provide adequate information required by the researcher.

1.10 Theoretical Framework
This research was centered on the Classical Liberal Theory of Equal Opportunity introduced by Sherman and Wood (1982), who expressed the view that there should
be equal opportunities in education for all. This theory advances the view that every individual is born with a specific amount of capacity, which to a huge extent is innate and cannot be considerably altered. According to this theory, systems of educational should be designed with a view to removing limitations of any nature (gender, economic, geographic) that hinder children from lower economic background from exploitation of inborn talents which could accelerate social progression (Sherman & Wood, 1982).

The theory demands that opportunities be available for individuals to go through primary and secondary education and this access should be based on individual’s merit and not social backgrounds. This way, education would at least provide equality of economic opportunity whereby all classes, races, and sexes could benefit economically from excellent academic performance (Sherman & Wood, 1982). The theory further maintains that social mobility will be supported by equal opportunity of education. There is evidence that by eliminating barriers to education, creating more vacancies in upper primary and secondary schools, raising length of attendance in school, reducing the cost of education, and narrowing regional and gender disparities, ideal conditions can be created for equal participation in education.

Using Classical Liberal Theory of Equal Opportunity, the researcher found the factors that affect access and retention of students in secondary schools.

1.11 Conceptual Framework

In many developing countries, the major factors affecting retention and graduation rates in Kenya include poverty, child labour, early marriages, pregnancies, parental illiteracy and ignorance (Kagunye, 2004; Theuri, 2004). With the government’s provision of tuition waiver fund, poverty may seem to have been removed from the dropout equation. However, there are still challenges faced with regard to retention
and graduation of students. This study aimed at determining the socio-economic factors influencing retention and graduation in public secondary schools. The conceptual model guiding the study is indicated in Figure 1.1.

Figure 1.1: Socio-Economic factors affecting retention and graduation of secondary school education

Source: Researcher

The aim of the study was to establish the socio-economic factors associated with retention and graduation rates in the context of tuition waiver fund in Kiambu County. Figure 1.1 above shows that retention and graduation could be influenced by tuition waiver fund, parental level of education, parental income and home-school relations. These factors are the independent variables of the study, and they could affect the retention and graduation in secondary education, which is the dependent variable.
1.12 Definition of Terms

**Completion Rates**: The percentage of students who finish up to the last position of a school cycle divided by the total number of students who registered in the grade at the start of the cycle.

**Enrolment Rates**: The number of learners who enrol in a secondary school per year.

**Family Background**: Factors within the family such as parental connection in a child’s education, parental level of education and family size, which may influence pupils to drop out of school.

**Graduation** – Successful completion of secondary schools education with an award of Kenya Certificate of Secondary Education.

**Retention** - Maintaining students in school until the completion of four years of secondary education.

**Socio-Economic Status**: Social background and financial income of a family.

**Tuition Waiver Fund**: This refers a fund of Ksh. 10,265 per student per year given to secondary school by the government. The parents and guardians are expected to provide other necessities like transport, lunch and boarding charges for students in boarding schools, in addition to construction projects.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction
This focus of this chapter is studies carried out relating to retention and graduation rates in secondary education. These studies have been carried out in Africa and overseas.

2.2 Secondary Education in Kenya
During the colonial period, the Kenya’s Education Management was decentralized. The missionaries thus gave different kinds of curriculum. The government of the day ensured that education was based on racial lines, whereby the Europeans got the best education, followed by Asians, Arabs and Africans. Thus, there was segregation in Education – a fact that did not augur well for the Africans who started agitating for proper education not just the three Rs (reading, writing and arithmetic).

In 1963, when Kenya became sovereign state, the ruling party at that time, Kenya African National Union (KANU) introduced the their Manifesto where the government take the responsibility of delivering Universal Free Primary Education in tandem during the Addis Ababa convention of African Ministers that took place in 1960. The convention had pledged to provide Universal Primary Education in twenty years. The Kenyan government, therefore, joined the idea and provided grants in form of equipment through School Equipment Programme Unit (SEPU), this enhanced enrolment rate (MoEST, 2003).

According to Republic of Kenya, 1964 the Kenyan education system has undergone reviews and restructuring through various education commissions. Free primary education was introduced in the year 1974 and later Free Primary Education was done
away with in the mid eighties. A political changeover occurred in Kenya after 2002 elections when KANU lost to NARC. During campaigns, NARC had pledged to provide free primary school education. After winning in December 2002 election, true to its pledge, through MoEST, the government initiated FPE in January of the year 2003. This was in line with expectation of people in a country where a considerable percentage of children were not in school, the reaction was irresistible (Republic of Kenya and United Nations 2003)

In many primary schools, the headteachers found themselves with more pupils to enrol than their faculty could hold. As a result of limited facilities and space, the school heads declined to register some children. Obviously, many parents were upset and they kept on moving from one school to another while searching for places for their children. Given that the government had not set an age limit, ‘over-age’ individuals were registered and this made congestion in schools worse. The initiation of FPE in 2003 resulted into many children enrolling in schools. In an effort to ensure that children graduating from primary schools gain access to secondary schools, the government introduced tuition waiver fund in the year 2008.

According to Republic of Kenya (2007), the government is expected to meet the tuition fees in schools whereas the parents are required to provide other needs like transport, lunch, and boarding charges for students in boarding schools, in addition to development projects. This is in proportion to the government obligation to make sure that gender disparities and regional special requirements are dealt with. These efforts are aimed at the attainment of the Education for All and MDGs (Republic of Kenya, 2007). The study sought to determine the socio-economic factors allied with retention
and graduation rates in Kiambu County in the context of tuition waiver fund in public secondary schools.

2.3 Impact of Free Secondary Education Policy on Access and Retention

According to UNESCO’s evaluation report of FPE in Kenya (UNESCO, 2005), after the initiation of FPE in Kenya in the year 2003, an extra 1.5 million children joined learning institutions for the first time (UNESCO, 2005). The FPE project has been important in enhancing retention, quality and access at the primary level as disseminated by the Ominde Education Report of 1964. The issue that came out for the government was to make sure that students graduating from primary school get admission to secondary education. In order to deal with this problem, the government initiated tuition waiver support of Ksh. 10,265 per child in every year in from the year 2008 promised in the year 2007 election campaigns.

The commencement of the subsidize in the year 2008 was destined to deal with low quality education illiteracy and low number of students graduating from secondary school level, high expenditure of education and inadequate societal contribution (Republic of Kenya, 2005). Different from FPE program, which has orientation to resolutions and literature, massive conventions, tuition waiver subsidize initiative may have been influenced by atmosphere brought about by politics of 2007 general election which shows that the nation was not adequately prepared for its execution. Nevertheless, it was the obligation of the government to amplify switch from primary to secondary school by 70% in all sub-counties (Ohba, 2009).

The government is had to meet the tuition charges of KShs 10,265 for each student, while the parents and guardians are required to meet other necessities like transport, lunch, and boarding fees for students who are in boarding schools, in addition to
development projects. This is in proportion to the government obligation to make sure that gender disparities and regional special needs are dealt with (Ohba, 2009). These initiatives are a constructive move towards the attainment of the Education for All and MDGs. This research, thus, sought to ascertain the impact of tuition waiver fund on progression, retention and graduation rates in public secondary schools.

2.4 Influence of Parental Education on Retention and Graduation

Three decades of study have shown that parent/family participation considerably make participation, in a range of ways, to enhance student results allied with learning and school achievement. These results have been consistent regardless of the fact that households have gone through considerable changes throughout that time, and schools “faction in very different times compared to those of a decade or two before” (Drake, 2000).

A research by Christiansen (2007) explored how relevant parental education is to their children’s education by studying first year college retention as well as first year cumulative grade point ratio. A random sample of 844 students who filled the FAFSA at a southern public university was chosen for the study, after which the summary statistics are analyzed. Following, given that retention is a binary variable, a probity regression was taken to measure significance in relationship to retention. Also, a robust multiple regression analysis was run to measure the impacts of GPR. Tests were also done to see if choosing a certain inter-institutional college has a significantly different effect on retention and GPR, as well as tests of joint significance of differing levels of parental education on retention and GPR. The first set of regressions on retention proved to show significance of parental education, significant at the alpha = .01 level. The mother’s education level in correlation to retention appeared to be a greater probability effect. The second set regressions on
GPR proved similar results - parental education is significant at the alpha = .01 level. On GPR, the father’s education appeared to be the greater effect.

National Center for Education Statistics, (2001) studied about the knowledge of post-secondary students and high school graduates whose parents did not go to college. This research showed that such students are at a distinctive disadvantage in relation to post-secondary access a drawback that continues even after adjusting for other significant factors such as academic preparation, educational anticipations, support from parents and schools in preparing and planning for college, and family returns. Additionally, according to these researches, among those who conquer the barriers to access and register in post-secondary education, learners whose parents did not go to college continue being at a detriment with regard to staying registered and getting a degree (known as perseverance and accomplishment all through this essay). Again organizing for other allied factors, thorough high school course-taking alleviates, but does not entirely fill, the gaps in access and perseverance. For individuals who acquire a bachelor’s degree, labour market products in the short term (but not registration in graduate school) are comparable irrespective of parental education.

A study by Davis-Kean (2005) examined the procedure of how socio-economic status, particularly parental income and education, indirectly affect learner’s academic accomplishment through parents’ behaviors and beliefs. Data from a countrywide, cross-sectional research of students were employed for this research. The subjects were 868 8–12-year-olds, divided roughly evenly across gender (436 females, 433 males). The sample was 47% African American and 49% non-Hispanic European American. Using structural equation modelling methods, the author established that the socio-economic factors were associated indirectly to children’s academic
accomplishment through parents’ behaviors and beliefs but that the procedure of these relations differed by ethnic groups. Parental years of schooling were as well viewed to be a significant socio-economic factor to take into account in both research and policy when examining school-age children.

Glick and Sahn, (2000) examined gender disparities in the determining factor of numerous schooling indicators—current enrolment, grade accomplishment, and withdrawal from school—in a poor metropolitan atmosphere in West Africa, making use of methodical and binary probit models integrating family-level random impacts. They found that household earnings increased led to better investments in girl education but have no considerable effect on boy education. Development in father’s education elevate the education of both daughters and sons (favoring the latter) but mother’s education has considerable impact only on daughters’ education; these estimates are reminiscent of differences in paternal and maternal preferences for educating daughters in relation to sons. Domestic tasks, characterized for instance by the number of very young family member, strongly impose on girl schooling but not on boy. Policies such as sponsored childcare that lessen the opening expenditure of girls’ time in the home may, thus, increase their capability to acquire education. This study sought to ascertain the influence of parental level of education on retention and graduation in public schools in Kiambu County.

2.5 Effects of Parental Income on Retention and Graduation

Education has come to be recognized as a key catalyst to growth and development all over the world. Consequently, both individuals and governments continue to invest heavily in education. At the global level, education is regarded as one of the key catalysts to the attainment of the Millennium Development Goals by 2015. In Kenya
as well as in many other third-word nations, the government has in the last ten years undertaken bold moves aimed at enhancing retention and graduation of education at all levels. In 2003, the Kenyan government introduced FPE which saw enrolment in public primary schools increase from 5.8 million pupils in 2002 to about 10 million pupils by 2010. The Kenyan government also introduced tuition waiver fund in 2008, a move that has seen the primary to secondary school transition rate hit an all time high of 72% by 2010. In the last four years, the government has elevated about 10 middle level colleges to university college status thereby increasing access to higher education. All these moves by the Kenyan government are laudable as they have increased access to education at all levels. However, it is also a fact that quantitative expansion of education could have negative impact on quality if not handled carefully. There have been fears that the government’s focus has been more on quantity than quality. This conference, therefore, comes at a critical time and it may give scholars and policy makers an opportunity to discuss some of the challenges of the quantity-equality trade-off as well as the various reforms and innovations required to address them.

Ohba’s (2009) monograph considers subsidized secondary education and the way it impact on admission to education for the poor people in rural Kenya. Data gathered after the government introduced tuition waiver support show that public schools carry on to levying fees for lunch, boarding equipment and school buildings. Families are also required to offer non-discretionary items for example sports uniforms, school uniforms, stationery, books, etc. The research established that the expenses of the first year planning for day secondary school are approximately eight times the monthly earnings for employed parents or guardians, 12 to 17 times for self-employed parents or guardians and 19 to 20 times for peasant parents involved in casual work. In
boarding schools, the expenses of the first year planning for boarding secondary school are 15 times the monthly earnings for working parents or guardians, 23 to 33 times for entrepreneurial parents or guardians and 38 to 40 times for farmhand parents involved in casual work. The research revealed that poor families continue to face considerable encounters in meeting the expenses of secondary education. Additionally, government bursaries for secondary school education are granted to students who are already registered in secondary schools; children whose families cannot afford the primary and ongoing expenses necessary for even not expensive day secondary schools face considerable tasks in attaining secondary school education.

The paper maintains that government guidelines aiming to improve access to secondary school education for the poor must strive to discover and target communally disadvantaged students who are at the mercy of financial assistance to access secondary school education. The study sought to establish the influence of parental income on retention and graduation in public secondary schools in Kiambu County.

2.6 Influence of Home-School Connections on Retention and Graduation

Home–school relationships are the formal and informal connections between the family and secondary school. Hoffman (1991) quotes positive home-school connections as one of his eight persistent attributes of efficient schools. Recent study shows that positive parental participation plays a key role in influencing results, such as long-term academic accomplishment, higher grades, increases in student retention and attention, and enhances self-esteem and motivation (Lazar, et al., 1999).

Parent, society and family involvement in education associates with higher academic success and school enhancement. When schools, families, parents, and communities
supportive to support learning, pupils have a tendency to attain good grades, go to school more frequently, stay in school longer, and register in higher level programme. Scholars refer to community-family-parent participation as a means to dealing with the school dropout predicament (Belfield & Levin, 2007) and maintain that strong school-family-community organizations promote higher educational ambitions and more encouraged students (Barton, 2003). The indication holds true for students at both the secondary and elementary level, irrespective of the family income, parental education, or circumstantial.

Rasinki and Fredrick (1988) maintain that parents play a priceless role in laying the groundwork for their children’s education. Zang and Carrasquillo (1995) likewise remarked that when students are surrounded by caring, proficient parents and are capable of enjoy nurturing and reasonable competitive relationship, a basis for literacy is created with no complexity. Cotton and Wikelund (2005) capped it by maintaining that the more intensively parents are engaged in their students’ learning; the more valuable are the accomplishment effects. Therefore, it is believed that when parents supervise homework, are active in parents–teacher connection, help children progress plans for their future, and promote participation in extracurricular activities; students are more expected to respond and perform well in school.

Schickedanz (1995) also claim that children of submissive parents were found to register poor academic performance. Ryan (2005) maintained that academic performance is certainly connected to having parents who impose rules at home. The openness of the study outcomes reported in this research is that family participation develops facets of children’s education for example daily attendance, behaviour, student achievement, and motivation (Cotton & Wikelund, 2001).
Epstein (1997) developed a model in that he examined how children learn and develop through three intersecting spheres of influence: school, family, and community. Epstein adds that three spheres must form partnerships to adequately meet the requirements of the child. Epstein (1997) again identified six types of involvement based on the relationships between the family, community and school. These are: communicating, volunteering, parenting skills, collaborating with the community, learning at home, and decision-making. He maintained that these six types of participation must be included to have victorious corporations (between the school and the home).

Chugh (2011) observes the factors that lead to dropping out by students at the secondary school level. The analysis is centered on the empirical study carried out on the marginalized group of students living in slum neighborhood of Delhi, which was carried out during the period from August 2006- July 2007. Results revealed that both the school-related and family factors were accountable and appeared to be extremely connected with each other. It was as well established that adolescents drop out not simply due to financial constraints and poverty but also due to the fact that the schools did not react properly to their special educational requirements forcing them to drop out of school.

Onyango (2001) maintains that head teacher need be conscientious in order to enhance community-school relationships. It is important for head teachers to aspire and promote a good operational association BoGs and PTA. The BoGs comprise associates of the school population. The body is ultimate school administration body whose accountabilities include management of capitals, discipline, physical assets, and making sure the accomplishment of strategy connecting to school education. He
claims that school heads and school principals should get the committee to intimately know the school, to share in its prospects, problems, requirements and accomplishments. Likewise, the headteacher ought to endeavor to work intimately with the PTA. The body is significant means of notifying parents in relation to school undertakings. It is also significant for the headteacher or principal to collaborate with teacher organizations or agencies in the society that renders significant services to the learners in the school. Introduction of tuition waiver fund, there are parents who may feel that the administration is fully accountable for the delivery of secondary education. Head teachers have the challenges of maintaining good operational connections with the society and ensure that they are aggressively involved in school accomplishments. Consequently this research sought to ascertain the inspired of home-school relations on retention and completion in government secondary schools in Kiambu County.

2.7 Enrolment, Access and Retention Rates

According to UNESCO’s evaluation report of FPE in Kenya of year 2005, after the government introduced FPE in Kenya in the year 2003, an extra 1.5 million student were able to attend schools for the first time (UNESCO, 2005). The FPE inventiveness has been important in improving retention, access, and value at the primary level as disseminated by the 1964 Ominde Education Report. The problem that the government had to deal with was to make sure that pupils graduating from primary school are admitted to secondary schools. In order t deal with this challenge, the government came up with tuition waiver subsidize in 2008 as prior pledged in 2007 campaigns.
The commencement of tuition waiver subsidize in 2008 was destined to deal with illiteracy, low completion rates, and low quality education at the secondary level, high expenditures in education and inadequate community contribution (Republic of Kenya, 2005). Different from FPE initiative, which has orientation to huge resolutions, literature, and conventions, tuition waiver subsidize initiative may have been resulted from the electorally charged atmosphere that overwhelmed the nation during the 2007 election which shows that the nation may not have been adequately equipped for its execution. Nevertheless, there was administration pledge to upsurge transition from primary to secondary by about seventy per cent in all sub-counties (Ohba, 2009).

The demand for secondary school education is collective quickly in nearly all SSA nations. Verspoor (2008) observes that between the years 1999 and 2005, intake in primary school, improved by about 40%; maintaining that even though persistence rates have persisted steady up to now, this still means that a very huge improvement in the number of pupils graduating from primary school are looking for a place in secondary school. With growing rates of accomplishment, all pupils graduating from primary school could increase by more than 50% by 2020 in many nations in SSA (Verspoor, 2008). This produces a huge problem for secondary education guidelines which requires to be premeditated not only to react to expected rapid augment in demand for admission but as well to offer the quality of instruction required in ensuring that the provision of workforce with higher levels of training and education necessitated by a modernizing and growing economy. Separated from from the small growth equilibrium that has described most African economies for extended duration will require constant speculation in the development of human resources, as well as most significantly secondary education (Verspoor, 2008).
Retention and graduation to secondary education is a critical issue in Africa. In Kenya, although primary education sector enrolments in the past four decades have significantly improved, secondary enrolments have revealed only a modest increase together with low retention rates. Education improvement efforts in less industrialized nations like Kenya have focused on making education an efficient vehicle for national growth. Civil society and the Government of Kenya policy-makers have focused on ensuring that Kenya invest more in education and make sure that system of education are proficiently managed, limited financial support allocated to the sector of education have maximum effect and that costs revival measures are employed. Retention and graduation in the secondary school education sector in Kenya is characterized by numerous inhibiting factors, namely; affordability (cost), distance to school, lack of schools, household size, household income, broad curriculum, peer influence, parental education, among others.

Maitima (2008) conducted a research on the effectiveness of inhibiting factors on admission and retention of learners in public secondary schools. The research’s objectives were to ascertain the school related factors that influence secondary school access and retention in Imenti North District; to ascertain the student related factors that influence secondary access and retention, in Imenti North District; and to ascertain the communal related factors that influence secondary access and retention in Imenti North District. A review of related literature was undertaken to support the study. This study utilized survey design, and employed questionnaires for data collection to determine the inhibitive factors that affect secondary school access and retention in Imenti North District. The study obtained information from 8 principals, 7 guidance and counselling teachers and 32 class teachers. Simple descriptive statistics that includes frequency tables, pie charts and bar graphs were employed in analyzing
data employing the Statistical Package for Social Sciences (SPSS) computer software and Advanced Excel. The study's findings indicate that socio-economic factors, school-related factors, student-related factors and community-related factors affect access and retention of students in public secondary schools in Imenti North District. This research, thus, attempted to ascertain the relationship between retention and graduation rates in public secondary schools prior and after introduction of subsidized secondary education.

2.8 Summary of Literature Review

This chapter has presented a review of collected works connected to the research. The chapter has covered collected works on secondary education in Kenya; impact of tuition waiver fund on retention and graduation of secondary school students; influence of parental education on retention and graduation; influence of parental income on retention and graduation; influence of home-school relations on retention and graduation; enrolment, retention and graduation rates.

A local study by Maitima (2008) looked at enrolment rates and established that they increased after the introduction of tuition waiver fund. This study however, did not give adequate attention to the retention and graduation rates in secondary schools, which leaves a research gap. Consequently, the research sought to establish the socio-economic factors affecting retention and graduation rates in secondary education in Kiambu County. Previous studies done in Kenya have not looked at the combined effect of socio-economic factors on retention and graduation rates of students in secondary school education. For instance, Nyaga, (2005) conducted a study on the effects of delayed fees payments on access and retention while Ohba (2009) conducted a study on poverty and access to education.
Further, studies done outside Kenya like Davis-Kean (2005) and Drake (2000) studied the effects of parental education on access and retention. On the other hand, Chugh (2011) conducted a study on poverty and access to education. It is, therefore, evident that none of these studies established the combined impacts of socio-economic factors on retention and graduation. This research aimed at determining the combined effects of socio-economic factors such as: parental level of education, parental income and home school relations on the retention and graduation of students in secondary education, specifically those in Kiambu County.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction
This chapter discusses the research procedures that were employed in undertaking this research study. The chapter concentrates on target population, research design, sampling techniques, instruments, sample size, piloting and methods of collecting data and how data were analyzed.

3.2 Research Design
The research employed descriptive survey design. This research design was most suited to the purpose of this study; the retention and graduation in secondary schools. The descriptive survey design inherently promotes lengthy engagement in the study area, (Creswell, 2003). Furthermore, this design facilitated the researcher to be able to collect data which needed to complete and enrich the study without influencing any variables.

3.3 Locale of the Study and Rationale
This study was undertaken in Kiambu County. The County is located to the north of Kiambu, south of Gatanga East of Thika and Nyandarua to the west. The population density for this area is 638 people per km². Temperatures range between 15°C to 28°C with an altitude of 2250 meters above sea level and rainfall between 1200mm to 1600 mm per annum. The soils are well-drained with PH range of 4.5 to 5.57. The main economic activity is business, farming, manufacturing (Leather), food processing, mining (Carbacid), motor vehicle assembly, textile (Cotton), retail and wholesale trade. In addition, the area is rich in agricultural products such as tea, pineapples, coffee, wheat, poultry, macadamia nuts, horticulture, fish farming, and dairy. Due to
investments and business in the county, there are eight micro-finance institutions and seven commercial banks. The main challenges facing the occupants of this area are extensive stealing of coffee from farmers and insecurity resulting from persistent outlawed Mungiki sect.

The choice of the study locale was based on the fact that in the past years, the average rate of dropout for both Girls and boys in Kiambu County has been alarming. It approximates up to about 12% and 15% respectively (Statistics from County Director’s Office, 2013). The intention of this study was to find out if the trends are still the same even after the introduction of tuition waiver fund. Another reason for the choice is because the county is most convenient to the researcher for she lives in the neighboring district. Singleton (1993) observed that the perfect location for any research should be effortlessly reachable to the person undertaking the research and should be that permits instantaneous relationship with the informants. The researcher therefore, had an opportunity to carry out an in-depth survey due to easy interaction with the respondents of the study. This county also has a reasonable number of schools which ensured a reasonable sample for the study.

3.4 Target Population

The research targeted all the 218 public secondary schools in Kiambu County. Public schools were targeted since tuition waiver funds are exclusively for public schools only.
### 3.1: Sample size for schools

<table>
<thead>
<tr>
<th>School Category</th>
<th>School type</th>
<th>Population</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>Boys only</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Girls only</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>County</td>
<td>Girls only</td>
<td>48</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Boys only</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>CDF</td>
<td>Mixed day</td>
<td>89</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Mixed day and boarding</td>
<td>55</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>218</strong></td>
<td><strong>44</strong></td>
</tr>
</tbody>
</table>

### Table 3.2: Sample size for respondents

<table>
<thead>
<tr>
<th>Category of Respondents</th>
<th>Population</th>
<th>Sample</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principals</td>
<td>218</td>
<td>44</td>
<td>20%</td>
</tr>
<tr>
<td>County Education Officer</td>
<td>9</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>Quality Assurance and Standard Officers</td>
<td>9</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>236</strong></td>
<td><strong>48</strong></td>
<td><strong>20%</strong></td>
</tr>
</tbody>
</table>

### 3.5 Sample and Sampling Process

A sample refers to a small portion of target population. Sampling entails selection of a given some subjects from a distinct population as an illustrative of the whole population. Whichever declarations made about the sample should as well be true of the population (Orodho, 2002). Stratified sampling was used to select 44 out of 218 schools according to categories of national, county and CDF schools. Thereafter, the schools were stratified according to school type - boys only, girls only, mixed boarding and mixed day secondary schools. Forty four schools comprised 20% of the
targeted 218 schools, which is within the minimum sample of 20% as recommended by Gay (1992). Principals from the selected schools were also selected to participate.

The principals provided data on admission of the form ones (1) before and after introduction of tuition waiver fund and gave their views on what else would promote transition rates and challenges in the implementation and also highlight on the retention and graduation rates in public secondary schools. Random sampling was also employed in order to select two county education officers and two Quality Assurance and Standards Officers in Kiambu County to take part. This gave rise to a total of 48 participants. The County Education Officers and Quality Assurance and Standards Officers were selected to participate since they are the ones who oversee all what happens in relation to education issues and ensure the implementation of all education policies as stipulated by the MoEST.

3.6 Data Collection Instruments

The main tools employed in collecting data in this research were interview schedules and questionnaires.

3.6.1 Questionnaire

The questionnaire was employed in collecting data since it offers significant advantages in the administration process: it presents an even incentive potentially to huge numbers of people concurrently and provides the examination with an easy accretion of data. According to Gay (1992), questionnaires provide participants with freedom to air their views, estimation and also make proposals. It is also unsigned. Inscrutability helps to produce more open responses than is likely in an interview.

The questionnaire was employed to gather data from headteachers (see appendix A). The questionnaire comprised of six sections: Section A collected background
information for the headteachers like gender of the headteachers, academic qualifications and years of headship experience. Section B gathered information of enrolment and retention rate, section C was on parental level of education, section D gave information on parental income, section E was on home-school relations while section F gathered data on measures for improving retention and graduation.

3.6.2 Interview Schedules

Interview schedules are useful as they acquire detailed information about individual feelings, opinions and perceptions. In addition, they typically realize a high response rate and uncertainty can be clarified and partial answers followed up.

The interview schedules were employed to guide face to face interviews carried out with the CEO and the QASOs (see appendix B). The interview guides contained items touching on all the study objectives.

3.7 Pilot Study

Piloting was conducted in three schools, one national school, one county school and one CDF school. Two QASO were also included in the piloting in order to validate the research instruments for the education officers. The pilot schools were randomly selected and did not participate in the final study. According to Mugenda and Mugenda (1999), piloting makes sure that research instruments are stated evidently and have the similar meaning to all the respondents. During piloting, the researcher was able to modify, restrict and remove ambiguous items on the instruments. The pilot study enabled the pre-testing of study instruments.

3.7.1 Validity of Research Instruments

Validity refers to the accuracy and meaningfulness of deductions that are centered on the study results (Mugenda and Mugenda, 1999). Face validity denotes the possibility
that a question will be misinterpreted or misunderstood, thus, the pilot study assisted to sort out vagueness. Pre-testing a survey is an appropriate way to raise the probability of face validity. Borg and Gall (1989) maintain that content validity of an instrument is enhanced through expert conclusion. Content validity explains whether an instrument offers adequate reporting of a topic. Expert views help to ascertain content validity (Wilkinson, 1991).

3.7.2 Reliability of Research Instruments

According to Mugenda and Mugenda (1999), reliability is a measure of the amount of which a study instrument yields reliable results or data after constant trial. This is essential as it ensures the reliability of the instruments is ascertained. Reliability is identical with stability or repeatability. A measurement that yields reliable results over time is said to be consistent (Wiersma, 1985). When a measurement is inclined to random inaccuracies, it lacks consistency. The study employed the split-half technique of reliability testing. This method of reliability testing was used, where questionnaires were grouped into two equal halves and then a correlation coefficient for the two halves calculated using the formula below.

\[
(i) \quad r = 1 - \frac{6\sum (D)^2}{N (N^2 - 1)}
\]

Where:

\[
r = \text{Correlation coefficient}
\]

\[
\sum = \text{Summation of scores},
\]

\[
N = \text{Sample},
\]

\[
D = \text{Deviation}
\]

\[
(ii) \quad SH = \frac{2r}{1 + r} \quad \text{(Where Items are doubled)}
\]

\[
\text{(Spearman Brown Prophesy)}
\]
The obtained reliability coefficient was 0.6849 which is accepted as suggested by Mugenda and Mugenda (1999).

3.8 Data Collection Procedures

Prior to going to the field, the researcher obtained a research permit from the Ministry of Education Science and Technology authorizing her to carry out the research in selected schools and the district education officials. An introductory letter was obtained from the County Director's Office in Kiambu. After that, the researcher made arrangements with the sampled schools through the principals who were the only respondents.

The researcher thereafter visited the sampled schools to establish rapport and also seek permission from the principals who were actually the respondents for fixtures of dates to collect the data from their schools. The researcher organized with the principals the appropriate dates of visiting the schools for the collection of data. Quantitative data was collected through questionnaires while qualitative data was collected from in-depth interviews schedules. The data collection procedure took a period of three weeks.

3.9 Data Analysis Procedures

3.9.1 Quantitative Data

The data collected through questionnaires were coded and keyed in the computer for analysis process using Statistical Package for Social Sciences (SPSS). Quantitative data were obtained from close-ended questions was analyzed using both inferential and descriptive statistics. Descriptive statistics used percentages, frequency counts, means and standard deviations. Bell (1993) maintains that when making the outcomes
known to a diversity of readers, simple descriptive statistics for example percentages have a substantial advantage over more complex statistics, in that they are the most widely used and understood (Borg & Gall, 1989). To find the impact of parental level of education, parental income and home-school relations on student retention and graduation rate, the researcher used inferential statistics such as Analysis of Variance (ANOVA). This was measured at $p<0.05$ level of significance.

### 3.9.2 Qualitative Data

The qualitative research data gathered from interview questions were analyzed thematically based on research objectives. This is because qualitative data, for example finding out the opinions of the respondents on a specific issue is not always quantifiable by arithmetic relations. In using this form of analysis, major concepts or themes were identified.

### 3.10 Ethical Considerations

The following issues were considered throughout the study: All data were treated confidentially. Respondents were directed not to put their personal details or those of their schools anywhere in the questionnaires for confidentiality purposes. Responses to the questionnaires and interview schedules were purely voluntary.
CHAPTER FOUR
DATA ANALYSIS, PRESENTATIONS AND DISCUSSIONS

4.1 Introduction
This chapter outlines analysis and discussions of the study findings. The general aim of the study was to ascertain the socio-economic factors affecting retention and graduation in public secondary schools located in Kiambu County. The findings of the study were presented based on the four research objectives restated below:-

i. To find out the effects of tuition waiver fund on retention and graduation in public secondary schools in Kiambu County.

ii. To ascertain the extent to which parental level of education affects retention and graduation in public secondary schools in Kiambu County.

iii. To ascertain the effects of parental income on retention and graduation in public secondary schools in Kiambu County.

iv. To ascertain the influence of home-school relations on retention and graduation in public secondary schools in Kiambu County.

The chapter is organized into four sections. Each section presented analysis and discussions of the findings based on the literature reviewed. The respondents comprised of 44 principals, 2 county education officers and 2 quality assurance and standard officers, yielding a total of 48 respondents.

4.2 Impact of Tuition Waiver Fund on Retention and Graduation
The launch of the tuition waiver fund in 2008 was meant to deal with illiteracy, low rates of completion at the secondary level and low quality education, increased cost of education and inadequate community contribution (Republic of Kenya, 2005). The government has the responsibility of providing the tuition fees in schools while the
parents are asked to provide other requirements such as transport, lunch and boarding cost in case of students in boarding schools, in additional to development projects. The aim of this initiative was to realize Millennium Development Goals (MDG) and Education for All (Republic of Kenya, 2007). In this view, the first objective of the study sought to ascertain the impact of tuition waiver fund on retention and graduation in public secondary schools in Kiambu County.

4.2.1 Number of Students who Enrolled in 2005 and Completed in 2012

To establish the number of students who enrolled in 2005 and those who completed in 2012, the researcher computed the average number of students who were enrolled from each of the 44 schools sampled from year 2005 to 2012 and those who finished form four from year 2005 to 2012. The statistics obtained were as shown in Figure 4.1.

**Figure 4.1: Average number of students who were enrolled in 2005 and those who completed in 2012**

![Bar chart showing average number of students enrolled and those who completed in 2005 to 2012](chart)

**Source:** Principals questionnaire
As shown in Figure 4.1, the average number of students who were enrolled in year 2005 from the 44 sampled schools was 144, in year 2007 the number increased to 179 while in year 2012 the average number of students enrolled was 339. On the other hand, in year 2005, an average of 139 students completed form four, in year 2008, 154 students completed while in year 2011 an average of 187 students completed form four. Comparing the number of students in the three consecutive years (2005, 2006 and 2007) before introduction of tuition waiver fund in 2008 and after the introduction of tuition waiver fund in years 2009, 2010, 2011 and 2012, the results of the analysis revealed that tuition waiver fund had a positive impact on students’ progression rate.

### 4.2.2 Students Graduation Rate

Graduation rate refers to the completion of the stipulated number of years for secondary education. In this regard, students’ persisting to completion of their educational goals is a key gauge to students’ success and school success. To find out the impact of tuition waiver fund on students’ graduation rate, the researcher used the total number of students who were enrolled in year 2009 and those who graduated in year 2012 from the 44 sampled schools. Results of this analysis are shown in Table 4.1
Table 4.1: Total number of students who were enrolled in year 2009 and those who completed in year 2012 (graduation rates)

<table>
<thead>
<tr>
<th>No. of Schools</th>
<th>Students completed in 2012</th>
<th>Students enrolled in 2009</th>
<th>Difference</th>
<th>No. of Schools</th>
<th>Students completed in 2012</th>
<th>Students enrolled in 2009</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>90</td>
<td>100</td>
<td>-10</td>
<td>23.</td>
<td>136</td>
<td>130</td>
<td>6</td>
</tr>
<tr>
<td>2.</td>
<td>166</td>
<td>161</td>
<td>5</td>
<td>24.</td>
<td>39</td>
<td>38</td>
<td>1</td>
</tr>
<tr>
<td>3.</td>
<td>154</td>
<td>168</td>
<td>-14</td>
<td>25.</td>
<td>98</td>
<td>91</td>
<td>7</td>
</tr>
<tr>
<td>4.</td>
<td>258</td>
<td>242</td>
<td>16</td>
<td>26.</td>
<td>49</td>
<td>46</td>
<td>3</td>
</tr>
<tr>
<td>5.</td>
<td>150</td>
<td>143</td>
<td>7</td>
<td>27.</td>
<td>179</td>
<td>176</td>
<td>3</td>
</tr>
<tr>
<td>6.</td>
<td>99</td>
<td>74</td>
<td>25</td>
<td>28.</td>
<td>43</td>
<td>41</td>
<td>2</td>
</tr>
<tr>
<td>7.</td>
<td>72</td>
<td>78</td>
<td>-6</td>
<td>29.</td>
<td>90</td>
<td>86</td>
<td>4</td>
</tr>
<tr>
<td>8.</td>
<td>56</td>
<td>79</td>
<td>-23</td>
<td>30.</td>
<td>73</td>
<td>69</td>
<td>4</td>
</tr>
<tr>
<td>9.</td>
<td>90</td>
<td>100</td>
<td>-10</td>
<td>31.</td>
<td>77</td>
<td>76</td>
<td>-1</td>
</tr>
<tr>
<td>10.</td>
<td>136</td>
<td>130</td>
<td>6</td>
<td>32.</td>
<td>34</td>
<td>36</td>
<td>-2</td>
</tr>
<tr>
<td>11.</td>
<td>64</td>
<td>65</td>
<td>-1</td>
<td>33.</td>
<td>69</td>
<td>66</td>
<td>3</td>
</tr>
<tr>
<td>12.</td>
<td>73</td>
<td>72</td>
<td>1</td>
<td>34.</td>
<td>90</td>
<td>100</td>
<td>-10</td>
</tr>
<tr>
<td>13.</td>
<td>193</td>
<td>196</td>
<td>-3</td>
<td>35.</td>
<td>136</td>
<td>130</td>
<td>6</td>
</tr>
<tr>
<td>14.</td>
<td>60</td>
<td>61</td>
<td>-1</td>
<td>36.</td>
<td>64</td>
<td>65</td>
<td>-1</td>
</tr>
<tr>
<td>15.</td>
<td>93</td>
<td>94</td>
<td>-1</td>
<td>37.</td>
<td>43</td>
<td>41</td>
<td>2</td>
</tr>
<tr>
<td>16.</td>
<td>164</td>
<td>163</td>
<td>1</td>
<td>38.</td>
<td>90</td>
<td>86</td>
<td>4</td>
</tr>
<tr>
<td>17.</td>
<td>42</td>
<td>43</td>
<td>-1</td>
<td>39.</td>
<td>73</td>
<td>69</td>
<td>4</td>
</tr>
<tr>
<td>18.</td>
<td>85</td>
<td>86</td>
<td>-1</td>
<td>40.</td>
<td>166</td>
<td>161</td>
<td>5</td>
</tr>
<tr>
<td>19.</td>
<td>66</td>
<td>68</td>
<td>-2</td>
<td>41.</td>
<td>144</td>
<td>165</td>
<td>-21</td>
</tr>
<tr>
<td>20.</td>
<td>77</td>
<td>76</td>
<td>1</td>
<td>42.</td>
<td>94</td>
<td>87</td>
<td>7</td>
</tr>
<tr>
<td>21.</td>
<td>34</td>
<td>36</td>
<td>-2</td>
<td>43.</td>
<td>85</td>
<td>92</td>
<td>-7</td>
</tr>
<tr>
<td>22.</td>
<td>69</td>
<td>66</td>
<td>3</td>
<td>44.</td>
<td>77</td>
<td>76</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Principals questionnaire

As shown in Table 4.1, out of the 44 sampled schools, 19 registered a 100% students’ completion rate while 25 recorded either dropout or transfer cases. Results of the analysis revealed that school 6 registered a 100% completion rate with an increase of 25 students while school 4 recorded a 100% completion rate with an increase of 16 students. However, among those that recorded decrease in students’ completion rate, school 1 recorded a decrease of 10 students, school 8 recorded a decrease of 23 students; school 41 recorded a decrease of 21 students while school 3 recorded a decrease of 14 students. This implies that despite the government introduction of tuition waiver funds, most of the schools were experiencing students’ dropout cases.
4.2.3 Students Retention in School

Retention rate refers to the ability to retain students in school until the completion of a cycle. In order to implement an effective student’s retention improvement program in schools, the study first sought to establish whether schools in Kiambu county experienced drop out cases among students. Principals’ were asked to point out the number of students in their respective schools who dropped out of school from year 2005 to 2012. Table 4.2 presents results obtained.

Table 4.2: Total number of students who dropped out of school from year 2005 to 2012

<table>
<thead>
<tr>
<th>Schools</th>
<th>Total number of dropout</th>
<th>Schools</th>
<th>Total number of dropout</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1</td>
<td>57</td>
<td>School 23</td>
<td>30</td>
</tr>
<tr>
<td>School 2</td>
<td>41</td>
<td>School 24</td>
<td>10</td>
</tr>
<tr>
<td>School 3</td>
<td>72</td>
<td>School 25</td>
<td>26</td>
</tr>
<tr>
<td>School 4</td>
<td>12</td>
<td>School 26</td>
<td>18</td>
</tr>
<tr>
<td>School 5</td>
<td>3</td>
<td>School 27</td>
<td>22</td>
</tr>
<tr>
<td>School 6</td>
<td>8</td>
<td>School 28</td>
<td>39</td>
</tr>
<tr>
<td>School 7</td>
<td>20</td>
<td>School 29</td>
<td>23</td>
</tr>
<tr>
<td>School 8</td>
<td>21</td>
<td>School 30</td>
<td>13</td>
</tr>
<tr>
<td>School 9</td>
<td>62</td>
<td>School 31</td>
<td>24</td>
</tr>
<tr>
<td>School 10</td>
<td>15</td>
<td>School 32</td>
<td>16</td>
</tr>
<tr>
<td>School 11</td>
<td>14</td>
<td>School 33</td>
<td>31</td>
</tr>
<tr>
<td>School 12</td>
<td>10</td>
<td>School 34</td>
<td>53</td>
</tr>
<tr>
<td>School 13</td>
<td>27</td>
<td>School 35</td>
<td>19</td>
</tr>
<tr>
<td>School 14</td>
<td>32</td>
<td>School 36</td>
<td>14</td>
</tr>
<tr>
<td>School 15</td>
<td>21</td>
<td>School 37</td>
<td>17</td>
</tr>
<tr>
<td>School 16</td>
<td>25</td>
<td>School 38</td>
<td>34</td>
</tr>
<tr>
<td>School 17</td>
<td>9</td>
<td>School 39</td>
<td>11</td>
</tr>
<tr>
<td>School 18</td>
<td>20</td>
<td>School 40</td>
<td>43</td>
</tr>
<tr>
<td>School 19</td>
<td>35</td>
<td>School 41</td>
<td>67</td>
</tr>
<tr>
<td>School 20</td>
<td>24</td>
<td>School 42</td>
<td>12</td>
</tr>
<tr>
<td>School 21</td>
<td>16</td>
<td>School 43</td>
<td>5</td>
</tr>
<tr>
<td>School 22</td>
<td>29</td>
<td>School 44</td>
<td>28</td>
</tr>
</tbody>
</table>

Source: Principals questionnaire

As reflected in Table 4.2, all the schools registered students’ dropout cases from year 2005 to 2012. School 3 listed the highest dropout cases, followed by school 41 and then school 9. On the other hand, school 5 recorded the lowest dropout cases,
followed by school 43 and then school 6. This implies that student’s dropout case was a common problem existing in public secondary schools in Kiambu County. This problem may lead to low retention rate of students in schools especially those that registered higher drop out cases. The students dropout cases were also expected to have a negative impact on students’ graduation rate, whereby schools with higher dropout cases were more likely to have lower graduation rates whereas those schools with lower dropout cases were more likely to have higher graduation rates of students in form four.

To confirm this finding, the researcher conducted an interview among the 2 county education officers and 2 quality assurance and standard officers. The researcher noted that all the respondents reported that tuition waiver fund had a positive impact on students’ retention and graduation rates. However, they further affirmed that dropout cases still existed in schools since there are some other school levies that the government does not cater for. These include boarding fee, transport fee, building and construction, school uniform, among others. This shows that in essence, students from low income families still keep on facing considerable challenges in providing financial support required in free secondary education.

4.3 Effects of Parental Level of Education on Retention and Graduation

The second objective of this research was to establish the level at which parental level of education affects retention and graduation in public secondary schools in Kiambu County. Parental education has a great impact towards students’ academic success (Sandefur, Meier, & Campbell, 2005). This is because parental education may sway the ability or willingness for parents to become engaged in students’ academic retention in schools and also students’ graduation rate (Bogenschneider, 1997). On the other hand, parents or guardian without college education may not feel equipped
with the capacity to assist their youngster or playing a part in children’s school life as they may not comprehend the substantial or feel contented with their capacities (Hill et al., 2004). This as a result could negatively influence students’ academic retention and also graduation rate.

4.3.1 Parental Level of Education

Expectations for school success are placed on children in schools and in the home. Parents with lower levels of education are less expected to have high expectations for the children's academic success compared to the parents with higher education levels. Parents or guardian with more education are more expected to get enmaged in the school. Well-educated parents are acquainted with how schools work and are likely at ease with school structure. Students are conscious of their parents' relieve levels with education and it is replicate in their grades, these grades may have a great influence towards children retention and school completion rate. Figure 4.2 illustrates parents’ education level.

![Bar chart showing parental education levels](image)

**Figure 4.2: Parental education level as reported by principals**
Among the 44 principals who took part in the study, 4 (9.1%) of them indicated that some parents in their schools had attained Masters Degree qualifications, 8 (18.2%) stated that some parents had Bachelors Degree, 16 (36.4%) indicated that they had tertiary college qualifications while 13 (29.5%) reported that they had attained secondary education. Only 3 (6.8%) principals cited that some parents had attained primary education. This implies that all the parents with the students from the 44 sampled schools were literate.

4.3.2 Effects of Parental Level of Education on Students’ Graduation Rate

To test mean differences on parental level of education and students graduation rate, mean differences in graduation rate for the students who were enrolled in year 2009 and those who completed form four in year 2012 were compared. The independent variables were parental level of education (Masters Degree, Bachelors Degree, Tertiary College, Secondary and Primary Education) and the dependent variable was students graduation rate (see Table 4.1). Presented in Table 4.3 are the results of the analysis.

Table 4.3: Differences in means on parental level of education and students graduation rate

<table>
<thead>
<tr>
<th>Parents education level</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters degree</td>
<td>4</td>
<td>3.00</td>
<td>1.414</td>
</tr>
<tr>
<td>Bachelors degree</td>
<td>8</td>
<td>1.88</td>
<td>6.875</td>
</tr>
<tr>
<td>Tertiary college</td>
<td>16</td>
<td>1.63</td>
<td>9.415</td>
</tr>
<tr>
<td>Secondary education</td>
<td>13</td>
<td>0.31</td>
<td>5.528</td>
</tr>
<tr>
<td>Primary education</td>
<td>3</td>
<td>-15.00</td>
<td>5.568</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>44</strong></td>
<td><strong>0.27</strong></td>
<td><strong>8.176</strong></td>
</tr>
</tbody>
</table>

Source: Principals questionnaire

Table 4.3 illustrates that 3 principals’ who reported that some parents had attained primary education level recorded an overall mean score of -15.00 on students
graduation rate difference. The negative scores illustrated that some schools recorded drop out cases and therefore a decrease in students’ graduation rate. However, among those with positive scores, 16 principals reported that some parents had attained tertiary college education (1.63), 8 reported that some parents had Bachelors degree qualifications (1.88) while the remaining 4 stated that some parents had attained Masters degree (3.00). The positive mean scores shows that some schools registered an improvement in the number of students completing form four, and hence a 100% graduation rate. The results of the analysis further revealed that principals who reported that some parents in their schools had attained Bachelors and Masters Degree qualification obtained higher mean scores on students’ graduation rate, while those who reported that some parents had attained primary and secondary education obtained lower mean scores on the same. This shows that parents’ level of education had an impact on students’ graduation rate.

To verify these findings, the researcher conducted Analysis Of Variance (ANOVA) test. The results are shown in Table 4.4

Table 4.4: ANOVA statistics on impact of parental level of education on students’ graduation rate

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>779.333</td>
<td>4</td>
<td>194.833</td>
<td>3.626</td>
<td>.013*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2095.394</td>
<td>39</td>
<td>53.728</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2874.727</td>
<td>43</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at p<0.05 Level

ANOVA statistics test results shows that there was a considerable difference between students graduation rates in secondary schools and parental level of education, F (4, 39)=3.626, p=0.013). As depicted in Table 4.6, the findings showed that parents with higher education level positively influences students’ completion rates in school while
those with lower education level negatively influences students’ completion rate in form four. This shows that parents’ education level had a great impact towards students’ graduation rate. Meaning, students from the background where parents had attained higher education level were more likely to complete school compared to those from background where parents had low level of education.

4.3.3 Effects of Parental Level of Education on Students’ Retention Rate

The study sought to find out how parental level of education influence students’ retention in school. To ascertain this, the researcher first compared the mean scores obtained by the respondents on total number of students who had dropped out of school from year 2005 to 2012. The independent variables were parental level of education and the dependent variable was total number of students who never completed school from 2005 to 2012 (See Table 4.4). Table 4.5 shows results of the analysis

Table 4.5: Mean differences on parental level of education versus students’ retention rate

<table>
<thead>
<tr>
<th>Education level of parents</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters degree</td>
<td>4</td>
<td>16.75</td>
<td>6.238</td>
</tr>
<tr>
<td>Bachelors degree</td>
<td>8</td>
<td>11.87</td>
<td>8.871</td>
</tr>
<tr>
<td>Tertiary college</td>
<td>16</td>
<td>21.38</td>
<td>8.437</td>
</tr>
<tr>
<td>Secondary education</td>
<td>13</td>
<td>30.54</td>
<td>15.387</td>
</tr>
<tr>
<td>Primary education</td>
<td>3</td>
<td>67.00</td>
<td>5.000</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>25.05</td>
<td>16.829</td>
</tr>
</tbody>
</table>

Source: Principals’ questionnaire

Results presented in Table 4.5 illustrate that 4 principals who reported that some of the parents in their schools had attained Masters’ degree qualification obtained a dropout mean deviation of 16.75, 16 respondents who stated that some parents had
College qualifications obtained a mean deviation of 21.38 whereas 3 respondents who reported that some parents had primary education obtained a drop out mean deviation of 67.00. This shows that parents’ education level had an influence of students’ retention in school, meaning the higher the level of education among the parents the lower the dropout cases experienced in schools and vice versa. In accordance with the findings, Blick & Sahn (2000); Brown & Park (2002); Duryea (2003) and Ersado (2005) established that parents with low education levels are more expected to have children who do not go to school. If they do, they have a tendency to drop out in greater numbers and involve in more income generating undertakings than children of parents with high education levels. This therefore, revealed that parental level of education was highly associated with the students’ dropout rates in the school.

Table 4.6 presents ANOVA statistics on impact of parental level of education on students’ retention in school.

**Table 4.6: ANOVA statistics on impact of parental level of education on students’ retention**

<table>
<thead>
<tr>
<th>ANOVA statistics</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>7551.303</td>
<td>4</td>
<td>1887.826</td>
<td>15.913</td>
<td>.000*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>4626.606</td>
<td>39</td>
<td>118.631</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12177.909</td>
<td>43</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at p<0.05 level

Results in Table 4.6 show that parental level of education had a significant effect on students’ retention in school, F (4,39)=15.913, P=0.000. As reflected in Table 4.9, students whose parents had attained primary education were more likely to dropout of school than students whose parents had attained Bachelors and Masters Degree. This implies that parental level of education had a great influence on students’ retention in
school. In agreement with the findings, Noor (2001) argues that there is a direct connection between children’s enrolment and retention in school and parental level of education. Educated parents with high rates of earnings are able to offer their children with a conducive home environment, items required in school and pay for additional tuition, therefore encouraging contribution of children in education since they realize the value of education and its advantage to the child. Educated parents enroll their children to good schools; persuade them to study by availing relevant books/revision materials and ensuring completion of their children’s education.

**4.4 Effects of Parental Income on Retention and Graduation**

According to Lewin (2007), patterns of contribution at secondary level were deeply skewed by family income. Lewin established that children from the wealthiest 20% of families had on average of over 11 times the possibility of reaching grade nine (form one) compared to those from the poorest 40% of families. Lewin further established that for Kenya, while registration for all income groups declined stridently from primary to secondary school, contribution rates between poor and rich differed by 0.35 (35%). In this regard, the third objective of the study attempted to establish the effects of parental income on retention and graduation in public secondary schools in Kiambu County. To respond to this objective, study respondents (principals) were asked to rate parental level of income in their current schools. Presented in Table 4.7 are the results obtained.
Table 4.7: Income levels of parents across gender

<table>
<thead>
<tr>
<th>Ratings of parental level of income</th>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>High</td>
<td>F 1</td>
<td>f 4</td>
</tr>
<tr>
<td>Average</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>Low</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>20</td>
</tr>
</tbody>
</table>

Source: Principals’ questionnaire (n=44)

As shown in Table 4.7, out of the 24 male principals, 1 (4.2%) principals reported that parents in their schools had high level of income, 16 (66.7%) indicated they were averaged while 7 (29.2%) stated that their level of income was low. Among the female principals, 3 (15.0%) rated parental level of income as high, 12 (60.0%) indicated that they were averaged while the remaining 5 (25.0%) indicated that parental level of income was low. This shows that majority of the principals (both male and females) felt that most parents in their schools were averaged in terms of income level.

4.4.1 Effects of Parental Income on Students’ Graduation Rate

Family characteristics (parental occupational status, income level, education level) sometimes predicts whether students’ drop out of school or graduate. In relation to this, the study sought to determine whether parental income had any influence on students’ graduation rate. To ascertain this objective, the researcher first compared mean differences in graduation rate for the students who were enrolled in year 2009 and those who completed form four in year 2012. The independent variables were parental level of income (high, average and low) and the dependent variable was students’ graduation rate (see Table 4.1). Table 4.8 shows students’ graduation rate mean differences versus parental level of income.
Table 4.8: Mean differences on parental level of income versus students’ graduation rates

<table>
<thead>
<tr>
<th>Income levels of parents</th>
<th>N</th>
<th>Graduation rate mean deviation</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>4</td>
<td>5.50</td>
<td>3.000</td>
</tr>
<tr>
<td>Average</td>
<td>28</td>
<td>3.07</td>
<td>5.862</td>
</tr>
<tr>
<td>Low</td>
<td>12</td>
<td>-8.00</td>
<td>8.367</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>44</td>
<td><strong>.27</strong></td>
<td><strong>8.176</strong></td>
</tr>
</tbody>
</table>

Results in Table 4.8 illustrate that 4 principals who reported that parents in their schools had high level of income obtained a overall mean deviation of 5.50, 28 principals who indicated that parental level of income was average obtained an overall mean of 3.07 whereas 12 respondents who indicated that parents in their current schools had low level of income obtained a mean deviation of -8.00. The negative mean scores revealed that principals in those schools registered a decrease in the number of students who graduated in form four while positive mean scores shows that principals registered 100% completion rate. From these findings, it therefore emerged that schools that registered decline in completion rates also had higher number of parents whose income level was low. This means that low parental income was associated with low graduation rate. In line with the findings, Mbai (2004) noted that students from homes where family income is less are prone to drop out of school than those students’ from families where income level is high. This is because low income leads to an increase in poverty level and as such poor people have a tendency to give priority to essential needs for example food, clothing and shelter while education is placed at a distance.
To confirm these findings, the researcher conducted Analysis Of Variance (ANOVA) to find out whether parental level of income had an impact on students’ graduation rate. Table 4.9 demonstrates results of this analysis.

**Table 4.9: ANOVA statistics on impact of parental level of income on students’ graduation**

<table>
<thead>
<tr>
<th>ANOVA statistics</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1149.870</td>
<td>2</td>
<td>574.935</td>
<td>13.666</td>
<td>.000*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1724.857</td>
<td>41</td>
<td>42.070</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2874.727</strong></td>
<td><strong>43</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at p<0.05 level

Based on the ANOVA test, results of the analysis showed that parents’ level of income had a significant effect on students’ graduation rate, $F (2,41) =13.666$, $p=0.000$. As reflected in Table 4.9, schools that registered decline in completion rates also had higher number of parents whose income level was low, meaning parental level of income had a great influence on students’ graduation rate. In line with the findings, Rose, (2008) found out that schools with a greater percentage of learners from low income households have lower students’ graduation rates in comparison with the schools with greater percentage of learners from high income families.

**4.4.2 Effects of Parental Level of Income on Students Retention Rate**

To establish the effect of parental level of income on students’ retention rate, the study first compared the mean scores obtained by the respondents on the total number of students who never completed school from year 2005 to 2012 (See Table 4.3). The independent variables were parental level of income and the dependent variable was total number of students who had dropped out of school from 2005 to 2012. Table 4.10 shows students’ dropout rate mean deviations across parental level of income.
Table 4.10: Mean difference on parental level of income versus students’ retention

<table>
<thead>
<tr>
<th>Income levels of parents</th>
<th>N</th>
<th>Dropout rate mean deviation</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>4</td>
<td>6.25</td>
<td>5.679</td>
</tr>
<tr>
<td>Average</td>
<td>28</td>
<td>21.82</td>
<td>9.338</td>
</tr>
<tr>
<td>Low</td>
<td>12</td>
<td>38.83</td>
<td>22.847</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>44</td>
<td><strong>25.05</strong></td>
<td><strong>16.829</strong></td>
</tr>
</tbody>
</table>

As Table 4.10 shows, 4 principals with an overall dropout mean deviation of 6.25 rated parental level of income as high, 28 principals with a mean deviation of 21.82 rated parents income as average while 12 with a dropout mean deviation of 38.83 rated parents’ level of income as low. The highest mean scores translated to high drop out rates while low mean scores translated to low drop out rates. From the results, it therefore means that most of the parents from the schools that registered high students’ dropout rates had low level of income. Meaning parental level of income had a great influence on students’ retention in school.

To verify these results, further analysis was done using ANOVA test. Presented in Table 4.11 are results obtained.

Table 4.11: ANOVA statistics on impact of parental level of income on students’ retention

<table>
<thead>
<tr>
<th>ANOVA statistics</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3985.385</td>
<td>2</td>
<td>1992.693</td>
<td>9.973</td>
<td>.000*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>8192.524</td>
<td>41</td>
<td>199.818</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12177.909</strong></td>
<td>43</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at p<0.05 level
The findings presented in Table 4.11 indicate that parental level of income had a significant influence on students retention in school, F (2, 41) = 9.973, p=0.000. As depicted in Table 4.11, results revealed that principal from the 12 schools that registered high students’ dropout rates also indicated that parental level of income was low whereas the 4 principals from the schools that registered lower dropout cases further stated that parental level of income was high. This means that students’ from high income families were less prone to drop out of school compared with students from low income families. In agreement with the findings, a UN team report on education indicate that completion levels are lowest for children from poor families and below half of the poorest children complete their first year of school (Birdsall, Levine and Ibrahim 2005). At a micro-level, household income is directly connected to the affordability of education and by itself has a direct effect on whether children acquire education (Hadley, 2010). If children do acquire education, changes in the economic situation of parents, as indicated by the instability of family earnings, may drive some children out of education.

4.5 Effects of Home-School Relations on Retention and Graduation

A Home-school relation is a way of judgment about forming relationships between households and schools. Forming relationships mean creating an intentional and ongoing connection between family and school. The connection is designed to boost children’s learning and to deal with any obstacles that may obstruct it (Christenson & Sheridan, 2001).

In relation to this, the fourth objective of the study sought to determine the influence of home-school relations on retention and graduation in public secondary schools in Kiambu County. To address this objective, school heads were presented with seven
statements measuring the emphasis put in place in their respective schools to enhance home-school relations. They were expected to either disagree or agree with each statement, by using “true or false” response. Table 4.1 shows results obtained.

Table 4.12: Principals’ responses on influence of home-school relations on retention and graduation

<table>
<thead>
<tr>
<th>Home-school relations</th>
<th>True</th>
<th>%</th>
<th>False</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our school fosters positive relations with parents and the community around the school</td>
<td>35</td>
<td>79.5</td>
<td>9</td>
<td>20.5</td>
</tr>
<tr>
<td>The school invites parents in school functions</td>
<td>44</td>
<td>100.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Parents are encouraged to take part in their children’s education by the following up on their performance</td>
<td>44</td>
<td>100.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>The school involves parents only in the school activities that have to do with their children’s performance</td>
<td>16</td>
<td>36.4</td>
<td>28</td>
<td>63.6</td>
</tr>
<tr>
<td>The school regularly has meetings with parents to update them on the on-going in the school</td>
<td>44</td>
<td>100.0</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Parents are invited to give solutions to students problems related to their performance</td>
<td>31</td>
<td>70.5</td>
<td>13</td>
<td>29.5</td>
</tr>
<tr>
<td>The parents in our school are not cooperative</td>
<td>18</td>
<td>40.9</td>
<td>26</td>
<td>59.1</td>
</tr>
</tbody>
</table>

Source: Principals’ questionnaire (n=44)

Results in Table 4.12 shows that all (100.0%) the school heads who took part in the study approved that school; invited parents in school functions, encouraged parents to take part in their children education and also regularly held meetings with parents to update them on the on-going school activities. Over 70.0% of them further reported that school foster is positive relations with the parents and the community and also invited parents to give solutions to students problems related to their performance. This implies that most of the schools were involving parents in school activities and therefore portraying a positive home-school relationship. Onyango (2001) maintains that it is the liability of the school heads to encourage school-society connections. Principals should aspire to promote a good functioning connection with the Parents Teachers Associations (PTAs) and Board of Governors (BoG). The headteacher and principal should also get the board to directly know the school, to share in its needs,
prospects, problems and achievements. Table 4.13 illustrates overall home-school relations.

**Table 4.13: Overall home-school relations**

<table>
<thead>
<tr>
<th>Home-school relations</th>
<th>Gender</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>%</td>
</tr>
<tr>
<td>Poor relation</td>
<td>3</td>
<td>12.5%</td>
</tr>
<tr>
<td>Good relation</td>
<td>21</td>
<td>87.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>24</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

As shown in Table 4.13, among the 24 male principals, 3 (12.5%) reported that they had poor home-school relations while 21 (87.5%) of them indicated that they had good home-school relations. As for the female principals, 2 (10.0%) indicated that they had poor home-school relations while 18 (90.0%) stated that they had good home-school relations. This implies that majority (88.6%) of the principals reported that their schools had good home-school relations.

**4.5.1 Influence of Home-School Relations on students Graduation Rate**

In family–school connections, the input of both school and home is valued and concentrate on what both educators and parents (teachers) can do to encourage students’ education. This involves providing families with adequate information about transforms and how those transforms may have an effect upon children education and development, so that they can come up with decisions. But, it as well includes involving households in more significant ways, for example making decisions about their child learning programme, implementing interventions, suggesting and offering input on programme development matters. This practice promoted close and normal contact and shared norms between school and home. In this regard, the study sought to establish how home-school relations influence
students completion rate in form four. To address this, the study compared the mean scores obtained by principals in graduation rate for the students who were enrolled in year 2009 and those who completed form four in year 2012 (See Table 4.1). The independent variables of the study were home-school relations measured by poor and good relations while the dependent variable was the students’ graduation rate. Table 4.14 demonstrates results obtained.

**Table 4.14: Home-school relations across graduation rates for students**

<table>
<thead>
<tr>
<th>Home-school relations</th>
<th>N</th>
<th>Graduation rate mean deviation</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor relation</td>
<td>5</td>
<td>-9.60</td>
<td>13.759</td>
</tr>
<tr>
<td>Good relation</td>
<td>39</td>
<td>1.54</td>
<td>6.423</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>44</strong></td>
<td><strong>0.27</strong></td>
<td><strong>8.176</strong></td>
</tr>
</tbody>
</table>

From Table 4.14, it can be observed that schools that had poor relationship with the parents and community members recorded an overall mean deviation of -9.60 whereas those with good relationship registered mean deviation of 1.54. This means that poor home-school relationship had a negative impact on students’ graduation rate while good home-school relationship had positive impact on students graduation rate. This demonstrates that schools with good relations with the parents/community registered a 100% completion rate while schools with poor relationship recorded decline in graduation rates. In line with the findings, Belfield and Levin, (2007) cited that when schools, families, parents, and communities collaborate to support learning, pupils have a tendency to earn higher grades, go to school more frequently, remain in school longer, and register in higher level programmes. This was a clear implication that school-family and community involvement fosters higher educational aspiration and therefore, an increase on students’ graduation rate.
To confirm these findings, the researcher conducted Analysis of Variance Test and the results are presented in Table 4.15.

Table 4.15: ANOVA statistics on influence of home-school relations on students’ graduation

<table>
<thead>
<tr>
<th>ANOVA statistics</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>549.835</td>
<td>1</td>
<td>549.835</td>
<td>9.933</td>
<td>.003*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2324.892</td>
<td>42</td>
<td>55.355</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2874.727</strong></td>
<td>43</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at *p*<0.05 level

Results in Table 4.15 show that home-school relations had a significant influence on students’ graduation rates, $F (1, 42) = 9.933, p=0.003$. This means that most students from families that had good school relations were likely to complete secondary education compared to the students’ from families where there is poor home-school relations.

4.5.2 Influence of Home-School Relations on students’ Retention Rate

Home-school relations emphasize on building the relationship and finding ways for households, communities and educators to work together to collaborate in educational experiences and school achievement of students. Hoffman (1991) maintains that positive home-school connection is one of his eight frequent attributes of efficient schools. Recent study shows that positive parent participation plays a key role in influencing results, such as higher grades, increases student attention, long-term academic achievement and retention, and improved motivation and self-esteem (Lazar, et al., 1999).
The study sought to find out how home-school relations influence students retention in school. To meet this objective, the researcher compared the mean scores obtained by principals on the total number of students who had dropped out of school from year 2005 to 2012. The independent variables were home-school relations measured by two variables, that is, poor and good relations whereas the dependent variable was total number of students who had dropped out of school from 2005 to 2012 (See Table 4.3). Table 4.16 reflects results of the analysis.

**Table 4.16: Home-school relations versus students’ retention in school**

<table>
<thead>
<tr>
<th>Home-school relations</th>
<th>N</th>
<th>Dropout rate mean deviation</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor relation</td>
<td>5</td>
<td>44.80</td>
<td>23.102</td>
</tr>
<tr>
<td>Good relation</td>
<td>39</td>
<td>22.51</td>
<td>14.365</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>25.05</td>
<td>16.829</td>
</tr>
</tbody>
</table>

As shown in Table 4.16, 5 principals who stated that they had poor home-school relationship obtained a dropout mean deviation of 44.80 while 39 of them who indicated that they had good home-school relations obtained a dropout mean deviation of 22.51. This implies that schools that had poor home-school relations registered higher students’ dropout rate in comparison with schools that had good home-school relations. Table 4.17 illustrates ANOVA statistics on influence of home school relations on students’ retention in school.
Table 4.17: ANOVA statistics on influence of home school relations on students’ retention in school

<table>
<thead>
<tr>
<th>ANOVA statistics</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2201.366</td>
<td>1</td>
<td>2201.366</td>
<td>9.267</td>
<td>.004*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>9976.544</td>
<td>42</td>
<td>237.537</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12177.909</td>
<td>43</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at p<0.05 level

ANOVA statistics showed that home-school relations had a significant effect on students retention in school, F (1, 42) =9.267, p=0.004. As shown in Table 4.17, poor home–school relations lead to higher dropout cases while good home-school relations leads to lower dropout cases. In line with the findings, Chugh, (2011) examined the factors that influenced children to drop out at the secondary level. Results from the study indicated that both school-related and family factors were conscientious, and appeared to be greatly correlated with one other. It was also established that young people dropout was not simply due to financial constraints and poverty but also due to the fact that schools did not respond properly to their special educational requirements forcing them to dropout. Similarly, Belfield and Levin, (2007) cited parent-household-community participation as a key to deal with the school dropout disaster and note that strong school-household-community partnerships promote higher educational ambitions and more stimulated students (Barton, 2003).
CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction
This chapter outlines the summary of the study findings, conclusions and recommendations. It also gives areas for further research.

5.2 Summary of the Study Findings
The main purpose of the study was to determine the impact of tuition waiver fund on retention and graduation in public secondary schools in Kiambu County. Data for the study were collected from 44 principals, 2 county education officers and 2 quality assurance and standard officers. The following are the main study findings:

5.2.1 Impact of Tuition Waiver Fund on Retention and Graduation
In relation to this objective, the study established that tuition waiver fund had a positive effect on students’ retention and graduation. The study revealed that the average number of learners who were enrolled in year 2005 from the 44 sampled schools was 144, in year 2007 the number increased to 179 while in year 2012 the average number of students enrolled was 339. On the other hand, in year 2005, an average of 139 students completed form four, in year 2008, 154 students completed while in year 2011 an average of 187 students completed form four. Comparing the number of students in the three consecutive years (2005, 2006 and 2007) before introduction of tuition waiver fund in 2008 and after the introduction of tuition waiver fund in years 2009, 2010, 2011 and 2012, the results of the analysis shown that there was increase in the number of students who were enrolled and those who finished form four education. Meaning, tuition waiver fund had an impact on students’
enrolment and graduation rate. However, results of the analysis further revealed that the student dropout case was a common problem existing in public secondary schools in Kiambu County. This problem led to low retention rate of students in schools especially those that registered higher dropout cases. The students dropout cases were also expected to have a negative impact on students’ graduation rate, whereby schools with higher dropout cases were more likely to have lower graduation rates whereas those schools with lower dropout cases were more likely to have higher graduation rates of students in form four.

5.2.2 Extent to Which Parental Level of Education Affects Students’ Retention and Graduation Rate

The study established that 3 principals’ who reported that some parents had attained primary education level recorded an overall mean score of -15.00 on students’ graduation rate difference. The negative scores illustrated that some schools recorded drop out cases and therefore a decrease in students’ graduation rate. However, among those with positive scores, 16 principals reported that some parents had attained tertiary college education (1.63), 8 reported that some parents had Bachelors degree qualifications (1.88) while the remaining 4 stated that some parents had attained Masters degree (3.00). The positive mean scores shows that some schools posted an improvement in the number of students completing form four, and hence a 100% graduation rate. The study findings revealed that parents with higher education level (Master’s and Bachelor’s degrees) positively influences students’ completion rate in school while those with lower education level (primary and secondary education) negatively influences students’ completion rate in form four. This means that students from the background where parents had attained higher level of education were more likely to complete school compared to those from background where
parents had low education level. In addition to this, the study established that students whose parents had attained primary education were more prone to drop out of school than learners whose parents had attained Bachelors and Masters Degrees. This implies that parental level of education had a great influence on students’ retention.

5.2.3 Effects of Parental Income on Retention and Graduation

The study found out that 4 principals who reported that parents in their schools had high level of income obtained a overall mean deviation of 5.50, 28 principals who indicated that parental level of income was average obtained an overall mean of 3.07 whereas 12 respondents who indicated that parents in their current schools had low level of income obtained a mean deviation of -8.00. The negative mean scores revealed that principals in those schools registered a decrease in the number of students who graduated in form four while positive mean scores shows that principals registered 100% completion rate. From these findings, it therefore emerged that schools that registered decline in completion rates also had higher number of parents whose income level was low. This means that parental level of income had a great influence on students’ retention and graduation rates. The study established that most of the parents from the schools that registered high students’ dropout rates had low level of income, meaning students’ from low income families were more prone to drop out of school compared with students from high income households. The results further implied that low level of income was associated with low graduation rates of the students.

5.2.4 Influence of Home-School Relations on Retention and Graduation

Regarding the fourth objective of the study which sought to determine the influence of home-school relations on retention and graduation, the study established that all
(100.0%) the school heads approved that school; invited parents in school functions, encouraged parents to take part in their children education and also regularly held meetings with parents to update them on the on-going school activities. Over 70.0% of them further reported that school fosters positive relations with the parents and the community and also invited parents to give solutions to students problems related to their performance. This implies that most of the schools were involving parents in school activities and therefore portraying a positive home-school relationship. However, among the few who were not creating good home-school relations, the study found that poor home-school relations had a negative impact on students’ retention and graduation rates.

5.3 Conclusion

From the findings as summarized above, the following conclusions were made:-

i. Tuition waiver fund had a positive impact on students’ retention and graduation rates.

ii. Students from the background where parents had attained higher education level were highly expected to complete school compared to those from the background where parents had low level of education. In addition to this, the study established that students whose parents had attained primary education were greatly expected to drop out of school than students whose parents had attained Bachelors and Masters Degree.

iii. Parental level of income had a great influence on students’ retention and graduation rates. The study established that most of the parents from the schools that registered high students’ dropout rates had low level of income, meaning students’ from low-income families were more expected to drop out of school than students from high income families.
iv. In terms of home-school relations, the study found that most of the schools were involving parents in school activities and therefore portraying a positive home-school relationship. However, among the few who were not creating good home-school relations, the study found that poor home-school relations had a negative impact on students’ retention, graduation rate in schools.

v. Finally, the study established that the most beneficiaries of tuition waiver fund were; learners from low income households and those from the background where parents had attained low level of education and low income level. This shows that parental socioeconomic factors played a great role in students’ education. The study therefore, concludes that tuition waiver fund had a positive impact on students; there is need for reviewing and understanding how family and community factors shape the educational outcomes of the learners.

5.4 Recommendations of the Study

Arising from the study findings, the following suggestions were made

i. The government should offer support to the outstanding literacy classes and strengthen adult literacy programmes in the communities so as to boost literacy level of the parents. This would help to create awareness among the adults on the importance of educating children thereby portraying the value of education in the society.

ii. Since most of the students failing to complete school were from low-income families, the government strategies aiming to improve access to secondary education for the poor must endeavor to recognize and target collectively disadvantaged children in the community who require financial help so as to
ensures that these children get access to education and also are retained in school until they graduate.

iii. The study established that home-school relations had a great impact towards students’ retention and graduation rate. The current study suggests that teachers should frequently involve parents in their children’s education and character formation. This can be achieved through invitation of parents in schools to discuss about students’ academic progress and also issues related to discipline. This would help to reduce dropout cases which may come as a result of lack of parental participation in children learning, poor academic performance among the students or indiscipline cases, hence enhancing students’ retention and graduation rate.

5.5 Suggestions for Further Research

i. The current study only focused on parental factors influencing students’ retention and graduation in public secondary schools. There is therefore a need to find out how other factors such as school, students and community factors influence students retention and graduation in public secondary schools in Kiambu County.

ii. Since the study was undertaken in Kiambu County only, the findings of the study may not be generalized in other counties and the country as a whole; as such a similar study should be carried out in other counties in order to ascertain whether similar findings would be obtained.
REFERENCES


APPENDIX A

QUESTIONNAIRE FOR HEADTEACHERS

Introduction

This research is meant for academic purpose. It will determine the socio-economic factors associated with retention and graduation rates in the context of tuition waiver fund in public secondary schools in Kiambu County. You are politely asked to answers these questions as precisely and honestly as possible. Answer to these questions will not be disclosed. Kindly do not write your personal information or that of your school anywhere on this questionnaire. Please mark [✓] where appropriate or fill in necessary information on the spaces provided.

Section A: Background information

1. Your gender [ ] Male [ ] Female
2. Academic qualifications
   [ ] MEd [ ] BEd [ ] Dip/Ed
   Other (Specify) .................................................................
3. i). Your experience in headship in years ....................years
    ii). Your experience in headship in the current school .............years

Section B: Enrolment and Retention Rate

1. Your school enrolled how many students in:
   (i) Year 2005 ......................
   (ii) Year 2006 ......................
   (iii) Year 2007 ......................
   (iv) Year 2008 ......................
   (v) Year 2009 ......................
   (vi) Year 2010 ......................
   (vii) Year 2011 ......................
   (viii) Year 2012 ......................
2. How many students finished form four in your school in:
   (i) Year 2005 ......................
   (ii) Year 2006 ......................
   (iii) Year 2007 ......................
   (iv) Year 2008 ......................
   (v) Year 2009 ......................
   (vi) Year 2010 ......................
3. How many students dropped from your school in:
   (i) Year 2005 ..........................
   (ii) Year 2006 .........................
   (iii) Year 2007 .........................
   (iv) Year 2008 .........................
   (v) Year 2009 ...........................
   (vi) Year 2010 .........................
   (vii) Year 2011 .........................
   (viii) Year 2012 ........................

Section C: Parental Level of Education

1. How would you rate the education levels of parents in your school?
   [  ] Masters Degree
   [  ] Bachelors’ Degree
   [  ] Tertiary College
   [  ] Secondary education
   [  ] Primary education
   Any other specify…………………………………………………………………

2. In your opinion, does parental education affect students’ access and retention in schools?
   [  ] Yes       [  ] No
   Give reasons for your answer ..............................................................
   ...........................................................................................................
   ...........................................................................................................
   ...........................................................................................................
   ...........................................................................................................

Section D: Parental Income

1. How would you rate the income levels of parents in your school?
   [  ] Very high
2. In your opinion, do parental income levels affect students’ retention and graduation in schools?

[ ] Yes          [ ] No

If yes, in which ways?

……………………………………………………………………………………
……………………………………………………………………………………
……………………………………………………………………………………

Section D: Home-school relations

3. The table below presents statements about home-school relations that could influence secondary school retention and graduation. Based on your experiences as a headteacher, indicate whether you agree or disagree with each statement, by ticking True or False on the appropriate column.

<table>
<thead>
<tr>
<th>Home-school Relations</th>
<th>True</th>
<th>False</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our school fosters positive relations with parents and the community around the school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The school invites parents in school functions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents are encouraged to take part in their children’s education by following up on their performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The school involves parents only in the school activities that have to do with their children’s performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The school regularly has meetings with parents to update them on the goings-on in the school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents are invited to give solutions to students’ problems related to their performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The parents in our school are not cooperative</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. In your opinion, how do positive home-school relations influence the retention and graduation of education to students in secondary schools?

……………………………………………………………………………………
……………………………………………………………………………………
……………………………………………………………………………………

……………………………………………………………………………………
5. In your opinion, how do negative home-school relations affect the retention and graduation of education to students in secondary schools?

Section E: Measures for Improving Retention and Graduation

1. What in your view do you propose the following stakeholders in education can do to advance completion and participation in secondary education?

(a) Government

(b) Parents

(c) School principals

(d) Teachers

(e) Community

(f) Students themselves
APPENDIX B

INTERVIEW SCHEDULE FOR KEY INFORMANTS (CEO, QASOs)

<table>
<thead>
<tr>
<th>Thematic question</th>
<th>Possible probing questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is your assessment of students’ flow on:</td>
<td>i) Retention?</td>
</tr>
<tr>
<td>- i) Retention?</td>
<td>ii) Graduation?</td>
</tr>
<tr>
<td>2. What are the socio-economic factors that lead to:</td>
<td>i) Retention of students?</td>
</tr>
<tr>
<td>- i) Retention of students?</td>
<td>ii) Graduation of students?</td>
</tr>
<tr>
<td>3. What are the socio-cultural practices and beliefs that contribute to:</td>
<td>i) Retention of students?</td>
</tr>
<tr>
<td>- i) Retention of students?</td>
<td>ii) Graduation of students?</td>
</tr>
<tr>
<td>4. Which are the school-based factors that influence:</td>
<td>i) Retention of students?</td>
</tr>
<tr>
<td>- i) Retention of students?</td>
<td>ii) Graduation of students?</td>
</tr>
<tr>
<td>5. What are the students characteristics that influence:</td>
<td>i) Retention?</td>
</tr>
<tr>
<td>- i) Retention?</td>
<td>ii) Graduation?</td>
</tr>
</tbody>
</table>

6. What measures could be taken by the following to develop retention and graduation of pupils in day secondary schools?
   a. Government
   b. Parents
   c. Head teachers
   d. Teachers
   e. Community
   f. Students
APPENDIX C

RESEARCH PERMIT
THIS IS TO CERTIFY THAT

Prof. Dr. M. Ms. M. (Institution)

Jane Wambui Gathuru

(Address) Kenyatta University

P.O. Box 43844-00100 Nairobi

has been permitted to conduct research

On the topic: Impact of emotion on academic performance in secondary education in Kambu County, Kenya

for a period ending 30th June 2020

KSh 1000

Research Permit No: NAS/IRG/44/10/34/4560

Date of handing over receipt: 23rd September 2020

Signature

National Commission for Science, Technology and Innovation

Kathleen M. Kambu

District

County

(Please write in full)

Research Officer

National Commission for Science, Technology and Innovation

(Please write in full)

P.O. Box 43844-00100 Nairobi.