GENDER DISPARITY IN ENROLMENT AND DROPOUT IN PRIMARY EDUCATION: THE CASE OF DEHANA WEREDA, AMHARA NATIONAL REGIONAL STATE, ETHIOPIA.

INDIRA GANDHI NATIONAL OPEN UNIVERSITY SCHOOL OF CONTINUING EDUCATION

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GENDER DISPARITY IN ENROLMENT AND DROPOUT IN PRIMARY EDUCATION: THE CASE OF DEHANA WEREDA, AMHARA NATIONAL REGIONAL STATE, ETHIOPIA.

A Thesis Submitted to the In partial fulfillment of the M.A in Rural Development to Indira Gandhi National open university, (IGNOU)

By

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DECLARATION

I hereby declare that the Dissertation entitled GENDER DISPARITY IN ENROLMENT AND DROPOUT IN PRIMARY EDUCATION: THE CASE OF DEHANA WEREDA, AMHARA NATIONAL REGIONAL STATE. Submitted by me for partial fulfillment of the M.A. in Rural development to Indera Gandhi National open University, (IGNOU) New Delhi is my own original work and has not been submitted earlier either to IGNOU or to any other institution for the fulfillment of the requirement for any course of study. I also declare that not chapter of this manuscript in the whole or in part is lifted and incorporated in this report from any earlier work done by me or others.

Place: Wag Himera Zone ,Dehana Woreda Signature……

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CERTIFICATE

This is to certify that Mr. Miteku mulugeta abebe student of M.A.(RD)from Indera Gandhi National Open University, New Delhi was working under my supervision and guidance for his project work for the course MRDP -001. His project work entitled GENDER DISPARITY IN ENROLMENT AND DROPOUT IN PRIMARY EDUCATION: THE CASE OF DEHANA WEREDA, AMHARA NATIONAL REGIONAL STATE. Which he is submitting, is his genuine and original work.

Place: Addis Abeba Signature:----------

Date: Name: Dr wondemagegn chekol gedamu (PHD)

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BIOGRAPHICAL SKETCH

The author was born in Dessie town, South wollo Zone of Amara Region, in July 19 1982. He attended his primary and secondary school education at Dessie Public School. In 2000, he joined Hawassa University and graduated with B.Sc. degree in Rural development &Family science . Soon after graduation, he was employed by the Ministry of Agriculture in different districts of Wag Himera Zone as expert, technical team leader Wereda Office of Agriculture and Rural development. Then, in June 2010 he joined the School of Graduate Studies at Indera Gandhi National Open University(IGNOU).

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Place: Wag Himera,Dehana

Date of Submission**:** April, 2014

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LIST OF ABBREVIATIONS

ADEA	Association for the Development of Education in Africa
CSA	Central Statistical Authority
CRC	The Convention of the Rights of the Child
DFA	The Dakar Framework of Action
EFA	Education For All
EMIS	Educational Management Information System.
ESAA	Education Statistics Annual Abstract
ESDP	Education Sector Development Program
ETPS	Education and Training Policy and Strategy
FAWE	Forum for African Women Educationalists
FDRE	Federal Democratic Republic of Ethiopia
GER	Gross Enrolment Rate
GPI	Gender Parity Index
GO	Governmental Organization
Ha	Hectare
HHh	Head of the Household
MOE	Ministry of Education
NER	Net Enrolment
NGOs	Non Governmental Organizations
PAs	Peasants' Associations
SPSS	Statistical Package for Social Sciences
TLU	Tropical Livestock Unit

List of Abbreviations (Continued)

TTC	Teachers' Training Center
TTI	Teachers Training Institute
UN	United Nation
UNAIDS	United Nations Program on AIDS
UNESCO	United Nations Education, Science and Culture Organization
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WAD	Women's Affairs Department
WAO/PMO	Women's Affairs Office of the Prime Minister Office
WFP	World Food Program
VIF	Variance Inflation Factor

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ABSTRACT

The study examined gender disparity in enrolment and dropout situation of primary school aged children of Dehana Wereda of Wag Himera Zone in Amhara Region located at 801 Km North of Addis Ababa. In the Wereda even though recent trends of enrolment and dropout are encouraging a large number of children, majority being girls, are still out of school. The specific objectives were to assess the existing gender based enrolment and dropout in primary education and to identify the major economic, cultural and parental factors in enrolment and dropout in primary education. A random sampling method was followed to select the PAs and household heads of enrolled, not enrolled and dropout categories of children proportionally for the study. Based on this, the necessary data were collected from a total of 150 household heads where in 116 were male headed and 34 were female headed and 150 primary school aged children in the selected households of the three categories. Pre-tested structured interview schedule was used for collecting the essential data and group discussion and personal observation were used to crosscheck the data collected through formal survey and also to generate additional contextual data. The data were analyzed using methods descriptive and econometrics. The logit model results revealed that the decision of enrolling and dropping out children from school were determined by a variety of factors. Birth order of the child, perceived costs of schooling, sexual harassment, lack of personal safety, presence of female role models, number of total children in the household, household heads' attitude towards children's education, household heads' level of aspiration on children education, size of livestock holding and early marriage had a significant influence decision of enrolment of children to school, whereas households' age, education level of the household, alternative labour use, social participation, cosmopoliteness, size of farm land holding and occupation of the head did not significantly affect the decision of sending children to school. With regard to dropout situation, education level of the household, birth order of the child, school distance, perceived costs of schooling, alternative labour use, lack of personal safety, presence of female role models, number of total children in household, level of aspiration, size of livestock and early marriage had a significant influence dropout situation, whereas, age of the household head, sexual harassment, household attitude towards children's education, social participation, cosmopoliteness, and size of farm land did not significantly influence the decision made by household head to withdraw children out of school. Therefore, policy should address limited overall enrolment of school aged children and gender disparities in access to enrolment and constraining economic, cultural/traditional, parental and school factors. In general, lowering school distance, improving the rights and status of girls to primary education through legal actions, improving parents' level of attitude towards

children's education and diversifying the households occupation are essential to improve the provision of education at all levels to meet the millennium goal of universal education through improving access and reducing dropping out situations and disparities among girls and boys.

1. INTRODUCTION

1.1 Background

Ethiopia is one of the poorest countries in the world where poverty is widespread and multifaceted. The current population of Ethiopia for the year 2005 is 77,431,000 (seventy seven million, four hundred and thirty one thousand) (UN, 2006). With an annual growth rate of 2.36 percent, the population growth is fast and 43.9 percent of its population is below 14 years of age. The proportion of male and female population is almost the same with 50.1 percent males and 49.9 percent females (CSA, 2004).

Access to education in Ethiopia is the most limited in this region of Sub-Saharan Africa. The illiteracy rate is high, approximately 70% for females and 50% for males (Lasonen, 2005)

The Convention of the Rights of the Child (CRC) clearly states that every child has the right to education, at least basic education. Although it is over 50 years since that declaration was adopted, 125 million children have no access to education, and many more adults, over 900 million, girls and women being the majority, remain illiterate throughout the world (USAID, 2003 cited in Mohammad *et al*., 2006).

Among the six goals put forward in the Dakar Framework of Action (DFA) two of them specifically focus on the elimination of gender disparities and inequality. These are: "(ii) ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to the minorities have access to and complete free and compulsory primary education of good quality" and (v) The Elimination of gender disparities in primary and secondary education by 2005 and achieving gender equality in education by 2015 with focus on ensuring girls full and equal access and achievement in basic education in good quality" (UNESCO, 2000).

The dream sounds sweet, but there are many hurdles that impede many countries from achieving the goals. The hopes and aspirations to universalize basic primary education remains a matter of great concern at the dawn of the 21st century. Millions of children in Ethiopia still fail to gain access to schooling, and even larger numbers among those who do enroll leave prematurely, dropping out before the skills of literacy and numeracy have been properly gained. A majority of such children are girls.

Ethiopia has a long and rich history of educational traditions. Indigenous education was offered by all ethnic and linguistic groups and remains an important transmitter of cultural identity from one generation to the next (Tassew *et al*, 2006).

The establishment of a central state authority and permanent urban seat of power, the arrival of foreign embassies, the development of modern economic sector and other conditions were some of the objective conditions that called for modern education in Ethiopia.

In his effort to strengthen modern education, Emperor Menelik II took the first initiative to open Menelik II school in 1908 in Addis Ababa, although he had already started a school in the palace primarily for the son's of the nobility by 1905 (Wana and Tsion 1994; cited in WAD, 2000). The opening of the first girls' school in Addis Ababa in 1931 by Empress Menen marked the beginning of the provision of modern education for girls in Ethiopia (Tirufat, 1998; cited in Emebet, 2003).

The Italian occupation (1936-1941) seriously disrupted the educational system that had just begun to emerge (Teshome, 1979; cited in Yirga, 2004).

The main emphasis of post-war stage was the creation of an educational system that could provide for small corps of clerical, technical and administrative personnel to run the government machinery (Lipsby, 1962; cited in Mulugeta, 1998). To meet this need reconstruction began with the re-establishment of the Ministry of Education in 1942.

By 1974, when the revolution erupted only 15.3 percent of the age cohort were attending primary schools. The structure and organization of educational activities were changed alongside the objectives of the communist government (Teshome, 1979; cited in Yirga, 2004).

Ethiopian education during the current government, the Education Sector Development Program (ESDP), has a long range-rolling Plan with a focus on the comprehensive development of education over a twenty-year period. The final goal of the ESDP for the primary education is universal primary enrolment by the year 2015 and at the same time improving quality, equity and efficiency of the system at all levels (Tassew *et al,* 2006).

Education is known to enhance productivity, raise incomes, reduce fertility and improve health and nutrition. Moreover, it contributes a lot to combat hunger and poverty and improve the quality of life of the most vulnerable (Amanuel and Mulugeta, 1999).

No country, whatever its stage of economic development, in the modern world can afford to do anything less than provide primary education to all its people. That is essential to survival and development. Literacy is expensive, but illiteracy would be far more expensive in the long run (World Bank, 2004).

Education of women plays a significant role in the full dimensions of development of a country. Teshome (2002) indicated that, social returns to female education are high and exceed the returns to male education. That is, female education improves children's health, reduces the number of unwanted births, and causes women to have a small number of family sizes.

The majority of Ethiopian population lives in rural areas and they are engaged basically in subsistence farming. Girls are a source of supporting labor for overburdened mothers in rural Ethiopia. Thus, the possibility of girls to go to school not only to distant areas but also nearby areas is very low (Asmaru, 1998; cited in Mohammad *et al., 2006*).

The problem of gender disparity in education is high in rural areas of most developing countries. In most rural areas traditional and cultural attitudes and beliefs are still very strong which discourage girls' education.

According to past study results, the most important reasons identified for dropping out of school for girls and boys include lack of money to pay for school expenses (direct costs of schooling), needs for child labour (opportunity costs), parental attitude and support, early marriage, distance between home and the school and overage enrolment (Teshome, 2002).

Wastage in education, particularly in the form of dropping out from schools, is a major problem of the education sector in developing countries including Ethiopia. The rate of dropout has been increasing in Ethiopia in the past several years. In addition to the low participation, dropping out at early grades of primary education is a major obstacle to the efforts towards universal primary education and adults' literacy. Despite the policies of automatic promotion in the first three grades and free tuition, the wastage in early stage (grades) is high (Habtamu, 2002).

Today, although the enrolment and participation of female students has increased and the gender gap has been reduced to some extent, a number of studies have shown that in most developing countries including, Ethiopia, females receive less schooling than males (Emebet, 2003). In Wag Himera zone,in the case of Dehana woreda , the gender disparity in enrolment and dropout has been reduced though a number of children are still out of school.

To provide primary education for primary school aged children, integrated effort has to be carried out by all concerned bodies in improving the access of schools with better facilities, improving quality of education, reducing the parental and cultural factors that could reduce participation of children. Thus this study is initiated in view of understanding the existing enrolment and dropout situations of primary school aged children of Dehana worda of Wag Himera Zone of Amhara Regional State. Moreover, it tries to find out the constraining factors for lower participation of daughters in the Wereda.

1.2 Statement of the problem

Ethiopia is known for high population growth rate of which the majority of the people are illiterate. The availability of schools, especially in rural areas is minimal and most of the school age children do not go to school.

The problem of access to education in developing countries is further complicated by high dropout rate. Among the serious obstacles to female education, premature departures or dropping out from schools by female students is notable in Sub-Saharan Africa (Teshome, 2003).

Under the existing level of accessibility to primary education, the rate of enrolment and dropout is varying for boys and girls. In Ethiopia, except for Addis Ababa, some towns and Tigray, a gender disparity in education is high with girls having significantly lower gross enrolment ratio than boys (ESAA, 2005).

Factors that influence the gender disparities in education included socio-cultural beliefs and practices, opportunity costs, relevance of education school environments, safety and security and teaching and learning activity (Okojie, 2001).

In Ethiopia, as it was studied by different researchers, the major factors responsible for the low participation and high dropout rate of children was categorized as family related, cultural and school related factors. Such factors include economic constraint, marriage by abduction, load of household chores, school distance, sexual harassment and early marriage (Emebet, 2003).

The education of girls and achieving gender equality are important elements of promoting development and advancement in people's life quality as well as a means to empowering women themselves (Ankerbo and Hoyda, 2003; cited in Tassew *et al*., 2006).

This study will also focus on the economic, cultural and household factors that influence dropout children from education. A more complex set of issues affecting girls' education are

traditional practices. Gender bias plays a role due to protection of daughters from potential danger as they go for early arranged marriages.

Though recent trends in Ethiopia are encouraging, the percentage of school age children who participate in primary education is still very low. The ESAA, 2005 education statistics revealed that Gross Primary Enrolment was 79.8% in 2004/05, this enrolment rate is less than sufficient for the country's requirements and development prospects (ESAA, 2005). In the study area recent trends are encouraging though a number of school age children, the majority being girls, are still out of school.

Today's girls are tomorrow's mothers and educating girls today is the right solution to break the vicious poverty cycle we have in this country and hence the main motive for this study is to bring the factual situation on face to help change the social stigma associated with girls education along with opening the eyes of policy makers to act to change the situation to develop an equalitarian society in which both the sexes have got equal rights of personal development and social justice.

However, there is no sufficient information on the over all enrolment and dropout situations and determinants, and whether these determinants affected household heads decision of enrolling and dropping primary school aged children. Most studies deal with children who already are the rolls and lack to address the situations of not-enrolled and dropouts.

This study included dropouts and not-enrolled groups of children also as data source to fill this research gap. It might help policy makers and concerned individuals at national, region, zone and Wereda levels to come up with the solutions that could increase the enrollment of children and reduce dropout rates. It will also add to efforts in improving the level of awareness on this area for those who want to study further and initiate other researchers to come with better solutions on this multifaceted problem of providing universal education for all primary school aged children in the country as a whole and study area in particular.

1.3 Objectives of the study

General objective

The general objective of this study is to see the existing general situations of gender disparity in education with respect to enrolment and dropouts in primary education. It tries to see the factors related to enrolment, to investigate the dropout of children from schooling and to find out reasons of the higher rate of early or premature departure of girls from effective participation in primary education in the study area.

Specific objectives

The specific objectives of the study are:

1. to assess the existing gender based enrolment and dropout in primary education, and

2. to identify the major economic, cultural and parental factors in enrolment and dropout in primary education.

1.4 Research questions

1. What are the existing gender based enrolment and dropout situations in primary education in the study area?

2. What are the major economic, cultural and parental factors in enrolment and dropout in primary education?

1.5 Significance of the study

In spite of the 1990 UNESCO conference's slogan, "Education For All (EFA)", access to schooling has been worsening in Ethiopia. Both EFA agenda and the Millennium Development Goals call parity in enrolments for girls and boys at primary level by 2005, and gender equality at all levels of education by 2015 (UNICEF, 2003).

Although there is an encouraging sign towards the achievement of the universal primary education by the 2015, by now Ethiopia couldn't narrow the gap in primary education in 2005 as per the plan.

Therefore, this study will help in devising strategies for improving access to all school aged children and moreover improve participation of girls in primary education the ultimate being narrowing the existing gender gap.

This study might help to know the reasons of poor enrolment situations and high dropout rates. Furthermore, it may provide gender disaggregated information that indicates the real situation of daughters, the socio-cultural and economic factors influencing them to go to school or dropout of school. It could help policy makers, institutions and other concerned bodies interested in designing to avert the worst scenario of primary education in the country.

Development planners in NGOs and line departments in the study area may also benefit from the result of the study in improving the status of primary education and specifically in bridging the existing gap between boys and girls towards breaking the vicious poverty cycle that existed in this country.

1.6 Scope and limitation of the study

The main objectives of the study were to assess the existing gender based enrolment and dropout in primary education and to analyse the major economic, cultural and parental factors in enrolment and dropout in primary education.

Ethiopia is a diverse nation in terms of culture, agro-ecology, ethnicity, resource endowment *etc*. and the decision of household heads to either enroll or dropout children from school constrained by the aforementioned and many more factors differently. Due to time and resource limitations for a graduate thesis research of this kind, the study is confined to one Wereda. Hence, the study cannot be typical with generalizations for the whole country.

However, recommendations and policy implications of the study could be used in other locations having comparable or similar context.

1.7. Organization of the Thesis

The remaining parts of the thesis are organized as follows: the second chapter deals with the review of literature on topics relevant to the study. The third chapter deals with the research methodology. Results, both descriptive and econometric, are presented and discussed in the fourth chapter. Chapter five summarizes the major findings of the study and draws appropriate policy implications.

2. REVIEW OF LITERATURE

2.1 Concepts and Definitions

2.1.1 Conceptual definition of terms

Gender- Gender is an analytical term to help distinguish between the biological dimension (sex) and the cultural one (gender). Traditionally society assumes that there are observable differences between the sexes. However, that personality, behavior or abilities are the result of differential socialization because these socially induced differences result in discriminatory reward, statuses, opportunities and roles. Gender roles in every society of the world are reflected in socio-economic levels exerting various degrees of constraints for both sexes, sharper on women's side, the majority of them found at lower status (Asresash, 2006).

Enrolment- refers the action of enrolling to primary school and remaining at least for one academic year.

Never enrolled children- Children who are out-of formal school and never attended in any school so far.

Educational wastage- refers to human and material resources spent or 'wasted' on pupils who have to repeat a grade or who dropout of school before completing a cycle. It denotes the inefficiency of a school system and refers also to the wasted opportunities for these children to develop the knowledge, skills, attitudes and values they need to live productive lives and to continue learning (UNESCO, 1998; cited in Habtamu, 2002).

Dropping out- dropouts are children leaving school and not enrolling in that or any other school before they have completed a cycle (Habtamu, 2002). Following entry, the critical factor determining retention is whether pupils stay in school or dropout. Once a child drops out, the probability of their returning to school is very low (WAD, 1999).

Opportunity costs -Due to a high demand for the children's service at home, parents become reluctant to send them to school, or just to give them enough time for school activities (World Bank, 2002 b).

Repetition- For some students, it may provide a vital second chance to make up for a learning deficiency such as recovery from a sickness or initial lack of familiarity with the language of instruction; however there is a tendency for those students who repeat to eventually dropout. In any case, repetition means that the same student occupies a place in the same grade in school for two years, thus making it difficult for the school to accommodate other young people who want to occupy that place. At a minimum, repetition is an inefficient use of scarce resources. For that reason, official policy in Ethiopia supports automatic promotion during the first cycle of primary education (WAD, 1999).

School Feeding- Provision of breakfast or lunch or both to students at school with the aim of improving their educational performance, attendance and nutritional status (Bergeron, 2001).

First cycle education- refers to primary education of grades 1- 4.

Second cycle education- refers to primary education of grades 5- 8.

2.1.2 Operational definition of terms

Dropout rate - the percentage of pupils who discontinue their learning from a given grade out of the previous year total enrolment in the same grade (MOE, 2003).

Gross Enrolment Rate (GER)- is the percentage of total enrolment in primary schools, irrespective of age, out of the corresponding primary school age population, ages 7-14 (ESAA, 2005). GER is a crude measure of coverage. Usually it includes under-aged and over-aged pupils and as a result it can be higher than 100%.

Net Enrolment (NER) – is a more refined indicator of coverage in terms of explaining the proportion of pupils enrolled from a specific age group. It is the best way of measuring

participation and is usually lower than GER since it excludes over-aged and under aged pupils while using the same denominator as the GER.

Primary Education- refers to grade levels one to eight in the Ethiopian context (MOE, 2004).

Primary School- In this study, primary school refers schools having grade 1-7 and 1-8.

Primary school age- the age range in which a child is expected to attend primary school (year 7-14 in Ethiopian case) (TGE, 1994).

Gender Parity Index (GPI) - is the ratio of female to male enrolment rates. In situation of perfect equality between boys and girls enrolment rates, GPI is 1 while 0 indicates the highest disparity.

Age grade distortion- refers to cases where school children were not in a grade level appropriate for their age. Normally the age of students in grades 1-8 have to be in the range of 7-14 and the starting age at grade 1 is seven (ESAA, 2005).

Birth order of the child- Greater adult labour endowment that can substitute child labour in a household was found to significantly increase the probability of child enrolment (Tassew *et al*, 2006). Children were more likely to attend school only when there was adequate labour in the household; more children aged 7-17 years as well as more male adults generally decreased children's work burden. Households invest less in the education of their first- born than in that of their other children.

Relation of the child to the head and spouse - refers whether on not the child is a mutual child or only related to either of them. Therefore, the importance of parental support for girls education is very crucial, and girls are disadvantaged if they lived with a guardian or foster parents. But their enrollment rates are higher if both parents live together, since unstable families discriminated against girls (Okojie, 2001).

Benefits of education

Primary education is particularly the foundation of any education system and its purpose is to produce a literate and numerate population and lay the groundwork for further education (World Bank, 1990). If girls in particular are target to benefit, the impact on the family and society can even be greater. That is why it is said that, 'to educate a man is to educate an individual, but to educate a woman is to educate a nation (quoted in MOE, 1996). Hence, education is indispensable for personal, cultural, social and political development.

Education has a big role to play in facilitating the means and aims in relation to the nature of every country's economic and social situation. According to Dreze and Sen (2002, Cited in World Bank 2002), education has five intrinsic values for improving social and economic conditions in third world countries, both benefits for communities and societies, as well as individual social benefits.

First of all education gives personal benefits for the individual in terms of self-confidence leading to motivation and interests in society. Society interactions are easier when persons are capable around the globe and that HIV infection rates are at least twice as high among young people who do not finish primary school as those that do. According to population Council in 2005, in a recent analysis of eight sub-Saharan African countries, women with eight or more years of schooling were up to 87% less lamely to have sex before the age of 18 compared to women with no schooling (UNAIDS, 2005; cited in Muhammad *et al*., 20006).

In general, investment in education for girls and women has been one of the factors why some countries (South East Asia, East Asia and Latin America) have had a significant progress in social and economic growth. Conversely, growth has for instance in the Middle East and North Africa been of limited scale which is one of the consequences of lacking investment in the education of girls and women. So, "education of females can be considered as one of the crucial element in breaking the cycle of poverty in many aspects. Lastly, as Nelson Mandela said, "education is the most powerful weapon you can use to change the world. It is also a

weapon that the world cannot do without in the fight against AIDS Education safe life" (UNAIDS 2005 cited in Muhammad *et al.*, 2006)).

2.2 Historical Overview of the Ethiopian Education

The paper starts with a brief overview of the history of educational development in Ethiopia to offer a better understanding of the developments and challenges of education in Ethiopia.

A detailed analysis of the origin and development of Ethiopian education may not serve our purpose here. However, a brief glance at its general features can serve as background information to the problems of quantitative expansion and qualitative improvement of education in Ethiopia.

2.2.1 Indigenous Education

Ethiopia has a long and rich history of educational traditions. Indigenous education was offered by all ethnic and linguistic groups and remains an important transmitter of cultural identity from one generation to the next. It aims at instilling in children the attitudes and skills appropriate for male and female social roles, emphasizing the duties and privileges derived from cultural values.

2.2.2 Religious Education

Ethiopia's early Christian heritage represents a second important element of Education in the country. In about the 4th century, the Ethiopian Christian church established a comprehensive system of education that provided Ethiopian cultural, spiritual, literary, scientific, and artistic life (World Bank, 1988).

Moreover the Ethiopian church, which up to the end of the 19th century had a virtual monopoly on education, strongly opposed the introduction of modern public education in the

country. The Ethiopian church feared the undermining potential of a state school system by European teachers (Tekeste 1990 cited in Yirga, 2004). The first attempts to open schools of a European type made by missionaries in the 16th century and in the 17th century were collapsed by a tremendous opposition from the Ethiopian church circle who feared the attempt made to convert the country to Catholicism. All attempts repeatedly made after those too were of no avail. Generally, until the end of the ninetieth century, education was totally left in the hands of the church.

Islamic Education in Ethiopia- A third major element of Education in Ethiopia was the influence of the Islam in Ethiopia. Arab culture and faith were adapted in much of the southern and South-eastern Ethiopia. Non-formal school system was established to teach the ethics and theology of Islam. Designed to impart skills and knowledge within the religious realm, the Islamic education system emphasized reading and recitation in Arabic. Like the church, the mosques in the Muslim areas had a parallel function in running chronic schools starting from the 7th century in Ethiopia. But unlike the church schools, the Quranic schools were maintained by the local committees themselves and received no state assistance of any kind (Markokis, 1994; cited in Yirga, 2004). The lack of assistance from the state and the opposition from the church limited the operation of such schools only to the centres of Islamic faith where community support was available (Ayalew, 1989; cited in Yirga, 2004).

2.2.3 The Introduction of Modern Education to Ethiopia

The introduction of modern education to Ethiopian was not an accidental happening. Rather, it was the outcome of the objective conditions in the country. The establishment of a central state authority and permanent urban seat of power, the arrival of foreign embassies, the development of modern economic sector and other conditions were some of the objective conditions that called for modern education in Ethiopia. Particularly around the end of the 19th century the practice of sending young Ethiopian abroad for higher education, become more intensified in two directions. On the one hand, the foreign missionaries were convinced that young Ethiopians who were educated abroad and had imbibed western culture would be effective instrument for spreading their religious faith in Ethiopia. On the other hand, Emperor

Menelik had a very strong desire to establish a strong government in the country. Thus, having learned of the advantages of modern education from those young Ethiopians who were sent to abroad by the missionaries for the religious purpose and who had returned home, Menelik decided to send a considerable number of Ethiopians to various European countries (Ethiopian observer, 1962; cited in Yirga, 2004).

Some of the young Ethiopians who were sent abroad by both the government and the religious institutions come back with the desire of modernizing their country. They used the knowledge they had gained in the course of their modern education and tried to implement it particularly for the progress and prosperity of their country. Thus, the beginning of modern education in Ethiopia is directly related to the advent of foreign missionaries in the country. These missionaries opened schools and instituted modern education alongside their religious institutions in all the places where they were accepted or come into agreement with the feudal class.

Nevertheless, the establishment of modern schools was speeded up beginning with the turn of the 20th century owing to the efforts of Emperor Menelik and Ethiopian intellectuals who had returned from abroad. A proclamation encouraging the people to give greater emphasis for modern education had also been issued in 1898 (Blaten Geta Mahteme Selassie Wolde Meskel, 1962; cited by Yirga, 2004), which laid down the foundation for the spread of modern education in the country. Modern education officially commenced in 1908 with the opening of Menelik II School in Addis Ababa, marking a significant step in the history of education in Ethiopia. Soon after, Menelik himself opened three more schools one each in Harar, Dessie and Ankober. Following his examples, the regional governors also opened schools in Yirgalem, Gore and Harar. Mainly because of the opposition of the clergy, progress was very slow.

During Italian Occupation

During the Second World War in 1936, when Italy invaded the land, there were only 21 government schools and few other mission schools with a total enrolment of 4200 students (Teshome, 1979; cited in Yirga, 2004). The Italian occupation (1936-1941) seriously disrupted

the educational system that had just begun to emerge. Government schools were either closed down or were used for military purposes. To the extent that they were engaged in education, the Italians did much to disrupt the education system they inherited by their lack of interest and by their systematic elimination of educated Ethiopians (Richard Pankhurst, 1972; cited in MOE, 1999). The few pre-war educated youngsters were purposely and systematically massacred and the educational system had to start from a scratch when the country was liberated in 1941.

Post-war Educational Expansion

The government of Ethiopia began to lay down the educational foundation virtually from the scratch. The first post-war schools were opened in 1942, and there was extreme shortage of teachers and textbooks, although some British staff from the British Council was available to the government. The main emphasis at this stage was the creation of an educational system that could provide for small corps of clerical, technical and administrative personnel to run the government machinery (Lipsby, 1962; cited by Yirga, 2004). To meet this need, reconstruction began with the re-establishment of the Ministry of Education in 1942. From 1942 until 1955, the Ethiopian Government was engaged in the expansion of the education system. The Ethiopian Government continued to believe that education held the key to Ethiopia's development. The high expenditure on education in relation to total expenditure, as well as the geometric growth of student enrolment remains strong witness to the interest and commitment of the Ethiopian government to the expansion of education. According to Edward Jandy, (1948, cited by Yirga, 2004) the second highest item in the national budget was education.

Enrolment in government schools had reached nearly a quarter of a million pupils (Ethiopian observer, 1961; cited in Yirga, 2004).

Ethiopian Education during the communist Regime

By 1974, when the revolution erupted only 15.3 percent of the age cohort were attending primary schools. Kenya and Tanzania had reached a stage of universal primary education in

the mid 1970's. The other African countries like Somalia, the Sudan, Zimbabwe and Zambia had 50%, 51%, 72% and 95% respectively, of their primary school aged children enrolled at school (UNESCO, 1981; cited in Seyoum, 1986). Thus, the participation rate in Ethiopia before the revolution of 1974 was very low even by African standards Ayalew, 1989; cited in Yirga, 2004.

Following the change of social values, faith, and philosophy, the educational infrastructure has also changed drastically. The structure and organization of educational activities were changed alongside the objectives of the communist government. In the National Democratic Revolution Program of the Ethiopian Government in April, 1976, Educational Guideline was issued, which states "There will be an educational program that will provide free education, step by step, to the broad masses".

Ethiopian education during the Current Government

When the current government came into power, the Ethiopian education system was suffering from multifaceted problems. The main problems were related to the issues of relevance, quality, equity and access. As a result of previous neglect, Ethiopian education sector was characterized at all levels by extremely low overall participation rates (30% at primary). Its gross enrolment rate of 30% at primary was one of the lowest in the world and even less than half of the average for Sub-Saharan African countries. Girls' participation rates were much lower than those of boys, especially in rural areas. In addition, there were severe regional differences in access to education, ranging from 7% in Afar region to 87% in Addis Ababa City.

Physical facilities were disrepair because of war damage and absence of preventive maintenance; and the education sector was seriously under financed. In the light of these educational problems, it has become imperative for the current Ethiopian Government to design an appropriate education and training policy that gives insight for the overall educational development and reflect the international declarations on educational issues. As stated in the sections pertaining to education and human right issues of the constitution, every nation and nationality has the right to learn in its own language, at least at the basic education

and general primary level. Within the framework stated in the Education and Training Policy and Strategy (ETPS), the government designed the Education Sector Development Program (ESDP), which is a long range-rolling plan with a focus on the comprehensive development of education over a twenty-year period. The program was launched in 1997/98 with government's funding and support from ongoing donor assistance. The final goal of the ESDP for the primary education is universal primary enrolment by the year 2015 and at the same time improving quality, equity and efficiency of the system at all levels (Mauritius, 2003).

2.3 Gender and education situation

In traditional Ethiopia, the church and the mosque were the major institutions that were responsible for the dissemination of education. Even though these two laming centers played an important role in the development of nations; the enrollment of female in traditional education had been negligible. Some of the possible reasons why females had been left out from the main stream of intellectual life in traditional education of Ethiopia were since the ultimate aim of church school was to produce priests and deacons who were to serve the church, females were excluded from assuming such position. Similarly, participation of Muslim female in education was also considered as unnecessary.

Another possibility why the participation of females in church and quranic schools was negligibly low might be due to the fact that church and quranic education was quite rigorous and took a long time to complete. There was a lot of hardship and the training time took years to complete church schools or quranic schools, so there were a few numbers of females who got the chance to do so (Yelfign, 1999). As in the most traditional societies of the world, the other factors that might have operated against the education of female in Ethiopia were males dominance and the attitude towards females in most ethnic cultures. As Dolphyne (1991, cited in Yelfign, 1999) stated women's place is in the home and as such her major role is to be a wife or a mistress and a mother.

In 1931, the first government girls school named Empress Menen was established. However, this type of school did not include all female students. It was a boarding school that catered scholarship for students who passed grade eight examinations with good grades (Seyoum, 1986).

UNICEF (2000, as cited in Tilaye, 1999) reports that only 55% of the primary school entrants reach grade 5 in Ethiopia, while the figures are 74 and 67% for developing and Sub-Saharan African countries respectively.

Ethiopia's Education Sector Development (ESDP) launched in 1997 declares the target of achieving a Gross Enrolment Ratio of 50 percent from grades 1-8 by the year 2002, with a significant reduction in gender disparity. Various policy initiatives have been proposed to enable the realization of these targets. These policies have already begun to have impact especially in access for boys. But the access gains for girls have been less noticeable. Thus, over the past several years the gap between male and female gross enrolment ratio has significantly widened, calling into question the likelihood of Ethiopian education realizing the ESDP targets: Gaining entry, getting passed the first year of schooling, surviving the middle grades and, completing grades seven and eight and the grade eight exam (WAD, 1999). Generally ESDP targets and the study focus on retention.

2.4 Gender and enrolment situation

The number of primary schools on an average grew by about 3.5 percent over the last five years. Enrolment has reached to a little more than 9.5 million with an annual growth rate of 10.2 percent. Although this seems a remarkable growth, gross enrolment ratio stands at 68.4% while the net enrolment ratio was only 57.4% in 2003/04 (MOE, 2005). This means that more than 42% of school age children (7-14) are still out of school.

For instance, according to the same source indicated above, the total enrollment of girls at the primary level was 11.3% in 1949 and 31.9% in 1974. Once again due to similar reasons

mentioned under the traditional education, females' education in Ethiopia, should not surprise considering females' low rate of enrollment in education.

During the Derg regime (1974-1991), although girls' enrollment has shown an increase, it was very slow and fluctuated from time to time. However, the gross enrollment ratio of girls in primary level in 1994 had reached about 11% in 1991 (MOE, 2005). Surprisingly, the decline in the gross enrollment ratio was greater for boys than girls, due to the worsening of boys' enrollment (national military services) during the Derg regime (Seyoum, 1986). In addition to that, Ross *et al*, (1997, cited in Mauritius, 2003) underlined that demand for boys schooling was more vulnerable to the changes in the economic and political conditions than the demand for girls schooling that remained low throughout the period.

In Ethiopia, although modern education has been in existence for more than a century, still it has some problems. However, since the introduction of the New Education and Training Policy and Education Sector Development Programme, the female primary school participation has grown at the rate of 16.4% (MOE, 2000). Because the New Education and Training Policy of 1994, addresses the importance of girls education and states that "education will be geared toward reorienting societies attitude and value pertaining to and contribution of women in development and special attention will be given to women and those students who did not get educational opportunities in the preparation distribution and use of educational support inputs" (MOE, 2004).

According to Ayalew, 2005; cited in Herko, 2005 the percentage of female enrollment is slowly but steadily increasing. For example, the rate of enrollment in 1999/00 was 39.2%, 2000/01- 40.3%, 2001/02 - 40.9, 2002/03 - 41% and 2003/04 - 42.6%. That means it has not reached parity level. Therefore, as indicated in different sources, even though the overall access to primary education in Ethiopia is increasing much remain to be done concerning the gender gap.

Though recent trends in Ethiopia are encouraging, the percentage of school age children who participate in primary education is still very low. The ESAA, 2005 education statistics revealed that Gross Primary Enrolment was 79.8% in 2004/05, this enrolment rate is less than sufficient for the country's requirements and development prospects (ESAA, 2005).

The message for Ethiopia is that primary schooling should be the most important priority for educational investment. Lack of universal education has had dire consequences for Ethiopia: it is characterized by a high prevalence of preventable infectious diseases resulting in high rates of mortality and low life expectancy (World Bank, 2001; cited in WAD, 2004).

GER has been increasing at alarming rate in both sexes. The GER for the primary schools increased from 30.00% in 1994//95 to 68.4% in 2003/04. In 1994/95, among school age children, 70% were out of school. However, in 2003/04, this is reduced to only 31.6%, which is an encouraging achievement.

According to the EFA Global Monitoring Report (UNESCO, 2002), only those countries whose NER is 80% and above currently can achieve UPE in 2015. In this respect Ethiopia face a great challenge with 57.4 NER in 2003/04. If the Net Enrolment Ratio (NER) is considered, the number of out of school age children is very high (42.6%). It is even worse for girls. Nearly 50% of the school-age girls are out of school in the year 2003/04.

2.5 Gender and dropout situation

Not all children reach the last grade of primary school. Ensuring that children remain in school until the last grade of primary schooling is another major challenge. In about one-third of countries with data, less than two-thirds of the pupils enrolled in primary school reach the last grade. The problem is particularly acute in sub-Saharan Africa (UNICEF, 2003).

The problem of access to education in developing countries is further complicated by high dropout rate. To see this issue with an instance, as UNESCO (cited in World Bank, 2002b), among 96 million children enrolled in grade one for the fist time in 1995, 24 million (25 percent) were likely to abandon their schooling before they reach grade five. Even those who survive were not in comfortable condition to attend classes regularly. Hence, low enrollment, irregular attendance, and high dropout rates are among the chronic problems in the educational systems of most developing countries.

Among the serious obstacles to female education, premature departures or dropping out from schools by female students is notable in Sub-Saharan Africa. Early departures of girls from schooling certainly result in wastage. Wastage here means the inefficient utilization of both human and economic resources by the education system (Njau and Wamahiu, 1998; cited in Teshome, 2003). The drop out of female learners from schools denies them the opportunity for employment as well as the means to increase their social and political participation. In addition, the non-completion of schooling by females contributes to their low social status in society as well as to their reduced decision-making power in the household and over their lives. Given the economic and social benefits of female education, the drop out of female students from schooling represents a significant regression in the development of nations. The dropout of children from schools is due to a complex interplay of cultural, economic and parental factors. Finding and implementing solutions to this problem has implications well beyond the benefits to individual female students, particularly in Africa. It represents a way of slicing through a variety of social, economic, cultural and political problems that beset the continent (Teshome, 2003).

Enabling children to complete their education is to invest in future progress and better standards of life with multiplier effects. To be able to make efforts that improve wastage due to dropouts requires a clear understanding of the extent, causes, consequences, and policy responses made to the problem of female dropouts. This understanding will be used as benchmarks from which new actions are to take off.

2.6 Gender disparities in education

Several studies in Ethiopia indicated that same as in other developing countries, in all educational levels, girls enrollment and participation is usually below that of boys. Similarly in Amhara also like the other regions of Ethiopia or the same as the whole country, the situation of gender inequality is the main problem, although it showed an increment for the last few years. But the rate of change was too small. That means it is below the standard of sub African countries.

Over the past three decades in Ethiopia, the participation rate in primary education has gone up and then back down and now once again is rising. These fluctuations mainly reflect shift in the attendance of young boys; during favorable economic times they flock to the schools, but in bad times they stay home or seek other ways to help the family economy. Through out this period, the rate of participation for girls has remained modest.

As a research project on gender and education showed a gap in net enrolment means many girls of school age are out of school. Thus, a lot still remains to be done to bridge it and to make sure that all girls enroll and continue to in the system till they complete the required level (WAD, 2004).

2.7 Determinants of enrolment and dropout

The reasons for females' low enrollment and participation can be attributed to different factors. Current studies in Sub- Saharan African countries also indicated that obstacles to girls' education are low public expenditure on education lack of commitment to implement gender related interventions, school related constraints and demand side constraints (Okojie, 2001). In the same way, Sutton (1998, cited in Tilaye, 1999) stated that implications of girls' participation in education systems concern economic, household, and socio-cultural and school system factors.

Other factors that influence the gender disparities in education included socio-cultural beliefs and practices, opportunity costs, relevance of education school environments, safety and

security, and teaching and learning activity (Okojie, 2001). Regardless, there are scholars who argue that girls will benefit from only girls school especially in country where cultural barriers such as harassment, abduction, and early marriage are rampant and influence the school enrollment of female students.

Furthermore, students from a number of countries identified many factors that hindered girls' education. They include family factors and school factors that limited girls' access and performance. Within nations the main sets of factors explored in the literatures as determinants of female participation include economic conditions of the household, cultural and religious values, parental aspirations for female education, distance to school, and various other school factors (Stromquist, 1989; cited in MOE, 2003). The findings of Okojie (2001) showed that factors inhibiting girls' access to education are family factors, individual/personal factors, community factors, school factors and cultural factors. Therefore, although at the primary level, the enrollment figures for girls might be little comparable to these for boys, but as one goes up in the education ladder the proportion of girls drops rapidly.

The reason for non-enrollment and drop out are very similar to each other. Poor home environment, poor school environment and parental expectations from daughters' education are the main reasons for the low school participation (Wanna and Tsion, 1994; cited in WAD, 2003).

The main reasons for the low enrollment and dropout of female students are labor demand by family, distance from home to school, parents attitude towards girls education, early marriage, inability to buy learning materials, unsafe road condition, pregnancy and fear of abduction (Assefa, 1991; cited in MOE 2000). Similarly, Tilaye (1999) indicated that low employment opportunities for educated females, excessive involvement in domestic chores and parental hesitation to afford daughters' educational expenses were the main reasons for low females education. Cultural impediments to girls education were early marriage and abduction (Emebet, 2003). In the same way, Yelfign (1999) indicated that the reasons for smaller number of girls than boys in school were lack of accommodation and financial support early marriage, fear of abduction and harassment.

For the sake of convenience in this study the factors were dealt with under subheadings of family related factors, school related factors and socio-cultural related factors.

Family plays a very important role in determining the degrees of access that female students have to education and their level of achievement. Kasente (2003, as cited by Habtamu, 2002) noted that father can be a player in enhancing girls access to primary education and in urban as well as in some rural areas, mother also either jointly or with the father or singly can influence the decision for a girl to enroll in school. Thus, there are many family related factors including parental schooling, household responsibilities, family size, parents' education level, and area of residence, family income, and so on.

2.7.1. Household related factors

Age - According to Mulugeta (1998), the link between school enrolment and age of the head was found to be positive. Manifestly older parents were found to be sending their children to school as a forward-looking investment because they feel that they will be helped by their children's income later, perhaps in old age. The returns to education are probably more pertinent to low-income families with children at school. Such families may view parental investment in education as a source of supplementary income to their inadequate wages and to those who take the long view as an insurance against insufficient retirement benefits. Beyond this there are psychological returns when ones' children are educated, successful and independent, and in the case of rural parents, when their children have non-agrarian occupations, which marks for them an occupational liberation.

But the results of a study by Herko (2005) indicated that older parents are less likely to send their daughters to school than younger parents.

Child labour – The proportion of children who started working at the age of five was higher for the rural (41%) because they assisted parents in farm activities and livestock herding from an earlier age (Tassew, *et a*l, 2006).

Schooling was highly affected by children's involvement in productive and household activities. Children might have been late or absent from class due to their involvement in work activities and may spent less time studying and doing homework (Tassew, *et al*, 2006). According to them, among children who were attending school and working, about 39 per cent responded that their involvement in work had affected their schooling.

Owners of land and livestock who are not able to hire productive labour may have an incentive to use their children's labour instead of sending them to school. In the case of Ethiopia, however, access to, or ownership of assets that are used to in child work activities (or that complement child work) may reduce the probability of a child attending school (Tassew, *et al*, 2006).

Given the marked gender division of girls being engaged in housekeeping activities and boys engaged in productive activities, we can assume that the negative effect on schooling was similar for both productive and housekeeping activities.

In terms of indirect or opportunity costs, the probability of enrolment is lower for children with higher opportunity costs in relation to household income and the expected benefits of schooling (World Bank, 2004).

Parents' education level - Several of the studies showed that children of educated parents were more likely to be enrolled in school than those of uneducated parents. Moreover girls have better chances if both parents were educated, uneducated parents prefer to send boys to school (FAWE, 2001).

Regarding parental schooling, King and Hill (1994, cited in WAD 1999) said that, parents' level of education has an impact on the girls' education career and professional development. Behrman and Wolf (1983, cited in Emebet, 2003) said that the level of parental education often affects the enrollment and success rate of female students. Furthermore, educated women are more likely to send their children to school, and also acknowledge the special

importance of educating their girls. Therefore, these evidences showed that the educational background of the parents could also influence female schooling.

The impact of parental education on child enrolment has been much studied and has been used as an indicator of intergenerational multiplier effect of schooling (World Bank, 2004).

Maternal education- Educated women are more likely to send their children to school, and also acknowledge the special importance of educating their girls (Emebet, 2003). Moreover, the higher levels of mother's education the less likely and adolescent is drop out particularly in the case of girls (Lloyd *et al*., 1998; cited in UNICEF, 2003). Similarly Possi (1999; cited in Tassew *et al*., 2006) said that mother's education is important as it influences girls enrollment and participation in education. Therefore these evidences showed that the educational background of the mothers could also influence female schooling.

Domestic work is a significant reason for non-attendance and dropping out, and more so for girls than for boys. And the resultant effect is that majority of Ethiopian women are illiterate. High infant mortality rate, poor school performance of children, poor health condition of the majority of the citizens, poor labor productivity of the adults and poor life expectancy are some of the indicators of poor educational status of the present mothers of Ethiopia (World Bank, 2002).

According to the World Bank (2002) report, the single most important factor in determining a child's health and nutritional status is its mother's level of education. Educated women have healthier, fewer and more educated children. It improves mothers' knowledge and use of health practices that reduces infant-mortality. Different studies show academic performance and mental ability of pupils with good nutritional status are significantly higher than those with poor nutritional status, independent of family income, school quality and teachers ability (UNESCO, 1997).

The world conference on “Education for all” held in Jomtien, Thailand in 1991, drew attention to the gender gap in educational opportunity and its consequences for human development. Similarly, The Beijing platform for Action (1995; cited in WAD, 2004) emphasized that investing in formal and non-formal education and training for girls and women has proved to be one of the best means of achieving sustainable development, and economic growth. Thus with out education of women it is impossible to be successful in development.

Family size/Composition – Girls are discriminated against schooling in large households. The larger the number of children of school age, the lower chances of enrolling girls and the higher female dropout rate, since earlier born daughters are often kept at home or withdraw from school to care for young siblings (Ojojie, 2001).

Household size influences the amount of resources and time invested by parents in child schooling (Tassew, *et al.*, 2006). Resource limitations may, therefore, force large family households to discriminate among their children, but there were differential impacts on girls versus boys and younger versus older children.

2.7.2 Economic factors

Family income/Financial problem: The expansion of human capabilities can be enhanced by economic growth, since growth in income can improve capabilities which can lead to greater earning power and removal of income poverty (Sen, 1999; cited in Mulugeta and Amanuel, 2000). Many poorer households depend considerably on the labor of their children especially girls in order to supplement household income either directly on the farm or in the market place or indirectly by undertaking household tasks (Kasente, 2000; cited in Mohammad *et al*., 2006). Poverty and unwillingness to bear the educational cost of books, uniforms and other expenses have contributed to lower participation of girls in education (Genet, 1994; cited in MOE, 2000). Hence, educational costs such as fees, uniforms, and books are also often deterring parents from educating girls.

In the same way, one of the disadvantages the Ethiopian girls face in education is due to the low income of their families. (Hyde, 1993; cited in Tassew, *et al*, 2006) explained that girls who come from economically advantaged families are more likely to enter and remain in schools than are girls from disadvantaged families.

Studies in Africa (Canajarajah and Nielsen, 1999; cited by Tassew, *et al*, 2006) show controversial or mixed effects of farm ownership on the probability of child schooling. For example, a higher endowment of small livestock showed negative effects on enrolment in Botswana while on other similar studies found higher probability of school enrolment.

Livestock ownership (TLU) -- Ownership of productive assets like livestock can affect child schooling in various ways. It can have a negative effect on schooling because larger asset holdings – especially livestock for which children are traditionally responsible – may compel households to forgo the income that child work brings.

The "opportunity cost effect" of family assets, which has a negative effect on children enrolment and dropout situation because the productivity of child labour increases due to greater assets.

Arable farm size-The size of a household's land holdings had a positive and significant impact on children working or combining work and school relative to schooling only. Children of households with greater land size (because of opportunity cost effects) were more likely to spend their time working or combining school and work than attending school only (Tassew *et al.*, 2006).

Occupation of the household- The chances of school enrolment were greater for children from households headed by civil servants and, particularly in the case of girls, it increased in accordance with the status of parental occupations. The relationship between the education and parental occupation appears mixed (Tassew *et al*, 2006).

The impact of higher income on school enrolment was greater for farming than non-farm households and, and for each household type, and the impact of higher income was greater for

the enrolment of male compared to female children (Burney, 1995; cited in Tassew *et al*, 2006). However, children of land-rich families are more likely to be in work instead of attending school compared to children of land poor households, indicating that asset ownership and child labour could be negatively correlated.

Perceived schooling costs- Costs of schooling are among the factors that influence parental decisions about child education (World Bank, 2004). Overall African case studies indicate that the probability of enrolment in primary school was less influenced by direct costs than opportunity costs (e.g. child work- related), although the results showed mixed patterns. In cases where direct costs matter, the impact was found to be more significant for poor households than rich households as poorer families tend to have more children and limited budgets. Some studies also found that the direct costs of schooling were higher for girls than for boys, which may reduce the chance of schooling for girls (World Bank, 2004).

2.7.3. School related factors

School factors were cited in many studies as constituting more important determinants of educational enrolment. The most commonly studied school features include the availability and quality of school facilities, proximity and costs, and have differential effects on the enrolment of children by gender (World Bank, 2004).

Expansion of primary schools through public expenditure or private investment reduces one of the supply- side constraints on household enrolment decisions (World Bank, 2004). According to this study, improving access or the level of provision in general, significantly influences the level of enrolment, although its impact may be variable by level of schooling and region.

School distance: Accessibility to schools is a problem in many rural communities in Africa. Proximity to schools is very important for girls because parents are often afraid to allow their daughters to walk long distances to attend school after the age of puberty (Okojie, 2001). The demand for school is also likely to be influenced by the distance between the household and the school as those living farther away from primary school may face higher opportunity (time) and direct (transport) costs (Tassew *et al*, 2006).

If a school is close to a child's home, the likelihood of enrolment is high for both girls and boys. With an increase in physical distance, girls' participation in schooling is lower due to logistical problems and associated safety risks (Tilak, 1998; cited in Tassew, *et al*, 2006). This suggests that school access is not only important in terms of reducing the transport costs to households, but also in terms of alleviating parental fears about their daughters' safety and a potential loss of family honour. The positive association between child schooling and school availability was particularly strong in the case of girls, as parents had previously been reluctant to send their daughters to distant schools (particularly in rural areas) because of safety concerns.

Low proportion of female teachers - Another significant school related factor is staffing, which is male dominated. Studies have shown that staffing is a critical factor not only in terms of numbers but also in terms of qualification, gender balance and commitment. The need for more women teachers has been identified by many studies (Muranga and Kelly, 2000; cited in Mohammad *et al*., 2006). These studies argue that staff member females should be allocated for advice and counseling as well as for teaching (Kasente, 2000 cited in Mohammad et al., 2006).

2.7.4 Social and cultural factors

The socio-cultural beliefs and practices are the main factors that influence the gender disparities in education. Several studies indicated that a number of socio-cultural related factors tend to limit the value of female students in education. Psacharopoulos (1985; cited in Mulugeta, 2000) stated that in the Middle East and North Africa, religions or socio-cultural traditions such as early marriages and child bearing explain their low participation in education. Some of them were early marriage, abduction (safety and security), religious beliefs, priority for boys' education, and awareness of parents towards girls' education and attitudes of females themselves toward education.

Therefore, socio-cultural factors influence the education of females in various ways. In some societies, cultural practices require the girls staying out of school temporarily or permanently interfering with education.

Early marriage - Early marriage is another factor reducing female education. In many African countries, the legal minimum age at marriage and the actual age are lower for females than for boys. The early marriage of girls links to poverty as poor households may push daughters to marry for economic reasons (Kasente, 2000; cited in Teshome, 2002). Therefore, probably it acts as a deterrent to female education than male. Many communities, particularly those in the semi arid and arid areas, consider girls as a source of wealth for the families. Many girls perceive marriage as escape routes from family poverty while the common cultural practices of changing bride wealth bring quick and substantial income to her family (Kasente, 2000 cited in Teshome, 2002). Thus majority of societies silently believe that educating a girl is like watering another mans garden (FAWE, 2001). Teshome (2002) in his study indicated that 80% of female students in Amhara region and 51% of female students in Oromia region dropped out of school due to early marriage.

Fear of abduction - Safety and security both within the school and out side is very crucial for female students. However, a majority of girls are not safe when walking long distances to and from school. FAWE (2001) indicated that together with their parents female students fear being raped and abducted. Teshome (2002) shown that risk of abduction was rated as one of the most influential factors for females low participation in Oromia national regional state.

Sexual harassment- Though an in-depth study on harassment has not been done, cases reported to different institutions show that it is a serious problem in school and some cases of rape have been reported (Emebet, 2003). Girls did not view school as a secure and comfortable place to learn and hence participated less in class to avoid unwanted attention from male teachers. Their movement around the school was restricted by fear of being bothered by schoolboys (Leach and Machakanja, 2000; cited in FAWE, 2002).

The role of religion: Religion, Christianity or Islam has an impact on girls' education, because they maintain a patriarchal value system and hold stereotyped views about women. According to (Dolphyne 1991, cited in Mauritius, 2003) only education can foster in women an analytical and a critical mind that would make them question the religious, cultural and physiological bases of their supposed inferiority. It is widely believed that Muslim females are constrained in their access to education than Christian (Okojie, 2001).

Religion is frequently associated with low female participation in schools (Odaga and Henveld, 1995; cited in Mulugeta 1998). As Teshome (2002) indicated, the fear of parents based on the assumption that western education promotes values and behavior for girls that are contrary to cultural norms is of the way in which religion influence females' education.

Parents' low priority for females' education - Many parents, especially illiterate parents and rural communities in general, have low academic expectations for girls' education. Some parents' perceptions of adult roles for girls and their marital and maternal obligations to their families make them believe that girls do not require much formal education as these roles do not require going to school. Odaga and Heneveld (1995; cited in Mulugeta, 1998) indicated that the education investment behavior or decisions of most Africa families is based on gender differentiation, birth order and number of siblings. According to them, parents often consider that boys are a better investment than girls and that they are also better at school. Girls schooling is constrained when the real or perceived rates of returns to female education are limited or less than for males (Oxaal, 1997; cited in Tassew *et al*, 2006).

On the other hand, low self esteem by females because of internalization of cultural attitudes which regard women as the inferior sex affect girls' beliefs in themselves and their behavior. Female students have internalized self- images of academic inferiority conveyed by parents and teachers that finally leads to dropouts (Anderson, 1994; cited in Mauritius, 2003).

Lack of female role models - There were few females role model for female students who continued tertiary level education, particularly in the rural areas. For example one of Ugandan studies found that role models for females who went to university were professionalism,

popularity, and commitment to their work (Okojie, 2001). On the other hand, although the promotion of female teachers has been recommended as a strategy to create role models for girls as well as for safety, studies indicate on difference in low expectations of female students between male and female teachers (Odaga and Haneveld, 1995; cited in Mulugeta, 1998).
However, studies from Uganda again show that the largest gender gaps in enrollment exist in poorer regions where the percentage of female teachers is low (World Bank, 1992). In addition, Ankerbo and Hoyda (2003, cited in Tassew *et al*., 2006) stated that low expectations of parents of female students themselves, and the society were main reasons why gender stereotypes are being reproduced in the education system.

Social participation – This refers membership and leadership in community organization that assumes that farmers who have some position in PA and different cooperatives are more likely to be aware of new practices as they are easily exposed to information (Van den Ban and Hawkins, 1996). And hence, these people most likely send their children to school and tend to maintain them till the last grade of primary schooling.

Cosmopoliteness - It refers to households' access and exposure to the nearby towns or other villages. It tells the degree to which the family has extra- local or societal interests.

2.8 Empirical Studies Related to Primary education

As stated in the policy paper of the World Bank (1990), improving the existing status of primary education in developing countries required unreserved efforts in enhancing the learning environment, improving the preparation and motivation of teachers and strengthening educational management.

Though recent trends in Ethiopia are encouraging, the percentage of school age children who participate in primary education is still very low. The ESAA education statistics revealed that Gross Primary Enrolment was 79.8% in 2004/05, this enrolment rate is less than sufficient for the country's requirements and development prospects (ESAA, 2005).

The problem in Ethiopia is not only getting children into school, but also keeping them there. The educational wastage, particularly in the form of dropping out has been a challenge to the sector (Mulugeta and Ammanuel, 2000). Dropout rate is usually considered as an important indicator of the inefficiency of the school system. Though the dropout rate is the highest in the primary level, such a large dropout rate would mean a large amount of human and economic resources' wastage.

As cogently put by Seyoum (1996, cited in Mulugeta and Ammanuel, 2000), the low participation rate of girls coupled with the high dropout rate would certainly be a missing piece in the development puzzle of Ethiopia. At this juncture, it would be worth nothing the main characteristics of the studies made regarding school dropping out in Ethiopia in the past several years.

A large number of the dropouts themselves and the teachers of Amhara region indicated that the most important obstacles to continue schooling are family poverty and the need of child labour by the parents (Habtamu, 2002).

In Ethiopia, as it was studied by different researchers, the major factors responsible for the low participation of female students were categorized as family related and school related factors. Economic constraints, marriage by abduction, load of household chores, school distance, sexual harassment and pregnancy are the main factors (EWLA, 2003).

Parental education- Overall results indicate that the majority of parents whose daughters dropped out of schools have no education. Children with better-educated fathers were less likely to be involved in work. These results imply that children of educated parents are more likely to attend school (Tassew *et al*., 2006).

Parental education also promotes children's enrollment, more for girls than boys, but the maternal effects are stronger (UNICEF, 1992).

Maternal education - Studies by Odaga and Henevel, 1995; cited in Mulugeta, 1998 found out that maternal education is the main influence on children's schooling, whether for boys or

girls. The effect on girls is roughly twice as great whether for girl's actual enrolment or for the probability that the girls will continue to the next grade.

Parents' attitude towards daughters' education - Results clearly portrays that the attitude of parents towards their daughters' education is positive. In fact the willingness of parents to send their daughters to school in the first place can by itself be a clear indicator of their positive attitudes. Moreover, overall results both in the Oromia and the Amhara region show that quite a majority of parents support their daughters' education (Teklehaymanot, 1999; cited in Mulugeta and Amanuel, 2000).

Direct costs of schooling- The ability of parents to cover school expenditure on items such as uniforms, exercise book and others has been found to be a very important factor that affects access to schooling of girls. When resources are scarce, parents prefer to invest on the education of sons rather than daughters (Emebet 2004). From the results of the study in Amhara and Oromia regions by Teshome (2002) direct schooling costs have been found to be the major reason parents offer for not educating children or for removing them from the school. Apart from tuition, such costs include fees for registration and admission and book rental.

Occupation of parents- As stated by Mulugeta (1999) Occupation of parents also has a significant influence on the probability of school enrolment. Farmers (or in a general sense self-employed parents) are found to be less likely to send their children to school. The reason could be the higher need for boys'/girls' labour by farmers than government employees, who are less likely to need their children's time but more likely to appreciate the returns from education. But results of Tassew *et al* (2006) stated that the income effect (income contribution of assets) tends to increase child enrolment and reduce child work.

Child labour- Research findings in different countries of Africa indicated that girls are the major sources of labor in the household to fetch water, fetch fuel in the form of firewood, dried animal dung or crop residues, help in preparing food in grinding, husking and pounding of grains; looking after younger children; Washing and participate in the work force in

weeding; hoeing, with handcrafts production and with trade from an early age some times as young as six Befekadu, 1998; cited in Herko, 2005. Tassew *et al* (2006) reported in their research findings in Ethiopia that the presence of elder children reduced the likelihood that boys and girls would have to combine work and school.

Parents' livestock holding- According to Teshome (2002) in both Amhara and Oromia regions overall 60% of the families of drop outs own less than 3 cattle, again indicating that they belong to the poorer section of their communities. Parents in rural areas with low household income and socioeconomic background face problems in sending their children to schools. Studies indicate that, in most developing countries, children of poor families have poor less chance to enroll in school and more probability to dropout than children of well to do families (Befekadu, 1998; cited in Herko, 2005).

Distance of schools- has been another deterrent for children's education in many countries in Africa. Odaga and Heneveld (1995; cited in Mulugeta and Amanuel, 2000) refer to a large number of studies in the region where it has been reported that the long distances girls (particularly rural girls) travel to school has two major problems: one relates to the length of time and energy children have to expend to cover the distance, the other relates to the concern and apprehension parents have for the sexual safety of their daughters.

Personal safety of girls - Concerns are further exacerbated when girls have traveled a long distance to school. For example in Ghana girls enrollment at primary level is deterred by lack of physical safety while traveling long distance to school (Oxaal, 1997; cited in Mauritius, 2003).

Early marriage- A study by Mulugeta and Ammanuel (2000) also indicated that, parents support early marriage due to fear of unwanted pregnancy and abduction which seem to have a great negative value. Therefore, it seems that early marriage not only hinders girls from going to school, but it also appears to be a reason for dropout from school. Studies in many developing countries indicated that, the number of girls attending school abruptly drops when they reach the ages 15 to 19. One major reason for this phenomenon is early marriage

(Emebet, 2003). A study by Mulugeta and Amanuel (2000) also indicated that, parents support early marriage due to fear of unwanted pregnancy and abduction.

Sexual harassment- Teshome (2002) pointed out that sexual harassment as one of the biggest threats to the continuation of schooling by female students.

Violence against women such as rape, domestic violence, abduction for marriage, sexual harassment, female genital mutilation, early marriage are widespread in the country and are being widely recognized as a violation of women's right apart from the physical and psychological consequence it has on the life of a woman. Women in Ethiopia, as anywhere else are also victims of various violence and harmful traditional practices simply because of their gender. Patriarchal domination, cultural and traditional practices, economic deprivation etc are among the reasons for violence against women in Ethiopia. Cognizant to this fact, a lot of awareness creation has been undertaken by various stakeholders including the WAO/PMO, Sectoral women's affairs machineries, and civil society organizations (WAO, 2004).

Presence of role models- There was few females role model for female students who continued tertiary level education, particularly in the rural areas. On the other hand, although the promotion of female teachers has been recommended as a strategy to create role models for girls as well as for safety, studies indicate on difference in low expectations of female students between male and female teachers (Odaga & Haneveld, 1995; cited in Mulugeta and Amanuel, 2000). However, studies from Uganda again show that the largest gender gaps in enrollment exist in poorer regions where the percentage of female teachers is low (World Bank, 1992). According to Teshome, 2002 it appears that 62% of females in the Amhara Region know some girls who succeeded in their education, while this is true only among 22% of the respondents in Oromia.

Gender disparity in schooling- Several studies in Ethiopia also indicated that same as other developing countries, in all educational levels, girls' enrollment and participation is usually below that of boys. Parents in many African countries still prefer to have girls work at home

and assist the mothers with domestic chores which leave little time for school work and spend a lot of time assisting their parents to carry out domestic chores (FAWE, 2001).

According to Ankerbo and Hoyda (2003 Tassew *et al*., 2006), the first constraint begins even before enrollment for girls in primary school. Parents with low income have to make priory to send boys to school because of the they are assumed as the future providers of economic security for their parents, while girls' future roles is to be married and go away. Secondly, female students poor enrollment and participation in school could be related to their life styles too, that is most of them do house chores such as; cooking, taking care of younger brothers and sisters, generally helping their over burdened mothers.

Studies indicated that girls' education has always lagged behind that of boys in all developing countries. According to the 2003/04 educations for all global monitoring report, despite progress in girls' education in 1990's girls continue to face sharp discrimination in access to schooling through out the developing world (UNESCO, 2004).

The Gender Parity Index at the national level in 2003/04 is 0.8 indicating that girls' participation is by 20% lower than boys. This is true for all regions except for Addis Ababa and Tigray whose GPI is close to one. Currently (2003/04) 40.9% of the school-age girls are out of school (ESAA, 2005).

According to Ayalew, 2005; cited in Herko, 2005 the percentage of female enrolment is slowly but steadily increasing. For example the rate of enrollment in 1999/00 was 39.2%, 2000/01 40.3%, 2001/02 40.9, 2002/03 41% and 2003/04 42.6%. That means it has not reached parity level. Therefore, as indicated in different sources, even though the overall access to primary education in Ethiopia is increasing much remain to be done concerning the gender gap.

Although there have been some positive trends in recent years. Ethiopia is one of the countries with the lowest girls' enrolment rates compared to other developing countries (Befekadu, *et al*, 2001; cited in MOE, 2004). For instance, in primary education of Ethiopia, the gender gap

persist at the level of 20% in gross enrollment ratio (GER) at the national level in the years 2001 to 2003 even if the target of ESPD II is to reduce the gender gap to 16% by 2005 (Lasonen, 2005).

2.9 Conceptual and Analytical framework

Based on the literature review, gender disparity will be studied by adopting a multiple perspective, which implies investigating the economic, cultural and parental factors that influence the educational outcomes in terms of gender disparity between girls and boys in Ethiopia (Teshome, 2002).

The conceptual framework recognizes that factors that result in gender disparity also constrain female education as a whole. For instance, a low level socioeconomic development creates a fertile background for gender disparity in education (Teshome, 2002). The main concern here is to understand how gender disparity occurs and why it exists.

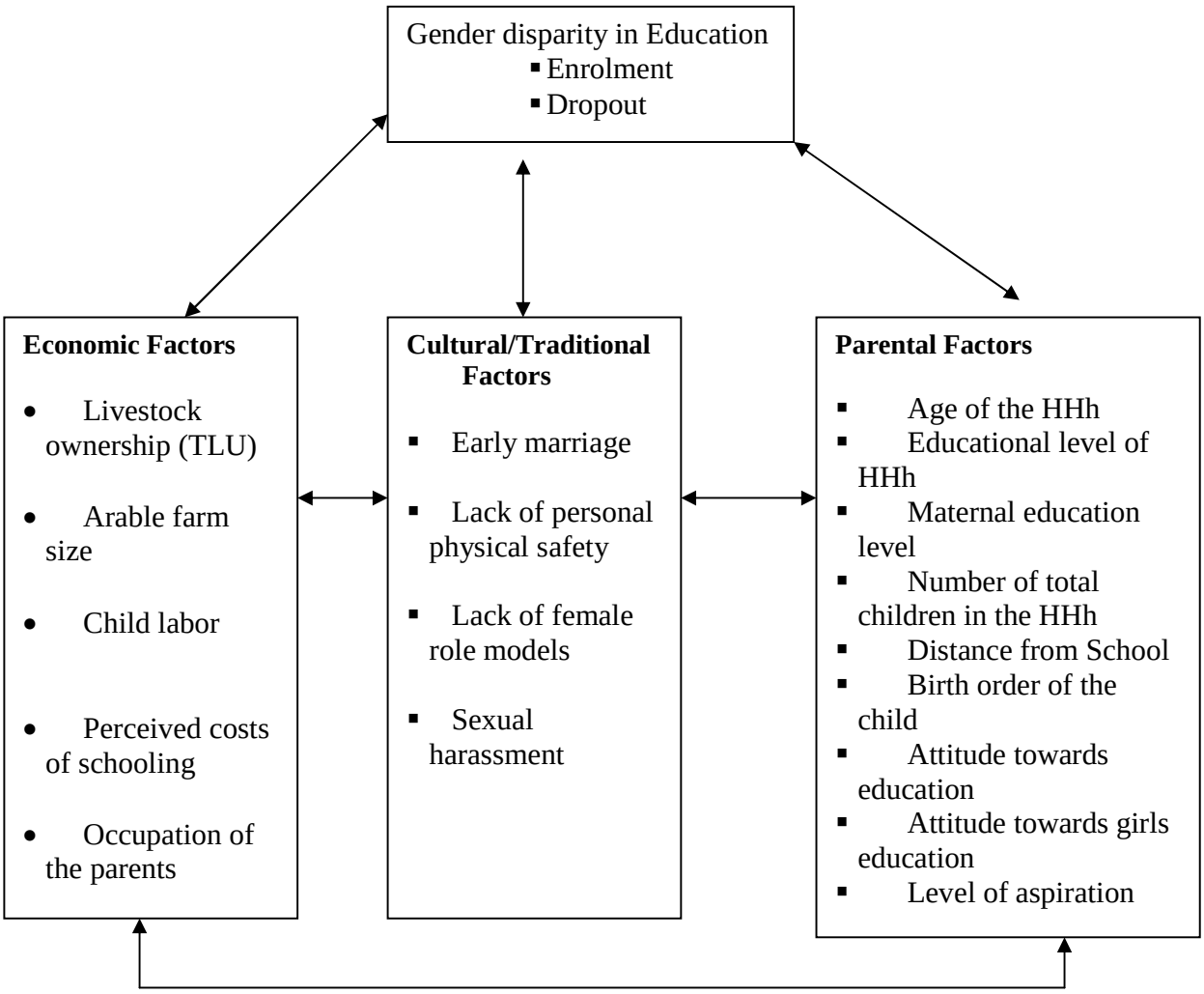

Figure 1. The conceptual and analytical framework

(Adapted from Teshome (2002) and Teshome (2003)).

3. RESEACH METHODOLOGY

3.1 Description of the study area

Dehana Woreda is located in Amhara National Regional State Waghimra Zone about 801 km north of Addis Ababa. It is also about 536 and 80 km far from Bahir Dar and Sekota respectively. It has 31 Peasant Associations and it shares border with North Gondar to the west, Sekota woreda to the east, Ziquala woreda to the north and North Wollo zone to the south.

Regarding the infrastructure of the woreda, there is all weather gravel road to the woreda town. There are about 7 peasant associations with only dry weather road, yet about 15 peasant associations are not accessible/hard to reach. The woreda town has only 1 V-sat (satellite) telephone service. Besides, it has 6 hours daily electric power service originated from diesel generator.

The total population of the woreda is 197,930 (102,635 male 95,295 female) Out of the total population, 98.7 % is living in the rural areas and only 1.3% is urban dwellers.

There are 31 PAs with a total of 38544 households of which 9383 are female headed households. 99 percent of the population of the woreda is Amhara ethnic group whereas only 1 percent is Agew. Almost all population of the woreda is follower of the Ethiopian Orthodox Christianity.

According to the woreda Women &Youth and Child Office, unemployment, absence of youth center, vocational training center and art center are some of the major socio-economic and recreational challenges of the youth.

There are 9 satellites schools (under tree shade) and 40 regular primary schools, 1 secondary school (9^{th} to 10^{th} grade) and preparatory (11th grade). Early marriage, domestic chores, lack of school fees, religious and cultural impediments that affect girls' assertiveness and school

distance are some of the major socio-economic and cultural factors that undermine the enrollment and participation of girls' education.

3.1.2 Socio-economic characteristics of the wereda

From the total coverage of the wereda (97,672 ha), 40,296 ha is allocated for farming, 10,364 ha for grazing land and 14,645ha covered with different types of forest. With regard to the natural resource conservation, the wereda has 14,406 ha of plantation forests which are planted by farmers. The wereda has 13,199 ha of natural forests some of which are protected by the government.

The major crops grown in the wereda are barley, wheat, chickpea and pea grown in the Weyna dega agro climatic zones. Teff, wheat, maize, sorghum and bean are major crops grown in weyna dega agroclimatic zones of the wereda. The only crop that dominantly cultivated in the Weyna dega agro climatic zone of the wereda is sorghum.

Livestock population of the wereda.

Table 1 Indicates the livestock population of the Wereda by number and type.

Type	Ox	Cow	Heifer	Bull	Calf	Sheep	Goat	Donkey	Horse	Mule	Chicken
Number	277	570	500	963	164	1396	48124	6632	793	695	101969

Source: Dehana woreda RDA office Documents

Population

Currently, the total population of the wereda is 197,930 persons composed of 102,635 males and 95,295 females. Out of the total population, 98.7 % is living in the rural areas and only 1.3% is urban dwellers.

There are 31 PAs with a total of 38,544 households of which 9,383 are female headed households. The majority (almost all) of the population in the study area belongs to the Amhara ethnic group and the dominant religion is Orthodox Christian.

3.2. Research Design

With respect to the objectives and nature of the research questions of the study, combination of suitable qualitative and quantitative data collection and analytical techniques were employed. Hence, in this section, procedures of sample size determination, procedures of data collection and method of data analysis for this study are discussed. Theoretical econometric models, which are used for the study, are also discussed in detail.

3.2.1 Sampling technique and procedure

Dehana Wereda is purposively selected for the study. In the wereda there are 42 schools serving primary school aged children. Out of these 42 schools only 17 are having both first and second cycle (1- 8) programs. In line with this, the PAs where the schools located namely; Amedwork, Bewoll were selected randomly where as Chilla and Kozeba were selected purposively to get the sample units. Among the selected PAs, two namely Chilla and Kozeba were far away from town and the other two Amedwork and Bewoll were somewhat closer to town. In this study, the households and selected children in the household were units of observation and children were units of analysis. Thus units of observation and analysis were household heads and children living in the PA where the school is constructed, with primary school aged children of enrolled, dropout and never enrolled groups. Schools in the wereda have lists of primary school aged children who are currently enrolled and those who have dropped out of school. Lists of school aged children who never enrolled were collected from officials of PAs and Gotes (development sites).

Finally, in consultation with PAs leaders those households who currently are not in the area were excluded from the new list and who were forgotten were included in the list. From

these lists of children a fresh household list was prepared in cooperation with school officials and PAs' representatives. After the new list was made ready and from secondary data of schools, the total number of primary school aged children of enrolled, dropped out and never enrolled, were obtained. Then, by the technique of probability proportional to size the sampling size of the enrolled, dropped out and never enrolled children and their household heads were decided. Hence from a total sample size of 150 household heads, 82 were from enrolled, 47 from dropped out and 21 from never enrolled groups were chosen. These were not three exclusive categories, since the households included in the sample have different categories of children. It means, the 82 households had at least one enrolled child, 47 had at least one dropout child and 21 had at least one never enrolled child. Though the study was focusing only on enrolled and dropouts, the inclusion of households having at least one never enrolled child was with the purpose of exploring its causal factors with household decision making.

Since the sex of the household heads matters a lot on decision of enrolling or dropping out their children and not to miss the opportunity of finding out the maternal impacts on the education of boys and daughters, purposive inclusion of female headed households (34) was done after selection of PAs.

3.2.2 Sample Size

The sample size is often restricted by the available fund, time and other related reasons. It is often not feasible to study the entire population because of the reasons like the physical impossibility of checking all items in the population, the cost of studying all the items in the population, the adequacy of sample results and contacting the whole population would be time consuming. Therefore, considering financial constraints, time shortage, lack of transportation and other infrastructure facilities for a student researcher of this kind, 150 households and 150 school aged children from enrolled, dropped out and never enrolled groups were included in the study.

The data in Table Table 2 indicates the distribution of the sampled household heads respondents in each selected PA and sex composition of the selected respondents, following PPS.

Table 2 Distribution of sampled respondents by PA and sex

Sl. No.	Kebele administration	Total Population	Sex of household head				Total	%
			Male	%	Female	%		
1	Amdework	6225	31	26.7	10	29.4	41	27.4
2	Bewoll	5828	26	22.4	9	26.5	35	23.3
3	Chilla	6475	33	28.5	5	14.7	38	25.3
4	Kozba	5520	26	22.4	10	29.4	36	24
	Total (N)	24048	116	100	34	100	150	100

Source: Own survey result, 2014

As shown in Table 2, 22.7% of the household head respondents were female headed and the distribution of the samples in PAs ranges from 23% to 27% of the total sample size.

3.3 Data and data sources

Both primary and secondary data sources were used for this study. The data collected by both primary and secondary methods were on the situation of both enrolment and dropouts over three years period. The situation of never enrolled children was also considered. Education level of the household heads, sex, age, family size, number of school aged children in the household, birth order of the child, landholding size, livestock number, involvement of the household head on off-farm and non-farm employments, situation of inward remittance, costs of schooling as perceived by the household head, labour sources at peak seasons, cultural and household factors that reduce enrolment of children, cultural and household factors that aggravate dropout situation, lack of physical safety, attitudes of household heads towards education and female education, gender roles perception of the household head, presence of female role models in the area, level of aspiration of the household head, social participation

of the household head, cosmopoliteness of the household head, distance of the school from their residence and other related data were collected.

Questionnaires were used to gather data from school officials and school teachers, while interview schedule was used for survey the household head and school aged children in the sampled households.

The respondents of survey were schoolteachers, school officials, household heads and school aged children in sampled households. Focused group discussions were conducted with community key informants in the selected PAs, girls and boys in school both coming from nearby and very far areas.

Secondary data were gathered from annual reports, unpublished documents in schools, wereda and zonal offices of Education and Rural Development, different Journals, Internet and statistical publications. Primary data were collected through household head interviews, school aged children interviews, key informant's discussion and focused group discussion with children as well as through personal observations.

3.4 Data gathering methods

The main data gathering methods for the study were questionnaire and structured interview. For this purpose, interview schedule was designed and additional amendments were incorporated in consultation with the respective offices of the wereda after being translated into Amharic. To facilitate the data collection process together with the researcher, eight enumerators (two from each PA) were recruited based on their education level (having completed at least secondary education) and their familiarity of culture and the people in consultation with the PA administration officials.

Training was offered to enumerators about the meaning of data and importance of reliable data for development. In addition to this, they were trained about the way of approaching the respondents, way of conducting the interview schedule, when and where to conduct the interview, how to record their responses and how to share each day's progress with the researcher. The interview schedule was thoroughly discussed statement by statement so that the enumerators could understand the desired meaning of the questions.

To facilitate the data collection process the interview schedule was pre-tested and re-designed by administrating on eight non sample respondents of matching characteristics in one of the selected PA. On the basis of the pre-test, all the necessary modifications were made on the interview schedule before its execution. Finally, the researcher and the enumerators in each sampled PA undertook the data collection process. Every problem encountered, while conducting the interview schedule, was solved on the spot by the researcher in cooperation with the PA officials and the enumerators themselves.

With regard to the questionnaire it was prepared for school teachers, five male and five female teachers from each selected schools, and provided to be filled up by themselves. Those schoolteachers were selected randomly. Questionnaire prepared for school officials, one for one school, were filled up by school directors.

Primary data were also collected from key informants' discussion, focused group discussion with both enrolled children from nearby areas and with those children coming from very far (interior) kebeles and also by personal observation and discussion with concerned experts.

Concerning secondary data, they were collected from the selected four primary schools, Dehana Wereda Office of Education and Wag Himera Zone Office of Education through discussion with officials and experts and by referring their annual reports and other related documents. Hence three year's data (From 2003/04 to 2005/06) were collected from school officials and different documents. Socio-economic related data were collected from annual reports and unpublished documents in Dehana Wereda office of Agriculture and Rural Development. Additional information about education, enrolment, dropout and other related

issues were gathered from Journals, Internet and related publications. Various statistics and econometric books and other related publications were reviewed for analysis purposes.

3.5 Method of data analysis

The qualitative and quantitative data obtained through data collection methods were analyzed using appropriate methods for analysis. Qualitative data were analyzed through interpretation and conceptual generalization. For quantitative data, both descriptive statistics and econometric model were employed to analyze the relationship between the dependent and explanatory variables. While household heads and school aged children characteristics were analyzed using descriptive statistics and econometric models were used to study the relationship between variables empirically. Likert scale was used to measure variables related to attitude, social participation, level of aspiration and cosmopoliteness and finally treated by descriptive and regression model. Descriptive statistics, frequencies, cross tabulation, Pearson correlation, t-test and binary logistic regression model were statistical tools and model used to analyze data. Both household heads and school aged children in selected households were used as a unit of analysis in this study.

Binary logistic regression model

In enrolment studies, responses to a question such as whether household heads enroll their child to primary schools could be 'yes' or 'no', a typical case of dichotomous variable. Similarly in dropout studies responses to a question such as whether household heads drop their child out of primary schools could be 'yes' or 'no', a typical case of dichotomous variable. The choice of this model revolves around practical concerns such as the availability and flexibility of computer program, experience and other facilities. In fact, it represents a close approximation to the cumulative normal distribution. Hosmer and Lemshew (1989), pointed out that a logistic regression has got advantage over others in the analysis of dichotomous outcome variables. There are two primary reasons for choosing the logistic distribution. These are 1) from a mechanical point of view, it is an extremely flexible and easily used function, and 2) it lends itself to a meaningful interpretation. The logit model is simpler in estimation

than the probit model (Pindyck and Rubinfeld, 1981). Therefore, in this study a binary logistic regression model is used to analyzing the factors influencing the decision of household heads to enroll children to school and drop them out of their primary schools in Dehana Wereda.

Following Hosmer and Lemshew (1989), the logistic distribution function for analyzing enrolment and dropout situations can be defined as:

$$P_i = \frac{1}{1+e^{-Zi}} \quad \text{..... (1)}$$

Where P_i is the probability of being willing to enroll and not to dropout for the i^{th} household head and Z_i is a function of ***m*** explanatory variables (X_i), and expressed as:

$$Z_i = \beta_o + \beta_1 X_1 + \beta_2 X_2 + \text{-----} + \beta_m X_m \text{ .....} \quad \text{(2)}$$

Where β_o is the intercept and β_i are the slope parameters in the model. The slope tells how the log-odds in favor of being willing to enroll and not to drop out children in primary schooling decisions change as independent variables change.

Since the conditional distribution of the outcome variable follows a binomial distribution with a probability given by the conditional mean P_i, interpretation of the coefficient will be understandable if the logistic model can be rewritten in terms of the odds and log of the odds, (Gujarati, 1995). The odds to be used can be defined as the ratio of the probability that a household head will decide (P_i) to the probability that he/she will not ($1-P_i$).
But

$$(1-p_i) = \frac{1}{1+e^{z(i)}} \quad \text{..... (3)}$$

Therefore, $$\left(\frac{p_i}{1-p_i}\right) = \frac{1+e^{Z(i)}}{1+e^{-Z(i)}} = e^{Z(i)} \quad \text{..... (4)}$$

And

$$\frac{p_{(i)}}{1-p_{(i)}} = \frac{1+e^{Z(i)}}{1+e^{-Z(i)}} = e^{\beta_{\circ o}} + \sum_{i-1}^{m} \beta_i \mathrm{Y}_i \quad \text{……..…….…..... (5)}$$

Taking the natural logarithms of the odds ratio of equation (5) will result in what is known as the logit model as indicated below.

$$\ln \left(\frac{P_{(i)}}{1-P_{(i)}} \right) = In\left[e^{\beta_{\circ}} + \sum_{i=1}^{m} \beta_i \chi_i \right] = \mathrm{Z}_{(i)} \quad \text{…….…... (6)}$$

If the disturbance term U_i is taken in to account the logit model becomes:

$$\mathrm{Z}_{(i)} = \beta_{\circ} + \sum \beta_i \chi_i + \bigcup_i \quad \text{……..…… (7)}$$

3.6 Definition of Variables and hypotheses

Household heads' decisions to enroll or not to enroll and to drop or not to drop children from their primary schooling at any time are influenced by the combined effect of parental, economic, cultural and/or traditional and school factors, which are related to their objectives and constraints. Once the analytical procedures of the study are known, identifying potential explanatory variables and representing them in symbol become necessary. In the following section, the variables to be used in the logit model and the associated working hypotheses are presented.

3.6.1. Dependent variables for enrolment and dropout of primary schools

Both the dependent variables of the model (binary logistic regression analysis) have dichotomous nature representing the preferred status of the household heads to enroll and dropout school aged children to/from primary schools. In the Logit model, a household head that sent his primary school aged children to school is considered to be “an enrolled” and household head that pulled out at least one of his school aged children from school is considered to be “a dropout”.

The variable enrolment takes the value 1 if the household heads enroll their child, or 0 otherwise. On the other hand, the variable dropout takes the value 1 if the household heads not dropped out their child from school, or 0 otherwise.

3.6.2.The independent variables

It is hypothesized that the decision to enroll and dropout children influenced by a set of independent variables. The independent variables of enrolment and dropout study are those, which are expected (hypothesized) to have association with enrolment and dropout of school aged children to/from primary schools.

According to Mulugeta (1998) schooling determinants, especially in developing countries, are of similar nature. Hence this study uses those variables that are important in light of the reviewed literature, discussion with experts and the actual situation of educational disparities in Ethiopia.

Based on theoretical background and empirical results of different studies on enrolment and dropout situations, and some other related studies at secondary and tertiary level education carried out elsewhere as well as considering the information from the informal survey, the following variables are hypothesized to influence the decision of enrolling and dropping out of children to/from primary schools.

Definition and operationalization of dependent and explanatory variables to explain decision of household heads on enrolment and dropout situation of children with variables code is presented as follows:

3.6.2.1. Parental Factors

1 Age of household head (Agehhh) – it is a continuous variable refers to the chronological age of the household head. Then it is assumed that elder household heads might not send their children to school in order to get their help in farming operation and get more relief from hard physical work at older age. In addition to this, elder household heads dropout children from school for their labour help. On the other hand, relatively speaking younger household heads might enroll their children to school and persist them in school till the last grade since they are the most working group of the society and do not dropout children for their labour support. Hence a negative relationship of age with dependent variables is expected in this study.

2 Number of children in the household (Ntchdhhh) – This is a continuous variable that indicates the actual number of children for the parents in the household. Children are more likely to enroll in school in families with smaller number of children where household heads

could afford the different schooling costs. On top of this, these families do not drop their children out of school because economic reasons. On the other hand, children from households with larger number of children are less likely to enroll to school and mostly dropout of their schooling. Hence, it is assumed to have a negative relationship with the dependent variables enrolment and dropout.

3 Educational level of the household head (Edulhhh) - This indicates the status of literacy and formal education of the household heads and it is measured as a categorical variable in grades or number of years in school. Since educated parents are likely to reward education, it was expected that children who are coming from educated household heads background enroll and continue. Hence, a positive relationship is expected with the dependent variables.

4 Occupation of the household heads (Occofhhh) - This is a dummy independent variable, indicating the occupation of household heads. A value 0 represents if the household head do not involve in income generating activities other than farming or 1, if involves at least in one activity other than farming. Those household heads that involve in activities other than farming might more likely enroll and continue to educate the children. Hence, a positive relation is expected with the dependent variables.

5 Distance from school (Esdsitrq) – School distance is one of the determining factors in enrolment and dropout situation of children and more affects girls. It is a continuous variable measured in time taken by children to reach school. When schools have more distance from home, household heads tend to worry about the safety of their daughters and often are unwilling to let them go to school. Hence, it is expected school distance has a negative relation with enrolment and dropout situations.

6 Level of aspiration (Lvaspced) – This is a continuous variable, refers to the household heads aspiration from children's education and is measured by the score of statements referring aspiration. Hence, household heads who have better aspiration from children's

education will send them to school and let them continue till the last grade in primary schooling.

7 Attitude towards education (Hhhatted) – is a continuous variable that refers to the willingness and unwillingness of household heads in enrolling children to school and helping them till the last grade of primary schooling. It is measured by Likert type scale and the score of positive and negative statements referring to the attitude of household heads to children education were summed.

8 Attitude towards female (Hhhatfed) – is a continuous variable that refers household heads willingness and unwillingness to females' education. It is measured by Likert type scale and the score of positive and negative statements referring to the attitude of household heads to female children education. Household heads with better attitude towards female education are expected more likely to enroll children to school and less likely to drop their female children from their schooling. Household heads with low level of attitude towards female education might be more likely to drop female children from their schooling and engage them to be prepared for early marriage.

9 Birth order of the child (Birtofch) – is a dummy independent variable which takes 0 for younger and 1, if elder. It refers the order of birth of the child in the family. Elder children may share the burden of agricultural activities and household chores and less likely to enroll and more likely to dropout of schools. On the other hand, younger brothers and sisters are more likely to enroll and less likely to dropout since elder ones share the burden of their parents. Hence, this variable is expected to have a negative relation with the enrolment and dropout of elder children, and the reverse holds true for the younger children.

10 Social participation (Soclprtn) - This variable refers to whether the respondent has assumed any type of administrative responsibility in his PA during the time of the survey. Participating in formal and informal organizations within and outside the village as member and leadership facilitates willingness to enroll children to school and not to discontinue their

primary schooling. It is a continuous variable measured by statements and expected to have a positive relation with the dependent variables.

11 Cosmopoliteness (Cosmpltn) - It is a continuous variable that refers to the households' access to the nearby towns and measured by statements related to cosmopoliteness of the household heads. Household heads that usually visit towns are assumed to come across with information, see children going to school and look rewards of education. Hence, it might affect children's enrolment and continuance positively.

3.6.2.2. Culture related variables

12 Early marriage (Erlymrgr) – This discrete variable that assumes 1= for low, 2= for average and 3, if high and measured by the ratings given by household heads. Household heads who give value to early marriage as a good practice less likely enroll and more likely drop daughters from their school before completion. Hence, it is assumed to have a negative relation with enrolment and dropout situations of daughters.

13 Lack of personal physical safety (Lakprsft) – It is a dummy variable that refers to household heads fears for the security of girls where such illegal actions as abduction, rape, *etc*. happen while going to school which reduces girls' enrolment. Hence, it is expected to have a negative relationship with dependent variables.

14 Lack of female role models (Prcefmen) - It is a dummy variable that refers to the presence or absence of female employees in rural areas. Female teachers are often the only women in positions of authority in rural areas who are able to act as role models. Their presence is likely to encourage household heads to send their children to school, both because they see opportunities for their daughters outside the household. Hence, the variable is assumed to have a positive relation with the dependent variables.

15 Sexual harassment (Harsmtr) – It is a discrete variable that takes 1= for low, 2= for average and 3, if high. This refers to the household heads rating of the presence of fears for harassment. Household heads who have higher degree of fear that their daughters might be harassed along their way to school or around school are less likely to enroll daughters and more likely to withdraw daughters from school and keep them at home to share the household chores and finally engage in early marriage. Hence, this variable is expected to have a negative relation with the dependent variables.

3.6.2.3 Economic factors

16 Livestock ownership (TLU) (SzlvTLU) – It is a continuous variable that refers to the household heads holdings of livestock measured in terms of Tropical Livestock Unit (TLU). Household heads with large number of livestock unit (TLU) can obtain more income from the sales of animal and their products. This income, in turn, helps household heads to cover all school related and living costs that children might fully engage themselves in schooling than not enroll in and dropout to share the burden of their parents. Therefore, livestock ownership is hypothesized to be positively related to the enrolment and dropout situations of school-aged children.

17 Size of farmland (Szffmlnd) – It is a continuous variable that refers to the total farmland size owned by the household head and measured in terms of hectare (ha). The more arable land means the more income flows to the household and hence increases enrolment of children. Hence, it is expected to have a positive relation with the dependent, enrolment and dropout.

18 Child labor (Altlbupk) – This is a dummy variable that refers the state of children whether they fully engage in work or enroll to school and it is measured by the degree of household heads' use of alternative labour other than family labour. Household heads that use alternative labour other than family labour less likely rely on children's labour and hence more likely enroll and less likely drop children out of school. Thus the variable is assumed to have positive relationship with the dependent variables.

19 Perceived schooling costs (Extgctss) – It is a discrete variable that refers to the perception of household heads about the possible direct costs to educate children. Household heads who feel costs of schooling as an investment may send children to school and keep on educating till the last grades of primary schooling. Hence, the variable is expected to have a negative relationship with the dependent variables.

4. RESULTS AND DISCUSSION

This part is mainly concerned with the description and interpretation on the findings of the investigation. As already noted, a structured interview schedule was administered to 150 sample households in the study area, Dehana wereda. The main aim was investigating enrolment and dropout situation of primary school aged children. In addition to this, the determining factors such as socio-economic, cultural and household factors that could push or pull children from primary education were also explored.

The interview schedule was designed in such a way that it enables to collect data on socio-economic, cultural, household and school related characteristics. Since this study has also included interviews with children from selected households, their results are discussed when necessary with the results of household respondents for the sake of triangulation and also to give emphasis on child based variables separately that could affect enrolment and dropout trends.

4.1 Gender based enrolment and dropout in primary education

4.1.1 Primary school enrolment

The wereda has 42 primary schools at different levels that are under the control of wereda office of education. Among them two schools are with grade one, five schools for grades 1 to 2, two schools for grades 1 to 3, 12 schools for grades 1 to 4, four schools for grades 1 to 5, three schools for grades 1 to 6, six schools for grades 1 to 7, and eight schools are for grades 1 to 8.

With regard to religious education as stated in the background of the study area the dominant religion is orthodox and unorganized Betkihinet education were some household heads prefer to send than the formal schools.

In this study, school officials of the selected schools were provided with questionnaire asking the enrolment and dropout situation of three consecutive years (2010/11 to 2011/13) and the results are summarized in Table 3 below.

Table 3 Number of enrolled and dropped out children of sampled school

School	Year	Enrollment					Dropout				
		Male	%	Female	%	Total	Male	%	Female	%	Total
Amdework	2010/11	635	61.7	394	38.3	1029	54	65.1	29	34.9	83
	2011/12	761	58.7	535	41.3	1296	23	67.6	11	32.4	34
	2012/13	899	57.4	667	42.6	1566	24	70.6	10	29.4	34
Bewoll	2010/11	887	59.9	595	40.1	1482	47	65.3	25	34.7	72
	2011/12	961	60.6	624	39.4	1585	70	72.9	26	27.1	96
	2012/13	1066	54.1	903	45.9	1969	37	56.9	28	43.1	65
Chilla	2010/11	1112	53.6	962	46.4	2074	56	46.3	65	53.7	121
	2011/12	1639	55.3	1327	44.7	2966	48	65.8	25	34.2	73
	2012/13	1443	55.3	1166	44.7	2609	43	48.3	46	51.7	89
Kozba	2010/11	1355	55.9	1071	43.5	2426	17	37.8	28	62.2	45
	2011/12	1170	55.6	936	44.4	2106	20	43.5	26	56.5	46
	2012/13	1210	54.8	999	45.2	2209	38	58.5	27	41.5	65
Wereda Total	2010/11	20845	54	17766	46	38611	650	57.3	485	42.3	1135
	2011/12	22918	53.5	19904	46.5	42822	294	63	173	37	467
	2012/13	17414	52.9	15501	47.1	32915	434	58.9	303	41.1	737

Source: Dehana Wereda Office of Education

As shown in the Table 3 above, GER rate of children to primary school of the wereda for the years 2011/12 was 82.7%. This achievement was a bit higher than the national average of the same time (79.8%) and lower than the Zonal achievement of year 2011/12 (89.9%). But the Wereda's GER achievement for the year 2012/13 improved to 86.3% which was higher than the Zonal achievement (85.9%).

Alternative schools - To realize the goal of universalization of primary education by 2015, ESDP II envisaged provision of basic education through alternative modes of delivery. Accordingly, several alternative basic education centers have been established in the regions (ESAA, 2005).

In Dehana Wereda, there are 19 alternative schools constructed by the community for first cycle education for kids who can't travel longer distances. The government recruits first cycle schoolteachers (facilitators) for alternative schools. The Gross Enrolment Rate in the alternative basic education program is 5.2% for both sexes and 6.9% for females. If we include this in the 2004/05 enrolments, the GER (79.8%) will increase by 5.2% and becomes 85.0%.

The data in Table 4 indicates that the alternative school situations in Dehana wereda and in Wag Himera Zone.

Table 4 Wereda and Zone alternative schools situation

No	Wereda	No of alternative Schools (station)	Year	No of students			No of teachers (Facilitators)		
				Male	Female	Total	Male	Female	Total
1	Dehana Zuriya.	8	2010/11	208	192	400	7	1	8
	Wag.Him.Zone	243		12818	11229	24047	265	89	354
1	Dehana Zuriya.	6	2011/12	308	197	605	9	3	12
	Wag.Him.Zone	274		19001	17476	36477	419	168	587
1	Dehana Zuriya.	19	2012/13	980	832	1812	28	8	36
	Wag.Him.Zone	297		19145	18283	37428	497	203	700

Source: Wag Himera Zone Office of Education

As showed in Table 4 above, the wereda has only 19 alternative schools. Dehana wereda didn't utilize the benefit of alternative schools. The total number of such schools constructed till 2012/13 were only 19, which is lower as compared to other woredas. This could be because of the less attention given by the government to involve communities and other NGOs in establishing alternative schools.

In line with this, the GPI of the alternative schools of the wereda for the same year was 0.85, which is lower than the formal (government) schools of the same year (0.89).

4.1.2 Gender disparity at primary level

The direction of gender disparity in primary enrolment can be indicated using the Gender Parity Index (GPI), which is the ratio of female to male enrolment ratios. In a situation of perfect equality between boys and girls enrolment rates, GPI is 1 while 0 indicates the highest disparity.

The GPI of Wag Himera zone and Dehana Wereda is calculated from the data indicated in Table 3 above. Thus, the gender parity index of the wereda for the year 20010/11 when compared to the year 2012/13 were improved from 0.85 to 0.89 respectively.

The GPI of Wage Himera Zone for the year 2012/13 were 0.90. The GPI of the Wereda is lower than the GPI's of the Zone and the Region (0.92) but better than the National GPI (0.81).

The GPI in the alternative school coverage for Wage Himera Zone in the year 2012/13 showed to be 0.95, which is better than the GPI of the formal primary schools (0.92). This could be because the schools were opened within their village which the distance and other socio-cultural factors do not affect the household heads in sending their children to these schools.

Teachers' number and qualification - Achieving Universal Primary Education (UPE) alone calls for more and better-trained teachers. The number of students per teacher is a frequently used quality signal. Thus the teacher to pupil ratio has much to do with the quality of education that in turn has direct influence on children's staying in school and reduce dropout situation. In the countries with the highest pupil/teacher ratios, barely one-third of students who start primary reach grade 5.

According to the education strategy of Ministry of Education, the qualification required for first cycle teachers and second cycle teachers is certificate from TTI (10+1) formerly 12+1 and diploma from TTC (10+3) formerly 12+2 respectively (MOE, 2003). But from the focus group discussion with parents, most of the second cycle teachers are graduates of TTI and

parents with adequate information about the capacity of the teachers and the poor performance their children usually complain about their future competence.

The data in Table 5 indicates that the quality and number of male and female teachers for first and second cycle primary schools.

Table 5-Teachers number and qualification of the sampled schools.

School	Year	First cycle (1-4 Grades)			Second cycle (5-8 Grades)					
		Certificate (TTI)			Certificate (TTI)			Diploma (TTC)		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Amdewok	2010/11	*	*	*	*	*	*	*	*	*
	2011/12	*	*	*	*	*	*	*	*	*
	2012/13	7	8	15	7	7	14	-	-	-
Biwoll	2010/11	*	*	*	*	*	*	*	*	*
	2011/12	*	*	*	*	*	*	*	*	*
	2012/13	2	11	13	12	2	14	5	-	5
Chilla	2010/11	15	4	19	8	-	8	-	-	-
	2011/12	14	2	16	8	-	8	10	-	10
	2012/13	16	8	24	10	4	14	10	2	12
Kozba	2010/11	6	10	16	13	2	15	11	2	13
	2011/12	5	9	14	13	2	15	12	2	14
	2012/13	5	8	13	10	6	16	9	2	11
Total	2012/13	30	35	65	39	19	58	24	4	28

Source: Dehana Wereda Office of Education *- Data not available

As the results of the data in Table 5 clearly shown that in all the sampled schools only 32.6% of the total teachers assigned to teach second cycle (grades 5-8) were qualified *i.e.* they hold diploma. This situation worsened while looking at distribution of qualified teachers to PAs far from towns. In this study only 5.8% of the second cycle teachers were qualified for the required standard in two schools that are far from the towns. With regard to the quality of first cycle teachers all teachers fulfill the minimum requirement.

The facilitator (alternative school teachers) to pupils' ratio for the wereda for the year 2012/13 was 1 to 50 and for the Zone was 1 to 53 respectively. This figure was not that much different with that of the formal schools. The teacher to pupils' proportion for the period for the wereda and Zone were 1: 51 and 1: 57 respectively. With regard to quality of teachers in the alternative schools, they were less experienced and less qualified even below the minimum requirement for the first cycle.

With regard to the quality of education, the researcher has come across Ato Moges Merka who lives in Amdework kebele. He said "I had sent two children to University and left with two children at home. I am worried about the quality of teachers that both my kids at grade four and five can't read, write and numerate. I tried to re-enroll the fourth grade boy to grade one so that he can learn better again but the school officials refused to do so." Finally Ato Moges Merka concluded that there are parents who are discouraged about the poor performance of their children in education and tend to keep elder boys to share the farming with them. He mentioned evidences by listing idle children who dropped out of secondary schools and who could not get land at least to become a farmer.

As the number of primary school teachers shown in the Table 6 above the teacher- pupil ratio of the wereda for the years 2010/11, 2011/12 and 2012/13 were 1:71, 1; 75 and 1: 51 respectively. When compared with the Zonal figure of the same year it showed that to be 1: 65, 1: 62 and 1: 57 and is when compared to the year 2010/11 region's teacher pupil ratio was 1:69 and national figures 1:66 of the same years.

The proportion of female teachers to male teachers has a lot to do the role model of females to school aged girls. This proportion has shown an increasing trend in the years 2003/04 which was 25.6% and 2012/13 that was 37.6%. This proportion is better than the zonal proportion (for the year 2012/13 which is 34.7%).

4.1.3 Dropout situation in primary schools

The dropout situation of the wereda as it is shown in table 4 above for the years 2010/11, 2011/12 and 2012/13.

Regarding the daughters' dropout, it was 42.7% in the year 2010/11 and slightly lowered to 37% in the year 2011/12 and again rose up to 41% which again was better than the year 2010/11.

The dropout situation in the Wereda was very much reduced and the daughters' dropping out of school were still lower than that of their boy counterparts. This could be because of the improvement of the societies' attitude towards education in general and females' education in particular. The results from teachers and school heads questionnaire indicated that parents awareness towards education were improving because of the continuous follow up and discussion with dropout parents and community elders in general.

From the selected schools, one of them (Chilla primary school) has school feeding program assisted by WFP that they provide once per schooling shift, at the very beginning of the shifts and children used to come early not to miss the food. According to school officials, this feeding program helped a lot as incentive for children coming to school and gives additional strength for those who travel longer than three hours to reach home for the next meal. The school officials confirmed that the dropout situation somehow reduced because of this incentive.

From the focus group discussions held with key informants in different PAs, the dropout situation gets worse when it comes to secondary education where most of the children are forced to go to towns and families may not be able to afford all their costs.

4.1.4 Access to primary education

Although this is an encouraging sign towards the achievement of the universal primary education by the 2015, GER is not good indicator of primary school coverage as it includes the over- and under-aged children. One of the key criteria for UPE is the achievement of Net Enrollment Ratio (NER) close to 100%. NER is the best way of measuring school coverage and refined indicator of access. Only countries with high intake levels of official school age will achieve the goal in these terms.

In Dehana Wereda, the GER achievement for the year 2012/13 was 86.3% for all children who were above or below the school aged standard. Even though GER couldn't tell the exact figure of primary education achievement, still a lot has to be done to bring children to school and towards achieving the universal primary education by the year 2015.

4.2 Factors determining gender disparities in enrolment and dropout in primary education

4.2.1 Households characteristics

Regarding the ethnic composition of the respondents 100% of the sample respondents reported that they belong to Amhara & Agew ethnic group. The corresponding figures for female-headed households are 34 (22.7%) and male headed households are 116 (77.3%).

4.2.1.1 Household heads' age

The data in Table 6 indicates the distribution of sampled household heads by age.

Table 6 Distribution of Sampled Household Heads by Age

S. No	Category of sampled HHh by age	Frequency	Percent
1	20-30	9	6.0
2	31-40	60	40.0
3	41-50	44	29.3
4	51-60	24	16.0
5	>60	13	8.7
	Total (N)	150	100.0

Source: Own survey result, 2014

As indicated in the Table 6, the majority (69.3%) of the respondents fall in the age group 31-50 years. From the total respondents 13 (8.7%) were aged greater than 60 years.

According to Abebe, (2000) in this category, the labour contribution in man equivalent is the largest of all age groups and almost all of the household and farming tasks carried out by themselves and usually send their to schools.

The data in Table 7 below indicates that the age of sampled household heads cross tabulated with enrolment situation of children. The not enrolled and enrolled data do not represent the number of children rather shows the relation of household heads' age with enrolment situation of children. It also shows the significance level of age with enrolment situation of children under selected households.

Table 7 Age of sampled household heads with enrolment situation of children (N=103)

S.No	Age of HHh	Enrollment of children				χ^2	Cramer's V-Value
		Not enrolled	%	Enrolled	%		
1	20-30	1	4.8	7	8.5		
2	31-40	3	14.3	41	50		
3	41-50	3	14.3	24	29.3		
4	51-60	11	52.3	6	7.3		
5	>60	3	14.3	4	4.9		
	Total	21	100	82	100	29.478***	0.535

Source: Own survey result, 2014 ***- significant at 1% level

As shown in the Table 7 above, larger proportion (52.3%) of the not enrolled children were from the household head age group of 51-60. Accordingly, less proportion of children were observed to enroll from this age category, i.e. 7.3% of the total enrolled children from the selected households. The reason could be that household heads of this age group are with lower man equivalent as compared to the others and hence need children's labour support to fulfill the livelihood of the family.

On the contrary, enrolment with age of the household heads it was this age group (31 -50) who enrolled the largest proportion (79.2%) of the total enrolled children. This is probably because the age group is the most working group that the children may not stay home or dropout their education for supporting agricultural and domestic works.

The results of the chi-square indicated that age is highly significant at 1% level with enrolment of school-aged children. From this result it can be concluded that age has a relationship with enrolment situation of the child. As explained above, the elder household heads are those who not send children to school since they need labour contribution of their children. With regard to the enrolled category, more children enroll to school from the age category that can handle all the labour needed by themselves.

The data in Table 8 indicates that the age of sampled household heads cross-tabulated with dropout situation of children. The dropped out data do not represent the number of children rather shows the relation of household heads age with dropout situation of children.

Table 8 Age of sampled households with dropout situation of children.

S.No	Age of Hhh	Dropout of children		χ^2	Cramer's V-Value
		Dropped out	%		
1	20-30	1	2.1		
2	31-40	5	10.6		
3	41-50	8	17.1		
4	51-60	27	57.4		
5	>60	6	12.8		
	Total	47	100	32.816***	0.468

Source: Own survey result, 2014 ***- significant at 1% level

As shown in the Table 8, relatively larger proportion (57.4%) of dropouts and 52.3% of the not enrolled children come from families of household heads whose age ranges in between 51-60years. This is probably because these groups were with higher need of labour support from their children.

It was the age group of household head (31 -50) in which lower proportion of dropout groups observed. This is because the age group is the most working group that the children may not drop their education for supporting agricultural and domestic works.

The results of the chi-square indicated age is highly significant with dropout of school-aged children, at 1% level. From this result it can be concluded that age has a relationship with dropout situation of the child. As explained above, the elder household heads are those who dropout their children from school since they need labour contribution of their children.

Study results showed different conclusions that some of the results coincide with this study and some contradict. According to Mulugeta (1998), the relationship between school enrolment and age of the head was found to be positive. Manifestly, elder parents were found to be sending their children to school as a forward-looking investment because they feel that they will be helped by their children's income later, perhaps in old age.

But the results of this study showed a different view of Mulugeta's results and consistent with a study by Herko (2005), who indicated that older parents are less likely to send their children to school than younger parents.

4.2.1.4 Number of total children in the household

From the frequencies obtained, only 7.3% of the sampled population has one child and 11.3% of the respondents have 11.3% children. In contrast 12.7% of them have six and seven children. The majority of the sampled population (68.7%) has three to five children in their household.

Parents were asked to indicate the total number of children they have in their families and the data in Table 9 indicate that the total number of children in the household of enrolled, dropped out and not enrolled groups.

Table 9 Number of total children in the household with enrollment and dropout Situation of children

S. No.	No. of total Children in hh	Enrollment of children						Dropout of children		Grand Total	%
		Not enrolled	%	Enrolled	%	Total	%	Droppedout	%		
1	1	4	19	5	6.1	9	8.7	3	6.4	12	8
2	2	1	4.8	13	15.9	14	13.6	3	6.4	17	11.3
3	3	1	4.8	22	26.8	23	22.3	8	17.1	31	20.7
4	4	3	14.3	22	26.8	25	24.3	7	14.9	32	21.3
5	5	3	14.3	16	19.5	19	18.5	12	25.5	31	20.7
6	6	4	19	3	3.7	7	6.8	9	19.1	16	10.7
7	7	5	23.8	1	1.2	6	5.8	5	10.6	11	7.3
	Total(N)	21	100	82	100	103	100	47	100	150	100

Source: Own survey result, 2014

As clearly indicated in Table 9, the summary of results indicates that the absolute majority (76.6%) of parents whose children dropped out of school have between three and five children.

Concerning the enrolment of children, as indicated in the Table 11, 71.4% of the non-enrolled children were from households having children between four and seven. Among the total dropouts in the sampled households 55.3% were from households having a total number of children between five and seven. Among the enrolled children 75.6% of them were from families having four and less than four children.

From the above result, it could be seen that children from relatively small family sized households were most likely to enroll in school and continue till the end of primary education. This is because families can afford the schooling and living expenses by themselves without pulling children from school to fully engage them in farming activities. From the household heads those having one and two children, the percentage of dropout was only 6.4% for both household categories. From the processed data and result obtained it was found that the girls dropped out more who had come from households with relatively larger family size.

The result of this study does not go in line with Teshome (2002), whose study stated that large families having more than seven children in both regions have a lower dropout rate than small and medium sized families.

It has to be considered that this finding is consistent with reports of Leka and Dessie (1994, cited in ESAA, 2003) which shows that many children who do not enroll and dropout come from large families having eight or more children in Ethiopia. Similar results stated that the larger the number of children of school age, the lower the chances of enrolling girls and the higher would be female dropout rate, since earlier born daughters are often kept at home or withdraw from school to care for young siblings (Ojojie, 2001).

4.2.1.5 Education level of household head

In the interview household heads whose children enrolled, dropped out and never enrolled were asked to indicate the educational levels they have attained. Thus it was found that 56% of the respondents had no education and 30% of them can read and write.

The data in Table 10 indicates that level of household heads education into no education, primary education, secondary education and tertiary education.

Table 10 Education level of household head

S. No.	Education level of household head	Frequency	Percent
1	No education	84	56.0
2	Primary education	45	30.0
3	Secondary education	18	12.0
4	Tertiary education	3	2.0
	Total	150	100.0

Source: Own survey result, 2014

From the results of the Table 10 above, 56% of the sampled household heads were with no education. Only 30% and 12% were having primary and secondary level of education.
The data in Table 11 below shows education level of household heads in relation to enrolled and not enrolled group of children. It also indicates the cross tabulated results of chi-square.

Table 11 Education level of households with enrolment situation of children

S. No.	Education of the hhh	Enrolment of children: Not enrolled	%	Enrolled	%	Total	%	χ^2	Cramer's V-Value
1	No education	15	71.4	34	41.5	49	47.6		
2	Primary education	2	9.5	35	42.7	37	35.9		
3	Secondary education	3	14.3	12	14.6	15	14.6		
4	Tertiary education	1	4.8	1	1.2	2	1.9		
	Total	21	100	82	100	103	100	9.355**	0.301

Source: Own survey, 2014 **- significant at less than 5% level

From the results shown on the Table 11 above, the proportion of never enrolled children that come from families with no education were 71.4%.
On the other hand 42.7% of enrolled children were from families with education who can read and write (primary education). On the contrary, 41.5% of the enrolled children had come from families of no education. The reason could be the positive attitude of families for children's

education, the government policy to meet the Universal Education to all citizens, and the relative availability of first cycle schools in localities.

Among the enrolled girls the majority of them had come from families at least with primary education and also less proportion of dropped outs.

From the results of the cross tabulation, the chi- square tests resulted as a significant relation (at 5% significance level) existed among level of education of families with that of children's enrolment and their persistence in school till the last grade. It is expected that as the educational level of the household head / family increases, the likelihood of families sending children to school will increase and dropout will decrease.

Several of the studies showed that children of educated parents were more likely to be enrolled in school than those of uneducated parents. Moreover girls have better chances if both parents were educated, uneducated parents prefer to send boys to school (FAWE, 2001).

The data in Table 12 below shows, the educational level of household heads with the dropout situation of children. In addition to this, it indicates that the results of cross tabulation of education level of household heads with the dropout situation of children. It doesn't indicate the number of children who dropped out of school.

Table 12 Education level of households with dropout situation of children

S. No.	Education of the hhh	Dropout of children		χ^2	Cramer's V-value
		Dropped	%		
1	No education	35	74.5		
2	Primary education	8	17		
3	Secondary education	3	6.4		
4	Tertiary education	1	2.1		
	Total	47	100	9.817**	0.256

Source: Own survey, 2014 **- significant at less than 5% level

Overall results indicate that the majority of household heads whose children dropped out of schools and never enrolled to school have no education. From the results shown in the Table

12, the proportion of dropped out children that come from families with no education were 74.5%.

From the results of the cross tabulation, the chi- square tests resulted as a significant relation (at 5% significance level) existed among level of education of families with that of children's dropout situation. It is expected that as the educational level of the household head/family increases, the likelihood of families maintaining children in school and dropout situation will decrease.

This finding is actually consistent with what Leka and Dessie, 1994; cited in WAD, 2004 earlier reported. They indicated that many students who drop out in Ethiopia come from illiterate parents and that the proportion of such families could be as high as 65-78% in rural areas. It was found out in Benshangul-Gumuz region that there was a significant correlation between parental educational background and female enrolment in schools (WAD, 2004).

4.2.1.6 Education level of spouse (Maternal education)

The data in Table 13 indicates, maternal education level of the respondents. The frequency and percentage figures only refer to the household heads' wives and female-headed households and not of children.

Table 13 Education level of the spouse

S. No.	Education level of spouse	Frequency	Per cent
1	No education	87	58.0
2	Primary education	56	37.3
3	Secondary education	7	4.7
	Total	150	100

Source: own survey result, 2014

From the results in Table 13 the good majority (58%) of the spouses were with education level of no education. Of them, 37% had primary education and only 4.7% of them had secondary education.

The majority of mothers have no formal education because of the poor access they had to school and some (37.3%) of them have little education of read, write and numerate at level of primary education.

From the results of studies, it is found out that the illiteracy rate in Ethiopia is high and approximately 70 per cent for females (Lasonen, 2005).

The data in Table 14 below indicates that education level of the spouse (mother) and enrolment situation of the child. The figures indicated do not directly refer to children but of mothers of not-enrolled and enrolled children.

Table 14 Education level of spouse and enrolment situation

S. No.	Education of the spouse	Enrolment of children				Total	%	χ^2	Cramer's V-Value
		Not enrolled	%	Enrolled	%				
1	No education	15	71.4	38	46.3	53	51.5		
2	Primary education	6	28.6	38	46.3	44	42.7		
3	Secondary education	-	-	6	7.4	6	5.8		
	Total	21	100	82	100	103		10.893***	0.269

Source: own survey result, 2014 ***- significant at 1% probability level

As shown in the Table 14 above, large majority (71.4%) of the non-enrolled children mothers have no education and 28.6% of them have primary education. From the enrolled category mothers, 46.3% of them have no education and 46.3% of the mothers have primary education level.

For the non-enrolled categories, since the large majority of them were with no education, they didn't enroll their children to school. This is probably because mothers with no education do not know the benefit of education and moreover, traditional and cultural factors affect them more than educated ones.

The chi-square results showed that there is a significant relation between spouses' level of education and enrolment situation of children, at 1% level. Children with educated mothers most likely enroll to school and rarely combine household chores with their education. Especially girls could benefit if they have mothers had some level of education.

Studies showed maternal education levels were found to have a significantly positive impact on the probability of girls' school enrolment compared to that of boys (Bustillo, 1989 cited in Tassew *et al*., 2006). According to (Ray 2003; cited in Tassew *et al*., 2006) In Ghana, the education of adult females, compared to that of adult males, was found to have a significantly positive effect the number of years a child stays in school (Ray, 2003 cited in Tassew *et al*., 2006).

The data in Table 15 below indicates that education level of spouse and dropout situation of children. All the indicated figures refer to the mothers of the dropout categories and not directly to children themselves.

Table 15 Education level of spouse and dropout situation

S. No.	Education of the spouse	Dropout of children		χ^2	Cramer's V-value
		Dropped	%		
1	No education	34	72.3		
2	Primary education	12	25.5		
3	Secondary education	1	2.2		
	Total	47	100	5.926*	0.199

Source: own survey result, 2014 *- significant at 10% probability level

From the results of Table 15, larger majority (72.3%) of the respondent mothers in the dropout category were with no education and 25.5% of them have primary education. Children from mothers of no education more likely dropout of their education probably because, such families may prefer to engage their children to agricultural work and household chores and

moreover may engage girls to early marriage which may enforce early with drawal of girls schooling.

The chi-square results indicated that there is a significant relation between education level of mothers and dropout situation of children, at 10% level. As discussed earlier education level of the spouse directly influences the likelihood of children completing their schooling than children of mothers with no education.

Similar studies revealed that the higher levels of mother's education the less likely and adolescent is dropout particularly in the case of girls Lloyd, *et al*., 1998; cited in UNICEF, 2003. Similarly Possi, 1999; cited in Tassew *et al*., 2006 said that mother's education is important as it influences girls enrollment and participation in education. Therefore these evidences showed that the educational background of the mothers could also influence female schooling.

4.2.1.7 Birth order of the child

Household heads were asked to tell the birth order of their children by saying elder and younger. This is indicated in Table 16 and additionally shows that which group of the children most likely enroll, not enroll and dropout of school. It indicates the significant relation of birth order of the child with enrolment and dropout situation of children under consideration.

Table 16 Birth order of children and enrolment situation

S. No	Birth order of the child	Enrollment of children						χ^2 (C)	Cramer's V-value
		Not enrolled	%	Enrolled	%	Total	%		
1	Younger	6	28.6	51	62.2	57	55.3		
2	Elder	15	71.4	31	37.8	46	44.7		
	Total	21	100	82	100	103	100	6.348**	.272

Source: Own survey result, 2014 **- significant at less than 5% level

As shown in the Table 16, cross tabulation of birth order of children with enrolment situation resulted that 71.4% of the never enrolled children were elder children. On top of that, as compared to younger ones elder children were lowest in proportion to enroll, i.e. 37.8%. This was because elder children share the burden of farming and household tasks with their families and younger children benefited with the existence of elder brothers and sisters in the family.

Tassew *et al*. (2006) reported in their research findings in Ethiopia that the presence of elder children reduced the likelihood that boys and girls would have to combine work and school and hence more likely to attend schooling.

The data in Table 17 indicates that the relationship of birth order of children with that of dropout situation of children. It also shows the significant relationship of birth order with dropout situation of children.

Table 17 Birth order of children and dropout situation

S. No	Birth order of the child	Dropout of children		χ^2	Cramer's V-value
		Dropped out	%		
1	Younger	14	29.8		
2	Elder	33	70.2		
	Total	47	100	7.459**	.237

Source: Own survey result, 2014 **- significant at less than 5% level

The result in Table 17 indicates that larger proportion (70.2%) of the dropout children belong to the elder group. This is probably because elder children share the burden of farming activities and household chores with their families and this will again help in maintaining younger children in school since the opportunity cost of schooling them is relatively lower.

As the results of the chi-square tests shown there is significant relationship (at less than 5% significant level) between birth order of the child with dropout situation of the children under consideration.

Greater adult labour endowment that can substitute child labour in a household was found to significantly increase the probability of child enrolment (Tassew *et al.*, 2006).

4.2.1.8 Household head's attitude towards education

House hold heads were asked to express their agreement/disagreement on four statements on scales ranging from strongly agree (5) to strongly disagree (1). In addition to this, for negative statements the scoring pattern was reversed and these four statements having a total score of 20 were summed up based on the responses collected and entered the SPSS. The frequency results categorized scores indicated in Table 18.

Table 18 Categorized Hhh's responses on attitude towards education

S. No.	Category	Attitude score	Frequency	Percent
1	Least favourable	9 – 11	20	13.4
2	Somewhat favourable	12 - 14	34	22.7
3	Favourable	15 - 17	71	47.3
4	Highly favourable	18 - 20	25	16.6
		Total (N)	150	100.0

Source: Own survey result, 2014.

From the results majority of the respondents have positive attitude towards education. Larger proportion (47.3%) of the respondents was responded to have better attitude towards children's education.

4.2.1.9 Household heads attitude towards female education

Household heads were asked to respond to 12 statements on their attitude towards female education on scales ranging from strongly agree (5) to strongly disagree (1). In addition to this, for negative statements the scoring pattern was reversed and these 12 statements were

summed out of total score of 60. Based on the score they got their responses were categorized for the sake of easiness and it is presented in Table 19.

Table 19 Categorized hhh's responses on attitude towards female education

S. No	Category	Attitude score	Frequency	Per cent
1	Least favourable	29-36	1	0.7
2	Somewhat favourable	37-44	15	10.1
3	Favourable	45-52	69	46
4	Highly favourable	53-60	65	43.2
		Total (N)	150	100.0

Source: Own survey results, 2014

As shown in the Table 19, 46% of the respondents had favourable attitude towards female education and 43.2% of them had highly favourable attitude towards female education. 10.1% of the respondents had somewhat favourable attitude towards female education and only 0.7% of the respondents had least favourable attitude towards female education. This is probably because communities in the study area were becoming well aware of the rewards of educating daughters and the political attention given to girls' education and policy to reduce the impacts of cultural barriers hindering girls' participation in education.

Results clearly portrays that the attitude of parents towards their daughters' education is positive. In fact the willingness of parents to send their daughters to school in the first place can by itself be a clear indicator of their positive attitudes. In an earlier study both in the Oromia and the Amhara region also showed that quite a majority of parents support their daughters' education (Teklehaymanot, 1999; cited in Mulugeta and Amanuel, 2000).

4.2.2 School factors

The sampled household heads were asked to tell the estimated time required by their child to reach school. Their responses concerning the distance factor and the enrolment situation of the child together with the cross-tabulated results are presented in Table 20. The numbers under not-enrolled and enrolled categories do not represent children's number.

Table 20 Estimated distance of school in terms of time to reach school with enrolment and dropout of children

S. No	Estimated distance in terms of time	Enrollment of children						χ^2	Cramer's V-value
		Not enrolled	%	Enrolled	%	Total	%		
1	15 minutes	1	4.8	13	15.9	14	13.6		
2	30 minutes	1	4.8	23	28	24	23.3		
3	60 minutes	12	57.1	25	30.5	37	35.9		
4	180 minutes	7	33.3	21	25.6	28	27.2		
	Total	21	100	82	100	103	100	9.078**	.297

Source: Own survey result, 2014 **- significant at less than 5%

As shown in the Table 20 a large proportion (90.4%) of children whose residences were farther than 60 minutes were out of school. From the enrolment category the response obtained indicated that 27.2% and 35.9% of their children took 180 minutes and 60 minutes respectively. Only 13.6% and 23.3% of the children reach school in 15 and 30 minutes time respectively. From this result it can easily be seen that most of the children travel longer distances to reach school and back to home.

Results of chi-square tests indicate there is a significant relation (at less than 5% significant level) between distance factor with that of enrolment of children.

Enrolled children were also asked to estimate the time required to reach school and similar results with that of household interview were obtained. To see the situation of children who came from neighboring PAs and Weredas out of the PA where the school is located, 10 school children were interviewed and the result showed they travel more than 3 hours to reach school.

On contrary, only 9.5% of the never enrolled children were living in the surrounding of the school that could take only up to fifteen minutes. The majority of the enrolled children or 43.9% came from location that could only take by children up to half an hour and 30.5% of the enrolled children came from distances that could take children an hour. The rest 25.6% of the

enrolled children had come from the farther distance (an hour and half to reach by children) of the PA where the school located.

> A focus group discussion was done with a group of students who came from neighboring Wereda (Gazgibella) to Chilla School. “We travel more than six hours a day. To reach on school time, we get up early at 5am and the worst situation the school didn’t consider our problems and they couldn’t tolerate even ten minutes late arrival and equally punished with children coming from villages surrounding the school.” The researcher observed that these groups of students were all aged older than 14 years and they said it is impossible to imagine for children younger than 14 to travel 6 hours a day with empty stomach.

But in the case of Chilla, there is an interesting school feeding program once a day for children. Those groups of children were asked about the impact of distance on their schooling and said they get tired and couldn’t study and all conditions for children’s schooling were stressful when compared with children in the areas coming from relatively nearer distances.

According to the discussion, most female students travel longer distances with group of girls coming from same village and with boys of family relatives to reduce the danger of harassment and abduction.

The data in Table 21 indicates that the estimated distance given by household heads and their relation with dropout situation of children. The significant relation of distance factor and dropout situation is indicated. The numbers shown in the dropout do not indicate children’s number.

Table 21 Estimated distance of school in terms of time to reach school with enrolment and dropout of children

S. No	Estimated distance in terms of time	Dropout of children		χ^2	Cramer's V-value
		Dropped out	%		
1	15 minutes	2	4.3		
2	30 minutes	6	12.8		
3	60 minutes	12	25.5		
4	180 minutes	27	57.4		
	Total	47	100	13.556***	.301

Source: Own survey result, 2014 ***- significant at less than 1% level

From the total of the dropped out children 57.4% of them were coming from areas where schools are located far away with distances longer than one and half hour to reach. Dropped out children who were far up to half an hour distance to reach school accounted to only 17%.

Results of chi-square tests indicate there is a significant relation (at less than 1% significant level) between distance factor with that of dropout of children.

Similar studies on impact of school distances show similar results consistent with this study. According to Teshome (2002), distance from school has been another deterrent for girls' education in many countries in Africa. Odaga and Heneveld, 1995; cited in Mulugeta, 1998 refer to a large number of studies in the region where it has been reported that the long distances girls (particularly rural girls) travel to school has two major problems: one relates to the length of time and energy children have to expend to cover the distance, often on an empty stomach, the other relates to the concern and apprehension parents have for the sexual safety of their daughters.

With respect to distance, the results lend confirmatory support to previous studies demonstrating distance as a deterrent factor as in Rose *et al.*,1996; cited in Teshome, 2002). The effect of distance, as expected, is higher in rural areas, and differentially so for rural females. For females, especially for those at the puberty stage, the attendant worry of the parents can have a significant negative effect on their enrolment.

According to World Bank study in Ethiopia, the distance of the nearest school from the homestead negatively influence enrollment and completion probabilities, especially in rural areas. This effect may capture the opportunity cost of primary school attendance, which will increase as the distance to school increases. Given that school children must generally walk to school, distance may also serve as a direct barrier to attending primary school among children living on remote farms, particularly young girls. To illustrate this point, households seven to twelve kilometers away from a school are 12 percent less likely to send their daughters and 18 percent less likely to send their sons to primary school (Mohammad, 2006).

4.2.3 Economic factors

4.2.3.1 Existing costs of schooling

Household heads were asked to rate the existing costs of schooling such as school payments, costs of textbooks, costs of accommodation, costs of uniforms and costs of stationery that could hinder enrolment and dropout situation of children. They were also asked to rate school related costs whether to push or pull children from school and their results are shown in Table 22.

Table 22 Hhh's perception about the existing costs of schooling with enrolment situation of children

S. No	Hhh's perception about the existing costs of schooling	Enrollment of children						χ^2	Cramer's V-value
		Not enrolled	%	Enrolled	%	Total	%		
1	Low	8	38.1	44	53.7	52	50.5		
2	Average	5	23.8	34	41.5	39	37.9		
3	High	8	38.1	4	4.8	12	11.6		
	Total	21	100	82	100	103	100	18.012***	0.418

Source: Survey result, 2014 ***- significant at 1% level

The results as shown in Table 22 that 95% of the respondents from enrolled category rated as it had low and average which means that it didn't hinder the enrolment. From the dropout

category 38% of the respondents responded as if it had high degree of impact to pull children from school.

The household heads that perceived costs of schooling as high (38.1%) were seen not to send children to school. From the enrolled group the majority proportion (53.7%) of respondents who perceived costs of schooling as low sent their children to school. From the results of cross tabulation the relation of perception of costs of schooling with enrolment has shown high significant relation (at 1% significance level).

Different studies on related areas are in consistent with the findings of this study. From the results of the study in Amhara and Oromia regions by Teshome (2002), direct schooling costs have been found to be the major reason parents offer for not educating children.

The data indicated in the Table 23 shows the household perception on the dropout situation of children. It shows the significance relation and cross tabulation results. The numbers under dropout do not indicate the children's number.

Table 23 Hhh's perception about the existing costs of schooling with dropout situation of children

S. No	Hhh's perception about the existing costs of schooling	Dropout of children		χ^2	Cramer's V-value
		Dropped out	%		
1	Low	16	34		
2	Average	13	27.7		
3	High	18	38.3		
	Total	47	100	14.353***	.309

Source: Survey result, 2014 ***- significant at 1% level

From the results of Table 23, 38.3% of the respondents perceived schooling costs as high and their children dropped out of school. The cross tabulation results showed that there is high significant relationship (at 1% significance level) between dropout and perceived costs of schooling.

Apart from tuition, such costs include fees for registration and admission and book rental. It is clear that among the direct school costs considered, the cost of school materials like the purchase of pencils, pens and exercise books are the costs that strongly influence parents to decide upon the discontinuation of their children's education, in both Amhara and Oromia regions (Teshome, 2002). The data in Table 24 indicates the different direct costs of schooling rated by the household heads.

Table 24 Household heads' rating of schooling costs

S. No.	Types of direct costs of schooling	Household Heads' rating	Frequency	Per cent
1	Costs of stationery	Low	39	26.0
		Average	35	23.3
		High	76	50.7
2	Costs of accommodation	Low	76	50.6
		Average	25	16.7
		High	49	32.7
3	Costs of text books	Low	74	49.3
		Average	35	23.3
		High	41	27.3
4	School payments	Low	29	19.3
		Average	65	43.3
		High	56	37.3

Source: Survey result, 2014

As shown in Table 24 the higher proportion (50.7%) of the respondents rated costs of stationary as a major cost of schooling followed by school payments to contribute for the different factors pulling out children from school.

In line with this finding, the previous study also suggested that costs accommodation, textbooks, transport and school payment could be the other distant factors that play a negative

role on children's education in Amhara Region in the given order of significance (Teshome, 2002).

4.2.3.2 Child labour

Household heads were asked first to identify the peak seasons for labour requirement for agriculture and household chores. The data in Table 25 indicates the peak season for labour requirement of the family throughout the year. All the figures indicated are of household heads and are not of children.

Table 25 The peak season for labour requirement

S. No.	The peak season for labour requirement	Frequency	Percent
1	September- November	109	72.7
2	December- January	33	22.0
3	February- April	6	4.0
4	May- end of June	2	1.3
	Total	150	100.0

Source: Own survey result, 2014

As indicated in Table 25 the peak time for the labour requirement of the majority of the households (72.7%) were September –November where the school is under function and primary school aged children were supposed to be in schools.

The respondents also showed their labour sources at peak times and hence the larger proportion of them (41.3%) had used traditional labour pooling system. As clearly shown in the Table 28 below, 26.7% of the respondents answered that they only rely on family labour which possibly indicate children from this group of families are under threat of burden of child labour.

A study done in Amhara has shown the feelings of such types of families who basically use their children as a major and only source of labour and hence it exposed them to indirect costs or shortage of labour at home. In Amhara 82% of the respondents indicated that female education does expose them to shortage of labour at home (Teshome, 2002).

The opportunity costs 'costs of children' schooling is associated with resources/services lost due to sending the child to school. Child labour is indispensable to the survival of many rural households in Sub-Sahara Africa: agricultural work, domestic work (cooking, collecting fuel. fetching water) marketing as well as child care services are required from children, with girls demanded more than boys Odaga and Haneveld, 1995; cited in Mulugeta, 1998.

Household heads were asked whether or not they used to seek other means's of labour sources when faced with shortages during peak times. As to the relation of opportunity costs or costs of children's schooling and dropouts and enrolment situations were addressed by asking the respondents to tell whether they use alternative labour sources.

Their responses for each type of labour source are indicated in Table 26. The numbers under frequency do not indicate children's number.

Table 26 Household head's labour source types at peak times

S. No.	Household head's labour source types at peak times	Frequency	Per cent
1	Hiring labor	25	16.7
2	Traditional labor pooling system	62	41.3
3	Assistance from relatives	23	15.3
4	Only rely on family	40	26.7
	Total	150	100.0

Source: Survey result, 2014

From the Table 26, it could be seen that only 26.7% of the respondents use no alternative labour except their family labour. The majority of the respondents use alternative labour sources of which traditional labour pooling system were the highest (41.3%).
From this result, it could be presumed those families that entirely rely on family labour may not send children to school or pull them out of their education.

The data in Table 27 below indicates, the alternative labour use by household heads and enrolment situation of children.

Table 27 Alternative labour use by household during peak times with enrolment situation

S. No	Alternative labour use during peak times	Enrollment of children						χ^2	Cramer's V-value
		Not enrolled	%	Enrolled	%	Total	%		
1 2	No	12	57.1	24	29.3	36	35		
	Yes	9	42.9	58	70.3	67	65		
	Total	21	100	82	100	103	100	4.553**	.236

Source: Own survey result, 2014 **- significant at less than 5% level

From the results indicated in Table 27, 57% of the never enrolled children were from households who didn't use alternative labour sources other than their families labour. The majority of the household heads of the enrolled children (70.7%) had used alternative labour sources.

The results obtained from chi- square tests showed that there is significant relation (at 5% significance level) between alternative labour use and enrolment situations of children.

The data in Table 28 indicates, the alternative labour use by household heads and dropout situation of children.

Table 28 Alternative labour use by household during peak times with enrolment and dropout situation

S. No.	Alternative labour use during peak times	Dropout of children		χ^2	Cramer's V-value
		Dropped out	%		
1	No	28	59.6		
2	Yes	19	40.4		
	Total	47	100	7.024***	.231

Source: Own survey result, 2014 ***- significant at 1% level

In relation to dropouts 59.6% of the household heads in dropout's category didn't use alternative labour sources other than their family labour sources. The results obtained from

chi- square tests showed that there is significant relationships (at 1% significance level) between alternative labour use and dropout situations of children.

The data in Table 29 indicates, that the types of tasks that children rated in a week's period. The Table also included boys' rating about the tasks that their female counter parts involve.

Table 29 Children's rating of the time spent by daughters on different tasks

S. No.	Types of tasks children involve	Child's rating	Frequency	Percent
1	Domestic works	Not at all	25	16.7
		Few days	125	83.3
		All week	-	-
2	Marketing	Not at all	30	20.0
		Few days	117	78
		All week	3	2.0
3	Agriculture	Not at all	19	12.7
		Few days	119	79.3
		All week	12	8.0
4	On domestic work elsewhere	Not at all	59	39.3
		Few days	88	58.7
		All week	3	2.0

Source: Own survey result, 2014

As shown on Table 29, the majority of children responded that they involve in almost all types of tasks for few days in every week.

Results of similar studies showed that families need for daughters involvement in different types of works initiated to pull them out of school. According to Teshome (2003), in the Amhara region, participating in agricultural activity is another area where 44% of girls spent all of their weekdays. When activities are rank ordered from parental perspectives, domestic work, agriculture, employment for household services and marketing are the ones that occupy the time available for girls in the Amhara Region.

A large number of the dropouts themselves and the teachers of Amhara region indicated that the most important obstacles to continue schooling are family poverty and the need of child labour by the parents (Habtamu , 2002). The finding of the same study in Oromia implies that even if girls are needed at home throughout the week, it does not necessarily result in dropouts. Perhaps parents have mechanisms to overcome the shortage of labour due to girls' schooling. Using grand parents or hiring other labourers may be a mechanism practiced in many areas in Ethiopia.

4.2.3.3 Occupation of household heads

There was an item in the households' interview that requested information on households' occupation. Hence, Table 30 indicates the types of household heads occupations and their relation with enrolment situation. The numbers under enrolled and not enrolled do not indicate the number of children, but of the household heads.

Table 30 Household occupations and enrolment situation of children

S. No.	Occupation of household heads	Enrollment of children						χ^2	Cramer's V-value
		Not enrolled	%	Enrolled	%	Total	%		
1	Farming	19	90.4	69	84.2	88	85.5		
2	Non-farm employment	1	4.8	6	7.3	7	6.8		
3	Government employee	1	4.8	1	1.2	2	1.9		
4	Mix of 1,2 and 3	0	0	5	6.1	5	4.9		
5	Mix of 1and 4	0	0	1	1.2	1	.9		
	Total	21	100	82	100	103	100	2.856(NS)	.167

Source: Own survey result, 2014 (NS)- non significant

The majority of the respondents or 85.5% of them involve in farming for their living and only 14.5% of the respondents engage in non-farm and mix of non-farm with farming to generate income. Hence, it was seen in the study area that almost all the community depend on farming as a source of income for the costs related to schooling of their children.

The result obtained from the cross tabulation of occupation with that of enrollment showed insignificant association.

Similar studies on the impacts of occupation of households showed to have strong relation with enrolment and dropout situations of children.

As stated by Mulugeta (1999), Occupation of parents also has a significant influence on the probability of school enrolment. Farmers (or in a general sense self-employed parents) are found to be less likely to send their children to school. The reason could be the higher need for boys'/girls' labour by farmers than government employees, who are less likely to need their children's time but more likely to appreciate the returns from education. But results of Tassew *et al.* (2006) stated that the income effect (income contribution of assets) tends to increase child enrolment and reduce child work.

The data in Table 31 below indicates the different occupation types with dropout situation of children.

Table 31 Household occupations and enrolment and dropout situation of children

S. No	Occupation of household heads	Dropout of children		χ^2	Cramer's V- value
		Dropout of children	%		
1	Farming	44	93.7		
2	Non-farm employment	1	2.1		
3	Government employee	0	0		
4	Mix of 1,2 and 3	1	2.1		
5	Mix of 1and 4	1	2.1		
	Total	47	100	3.401(NS)	.151

Source: Own survey result, 2014 (NS)- non-significant

The results from the study showed in Table 31 that 93.7% of the dropped out children were from household heads engaged in farming. However, the results of chi-square tests showed the relation with dropout as insignificant.

The respondents were also asked to tell their involvement on the different types of income earning sources such as non-farm employment, off-farm employment and inward remittance. Even though different past studies revealed these earning sources improve the enrolment situation and also reduce the dropout situation, in the study area there were no respondent who benefited in this aspect and hence left without further analysis.

4.2.3.4 Size of arable farmland

Households' income as an indicator of socio- economic status of a family has been indirectly measured by asking household heads the total area of land owned by the family. Their response was categorized for the sake of easiness for discussion and indicated in Table 32.

Table 32 Household heads category of their land holdings in hectare.

S.No.	Category of land holding	Frequency	Per cent
1	< 1 ha	44	29.3
2	1 ha	72	48.0
3	>1 to <2	18	12.0
4	2 ha and more	16	10.7
	Total	150	100

Source: Own survey result, 2014

About 12% of the respondents own land in between one and two hectares and a large number of them (48%) own one hectare of land.

In addition to this, discussant parents were asked to describe their economic conditions during focus group discussions. Overall results indicate that most of these families have low economic status even by Ethiopian standards. Parents in rural areas with low household

income and socioeconomic background face problems in sending their children to schools. Studies indicated that, in most developing countries, children of poor families have poor less chance to enroll in school and more probability to dropout than children of well to do families (Befekadu, 1998; cited in Herko, 2005).

4.2.3.5 Size of livestock (TLU)

The respondents were asked whether or not they own livestock. Their response converted into TLU and categorized into low, medium and large size of TLU holding. Among the respondents, five were with no livestock and included with those having up to 6.03 TLU under low category. These categories ranging from low to large were done for the purpose of further statistical analysis and indicated in Table 33.

Table 33 Category of households' livestock holdings in TLU

S.No	Size of TLU holding category	Size of TLU category	Frequency	Per cent
1	< 6.03	Low	70	46.7
2	6.03 – 10.43	Medium	34	22.7
3	10.52 – 20.54	Large	46	30.6
		Total	150	100.0

Source: Own survey result, 2014

As results showed in Table 33 above, 46.7% of the respondents own low livestock in terms TLU and 22.7 and 30.6% of them own medium to large TLU respectively.

As stated on the description of the study area, large proportion of the wereda is Kola agro climatic that rarely fits to crop cultivation and the majority of the farmer rear Goat& Honey Production as coping mechanism to the climatic stress and as a support of their livelihood.

Respondents were asked also to tell whether or not size of livestock ownership perceived by the community as indicator of status of living. From the further processing of data collected, majority of them (82.7%) confirmed to be an indicator. Hence it is taken as an important variable to determine the situation of children's enrolment and dropout.

The data in Table 34 indicates that the relationship of livestock holding on enrolment situation of children, households' livestock holdings were categorized and chi-square test results showed.

Table 34 Size of TLU category and enrolment situation of children

S. No	Size of TLU category	Enrolment of children						χ^2	Cramer's V-value
		Not enrolled	%	Enrolled	%	Total	%		
1	Low	17	81	21	25.6	38	36.9		
2	Medium	1	4.8	25	30.5	26	25.2		
3	Large	3	14.2	36	43.9	39	37.9		
	Total	21	100	82	100	103	100	22.136***	0.464

Source: Own survey results, 2014 * **- significant at 1% level

The results of Table 34 indicates that from the not enrolled category 81% of the respondents own lower livestock holdings in terms of TLU and from the enrolled category 36.9% of them own lower and 37.9% of them own large livestock holdings in terms of TLU. The household heads with lower livestock holding also sent children to school.

This result indicates that the not enrolled category household heads didn't send children for the probable reasons that they couldn't cover the costs of schooling. On the contrary, household heads with large livestock holding enrolled their children to school since they can cover the costs of schooling and didn't keep in home to work for generating income. Those household heads that enrolled their children despite their low livestock holding could be they generate income from other sources and favourable school, cultural and parental factors. The chi-square results showed livestock holding and enrolment situation have a significant relation, at 1% level. From this result, it can be concluded that livestock holding has a relationship with enrolment situation of the child. As explained above, the household heads with larger livestock holding are those who enroll their children to school since they can cover the different costs of schooling and living.

As (Hyde 1993 cited in Tassew, *et al*., 2006) explained that girls who come from economically advantaged families are more likely to enter and remain in schools than are girls from disadvantaged families.

The data in Table 35 below indicates the association of livestock holdings in terms of TLU with dropout situation of children and numbers under dropout do not indicate the number of children, but of household heads.

Table 35 Size of TLU category and dropout situation of children

S. N	Size of TLU category	Dropout of children		χ^2	Cramer's V-value
		Dropped out	%		
1	Low	32	68.1		
2	Medium	8	17		
3	Large	7	14.9		
	Total	47	100	13.244***	0.297

Source: Own survey results, 2014 ***- significant at 1% level

From the Table 35, the majority (68.1%) of the respondents was found with less TLU holding and hence the majority of the dropouts came from this group of families. This is probably because these families could not cover the costs of schooling.

The chi-square results showed livestock holding and dropout situation have a significant relation, at 1% level. From this result, it can be concluded that livestock holding has a relationship with dropout situation of the child. As explained above, the household heads with lower livestock holding are those who dropped out their children from school since they cannot cover the different costs of schooling and living.

Different studies done by researchers showed similar results in line with this study. According to Teshome (2002), in both Amhara and Oromia regions, the highest proportion of parents own between l-3 cattle. In Oromia, the population is closely involved in animal rearing and the social status of an individual is culturally measured by cattle ownership. Overall 60% of the families of dropouts own less than 3 cattle, again indicating that they belong to the poorer section of their communities. The finding of the present study is very much consistent with previous reports, which showed that most parents whose daughters dropped out of school have low income generating occupations.

Other research findings of Tassew *et al.* (2006), also stated that in the absence of a perfect market, land and livestock ownership can also have the opposite effect on child schooling and child labour, which is more likely happening in Ethiopia.

4.2.4 Social and cultural factors

4.2.4.1 Lack of personal safety to send daughters to school

The sampled household heads were asked to answer whether there had been lack of personal safety to send their daughters to school.

The data in Table 36 indicate lack of personal safety with the status of enrolment of female children. The figures in the Table do not show about children responses, but about the household heads'. Moreover, household heads responses refer only about the safety of their daughters and not of their boys.

Table 36 Lack of personal safety and enrolment of female children

S. No.	Lack of personal safety to send daughters to school	Enrollment of female children						χ^2 (C)	Cramer's V-value
		Not enrolled	%	Enrolled	%	Total	%		
1	No	8	38.1	53	64.6	61	59.2		
2	Yes	13	61.9	29	35.4	42	40.8		
	Total	21	100	82	100	103	100	3.839**	0.218

Source: Own survey result, 2014 **- significant at 5% level

Among the total respondents, 40.8% of them said that there was lack of safety to send daughters to school. Those respondents who felt " no lack of safety" were 64.6% (means good majority) were able to enroll their daughters to school. Good majority (61.9%) who felt " lack of safety" did not enroll children to school. The chi-square results showed that lack of personal safety to daughters and enrolment situation of children have significant relation, at 5% level.

This implies that household heads that felt lack of safety for their daughter did not enroll for the reasons that they could be harassed or abducted while traveling to school.

This finding is consistent with the studies of Emebet (2003) and Ammanuel (2002), which indicated that because of various socio-cultural reasons parents prefer their daughters being engaged in marriage than enrolled to school.

The data in Table 37 indicates the relation of the presence of lack of personal safety with that of dropout situation and the figures under dropout do not indicate children's figure, but of household heads. On top of this, household heads responses on lack of safety only refers to their daughters and not to their boys.

Table 37 Lack of personal safety and dropout of female children

S. No.	Lack of personal safety to send daughters to school	Dropout of children		χ^2 (C)	Cramer's V-value
		Dropped out	%		
1	No	14	29.8		
2	Yes	33	70.2		
	Total	47	100	0.039***	.273

Source: Own survey result, 2014 ***- significant at 1% level

From the respondents of the dropout category 70% of them who felt " lack of safety" dropped out of their school. Families when they feel there is poor safety for daughters they withdraw them from schools.

The chi-square results showed lack of personal safety for daughters and dropout situation of children have a significant relation with the dropout of female children, at 1% level. As explained earlier, lack of personal safety determine the decision taken by household heads to withdraw daughters from school either to prepare them for marriage or help their mothers in household chores.

According to a study by parental fear of teenage pregnancies related with sexual harassments limit girls access to as well as persistence in school since it causes parents to withdraw their

daughters from school when they reach the age of puberty and give them in marriage (Dolphyne, 1991; cited in Mauritius, 2003).

4.2.4.2 Presence of role models for girls

The data in Table 38 indicates that the presence of female role models in the area. It refers the responses given by the household heads about the presence of female role models for their girls and moreover the figures do not indicate that of children.

Table 38 Presence of female employees in the area and enrollment of female children

S. No	Presence of female employees	Enrollment of children						χ^2 (C)	Cramer's V-value
		Not enrolled	%	Enrolled	%	Total	%		
1	No	11	52.4	17	20.7	28	27.2		
2	Yes	10	47.6	65	79.3	75	72.8		
	Total	21	100	82	100	103	100	10.548***	0.279

Source: Own survey data, 2014 ***-significant at 1% level

As showed in Table 38 above, 52.4% of the non-enrolled category household heads didn't see any role model for their girls in their locality. On the other hand, larger majority (79.3%) of the enrolled category respondents indicated that they had known the presence of role models for their girls in their locality. With respect to the non-enrolled category, relatively larger proportion of the respondents didn't see role models in their area this probably be the reason for the more not-enrolled proportion. As the sex composition indicated in Table 40, from the total sampled children in the non-enrolled category the proportion of females that do not enroll to school were 57.1% and hence the absence of female role models discouraged the enrolment of girls. This could be related with the lower level of aspiration that household heads had because of absence of female role models in the area.

The chi-square results showed the significant relation of presence of role models with the enrolment of girls, at 1% level. As explained earlier, the presence of female role models

encourage household heads to enroll daughters so that they could aspire to get good jobs after completion of their schooling.

It appears that 62% of females in the Amhara Region know some girls who succeeded in their education, while this is true only among 22% of the respondents in Oromia (Teshome, 2003). Similar studies on the importance of the presence of role models for daughters' schooling has resulted consistent results with this study. Teshome's (2002) study on the importance of presence of role models supports our findings.

The data in Table 39 indicates presence of female role models and dropout situation of girls. The figures indicated are of household heads about their daughters' dropout situation.

Table 39 Presence of female employees in the area and dropout of female children

S. No	Presence of female employees	Dropout of children		χ^2	Cramer's V-value
		Dropped out	%		
1	No	21	44.7		
2	Yes	26	55.3		
	Total	47	100	3.731*	0.173

Source: Own survey data, 2014 *- significant at 10% level

As showed in Table 39 above**,** relatively larger (55.3%) of the respondents in the area know the presence of role models to their daughters. From the result, their presence didn't keep daughters in school till the last grade of primary school probably because of other parental, economic, social and cultural factors.

The chi-square result showed there is a significant relation of presence of female role model and dropout situation, at 10% level. This is to mean the presence of female role models in the area could reduce the likelihood of daughters dropout their schooling before the last grade.

The fact that the dropout level is lower in the Amhara area may have links with this finding. A study by WAD (2004) showed that when the number of female teachers increases, the number of dropouts of girls becomes lower on selected schools in Oromia.

Children were also asked if they have known any successful role models for girls in their communities. From further processing of data, 83% children respondents answered that they have seen female role models in their area. In addition to this they were asked to rate whether or not their presence implied presence of safety for daughters if sent to school as low, average and high. Good majority (79%) of the respondent children indicated that it had implied the presence of safety to keep daughters in school.

4.2.4.3 Level of aspiration

Household heads and children were asked to tell their responses on statements related to measure their level of aspiration on whether or not they had higher expectation of children to get job after completion of education, their children should learn more than what parents had, children should earn more than what parents could, and feelings on doubling their income and get rid of their present troubles. All these statements were summed to a total score of 9 and as shown in the Table 40.

Table 40 Household heads' response on their level of aspiration on children's education

S. No	Aspiration score	Frequency	Per cent
1	7.00	16	10.7
2	8.00	41	27.3
3	9.00	93	62.0
	Total	150	100

Source: Own survey result, 2014

Among the total respondents 89.3% of the respondents had better level of aspiration on children's education.

Children were asked to tell their level of aspiration whether or not they aspire to have job after they completed their education. The data in Table 41 indicates that whether or not children have higher aspiration after completion of their education.

Table 41 Aspiration of the child to get job after school completion and current enrolment status of the child.

S. No.	Higher expectation of the child to get job after completion of his/her school	Enrollment of children						χ^2 (C)	Cramer's V-value
		Not enrolled	%	Enrolled	%	Total	%		
1	No	13	61.9	12	14.6	25	24.3		
2	Yes	8	38.1	70	85.4	78	75.7		
	Total	21	100	82	100	103	100	49.975***	0.594

Source: Own survey result, 2014 ***- significant at 1% level

As the result showed in Table 41, the largest proportion (85.4%) of the enrolled children answered to have higher level of aspiration. The dropped outs said that they had lower level aspiration to get job after completion of their job. And 61.9% of the not enrolled groups of children responded as they had no expectation of their children's getting job after completion of education. This is probably because if household heads thought that there is no job after certain level education they look for the opportunity cost of sending them to school with sharing their burden to generate income.

The chi-square results obtained from cross tabulation of level of aspiration with enrolment resulted to be highly significant at 1% level. It tells as there is a strong relationship between the level of aspiration and enrolment situation of children.

The data in Table 42 indicates the child's expectation of getting job after completing their education. The figures under dropout indicate situation of child. The responses given were by children and not by household heads.

Table 42 Aspiration of the child to get job after school completion and current dropout status of the child.

S. No.	Higher expectation of the child to get job after completion of his/her school	Dropout of children		χ^2 (C)	Cramer's V-value
		Dropped out	%		
1	No	29	61.7		
2	Yes	18	38.3		
	Total	47	100	76.682***	.715

Source: Own survey result, 2014 ***- significant at 1% level

As the result showed in Table 42, the largest proportion (61.7%) of the dropped outs said that they had lower level aspiration to get job after completion of their job.

The influence of level of aspiration on children were clearly seen on children that didn't enroll that the majority or 61.9% of the children out of school responded that they had no aspiration to get job after schooling.

The data in Table 43 indicates the level of aspiration of children to get job after completion of education. It also shows the sex differences of the children with the expectation of the final rewards of education.

Table 43 Sex of the child and expectation of the child of getting job after completion of schooling

S. No.	Sex of the child	Higher expectation of the child to get job after completion of his/her school				Total
		No	%	Yes	%	
1	Male	16	30.2	37	69.8	53
2	Female	38	39.2	59	60.8	97
	Total	54		96		150

Source: Own survey result, 2014

As shown in the Table 43, from children who had lower level of aspiration 60.8% were girls that could be one of the reasons for girls to drop out of primary schools.

4.2.4.4 Social participation

Household heads were asked to tell whether or not they involve in social organizations like PA, Gote, cooperatives, and other forms community based organizations. They were also asked to tell their level of participation be it at membership, committee member and leadership positions and finally how frequent their level of participation was. The statements were totally scored out of 7 and the results are indicated in Table 44.

Table 44 Household heads responses on their social participation

S. No.	Social participation scores	Frequency	Per cent
1	1.00	2	1.3
2	4.00	54	36.0
3	5.00	52	34.7
4	6.00	39	26.0
5	7.00	3	2.0
	Total	150	100

Source: Own survey result, 2014

As showed in Table 44 that 62.7% of the total respondents scored five and above five, which tells that, the majority of the household heads had better social participation.

Membership and leadership in community organization assumes that farmers who have some position in PA and different cooperatives are more likely to be aware of new practices as they are easily exposed to information (Van de Ban, 1998). And hence these people most likely send their children to school and tend to maintain them till the last grade of primary schooling.

4.2.4.5 Cosmopoliteness

Household heads were asked to answer for statements used to capture whether or not they were cosmopolite or not. Hence they were asked statements about whether or not they used to go to towns, frequency of their visit and what had attracted them to send children to school.

The data in Table 45 indicates the level how household heads were cosmopolite and these scores do not indicate that of children's level of cosmopoliteness.

Table 45 Household heads' responses on their cosmopoliteness

S. No.	Cosmopoliteness scores	Frequency	Per cent
1	1 - 2	5	3.3
2	3 - 4	113	75.3
3	5 - 6	32	21.3
	Total	150	100.0

Source: Own survey result, 2007

As indicated in Table 45, the majority of the respondents got higher scores which means that they were visiting towns, even those who were 80Kms away from Sekota town.

On top of the above results, respondents were asked to tell during their visit to towns what had attracted their interest that encouraged them to send children to school. They were asked to rank among four choices such as children going to school with school uniforms, looking the government employees, looking higher educated officials and politicians and way of educated people expressing their ideas. All these data are processed and indicated in Table 46.

Table 46 Household heads' rating of situations that attracted their attention

S.No.	Hhh's rating	Children with school uniforms		Government employees		Higher educated officials and politicians		Way of educated people's idea expression	
		Frequency	Percent	Frequency	Per cent	Frequency	Per cent	Frequency	Per cent
1	None	11	7.3	5	3.3	5	3.3	5	3.3
2	Low	34	22.7	3	2.0	35	23.3	23	15.3
3	Average	30	20.0	29	19.3	38	25.3	43	28.7
4	High	75	50.0	113	75.3	72	48.0	79	52.7

Source: Own survey result, 2014

From the results showed in Table 46, among the choices that attracted households' interest to send their children to school were looking at government employees followed by way of educated people's idea expression, then followed by children wearing school uniforms.

4.2.4.6 Early marriage

Respondents were asked to rate whether the presence of early marriage is a hindering factor or not for daughters' enrolment and enhancing dropout situation.

Regarding enrolment the majority of the respondents or 68.3% said that early marriage had low influence to hinder enrolment of daughters. Only 23.8% of the never enrolled categories ranked early marriage to have high degree and 38.1% of the respondents in the same category ranked it had average degree of influence household heads not to send children to school.

The data in Table 47 below indicates that household heads rating about the extent of early marriage in hindering daughters from enrolling to schooling. It also showed the significant relation of early marriage with enrolment situation. The figures in enrolment do not indicate the number of children and moreover it is the household heads response about their daughters only.

Table 47 Household head's perception that early marriage hinders schooling by female students

S. No.	Hhh's rating	Enrollment of female children						χ^2	Cramer's V-value
		Not enrolled	%	Enrolled	%	Total	%		
1	Low	8	38.1	56	68.3	64	62.1		
2	Average	8	38.1	8	9.8	16	15.5		
3	High	5	23.8	18	21.9	23	22.4		
	Total	21	100	82	100	103	100	11.123***	.329

Source: own survey result, 2014 ***- significant at 1% level

As shown in Table 47, 68.3% of the respondents in enrolled category who answered as the extent of influence of early marriage to be low in hindering daughters schooling.

Among the non-enrolled category respondents, those who rated early marriage average and higher and the aggregate percentage (61.9%) of the total respondents thought that early marriage hinders daughters not to enroll to school.

The chi-square results showed that early marriage has a significant relation with enrolment situation of daughters, at 1% level. This is to mean early marriage determines the decision taken by household heads to enroll female children to school or not.

A study by Mulugeta and Amanuel (2000) indicated that, parents support early marriage due to fear of unwanted pregnancy and abduction which seem to have a great value. Therefore, he stated that early marriage hinders girls from going to school.

The data in Table 48 indicates the ratings of respondents that extent of early marriage to dropout situation of daughters. The numbers in the Table do not indicate numbers of children, but of the household heads and more over household heads responses refer only to daughters and not to boys.

Table 48 Household head's perception that early marriage hinders the completion of schooling by female students

S. No	Hhh's rating	Dropout of female children		χ^2	Cramer's V-value
		Dropped out	%		
1	Low	13	27.7		
2	Average	16	34		
3	High	18	38.3		
	Total	47	100	15.666***	0.323

Source: own survey result, 2014 ***- significant at 1% level

As results shown in the Table below 38.3% of the dropout respondents answered that early marriage hindered daughters schooling and had led them to drop. From the total dropout categories of the household head respondents, only 27.7% answered that early marriage had low degree of influence on daughters dropping out. The rest of the same categories rated early marriage as average degree of contribution for the dropping out of daughters.

Thus, the majority (who rated average and high were 72.3%) of household heads who pulled out their children from school responded the influence of early marriage in hindering completion of schooling.

The chi-square results showed that early marriage has a significant relation with dropout situation of daughters, at 1% level. As explained earlier, early marriage determines the decision taken by household heads to withdraw female children to school or not.

To see the root cause of early marriage in the study area both household heads and children were asked the same question to reason out early marriage in their locality. Similar responses were given and the reasons given by the household heads are as presented in the Table 49 below.

Table 49 Reasons for early marriage as given by household head

S. No.	Hhh's reasoning for early marriage	Frequency	Per cent
1	Daughters better fit to marriage than to education	6	4.0
2	Benefit of girls education is minimal	1	0.7
3	Hopping financial benefit obtained from her husband	24	16.0
4	For family pride	107	71.3
5	By their own interest	12	8.0
	Total	150	100.0

Source: Own survey result, 2014

As the results showed 71.3% of the respondents selected family pride as the major reason for early marriage and only 0.7% of the respondents denied the benefit of daughters schooling. There were also few respondents or 8% that daughters themselves decide to engage early marriage. From the results, household heads enforce daughters for early marriage for cases where there is lack of safety for daughters to be harassed or raped which could erode the value of each member of the family given by the society.

Past studies on early marriage also showed that it appears to be a significant reason for girls dropping out of school in Amhara. The fact that more female dropouts are married in Arnhara should be understood culturally since early marriage is commonly practiced in Amhara

Region. What is observed from findings is that almost one third of young female dropouts in the study are engaged, married or divorced (Teklehaimanot, 1999; cited in Mulugeta, 1998).

4.2.4.7 Other cultural constraints

The respondents and the children were asked to rate the cultural/ traditional factors that hinder enrolment and promote dropout of daughters.

The data in Table 50 below indicates that the different cultural factors and their relation with enrolment and dropout situation.

Table 50 Household heads' perception on different types of cultural/ traditional factors affecting the completion of schooling by female students.

SN	Cultural/ traditional factors	Hhh's rating	Enrollment of female children			Dropout of children
			Not enrolled	Enrolled	Total	Dropped out
1	Circumcision	Low	5	24	29	19
		Average	4	26	30	12
		High	12	32	44	16
2	Bride price	Low	5	21	26	25
		Average	6	30	36	14
		High	10	31	41	8
3	Pregnancy	Low	7	33	40	19
		Average	1	17	18	11
		High	13	32	45	17
4	Risk of abduction	Low	10	47	57	25
		Average	3	24	27	8
		High	8	11	19	14
5	Harassment	Low	10	53	63	22
		Average	3	22	25	7
		High	8	7	15	18

Source: Own survey results, 2014

As shown in Table 50, among the cultural factors those rated to have high influence on enrolment situation of female children were pregnancy, circumcision, bride price harassment

and risk of abduction in decreasing order of influences. With regard to not-enrolled children group, fear of pregnancy followed by circumcision and bride price in decreasing order of influence on enrolment situation of female children.

The data in Table 51 indicates the cultural factors and enrolment situation of female children. The figures indicated do not refer to female children rather to household heads discussing about the ratings of the cultural factors on female children's enrolment.

Table 51 Cultural and traditional factors and enrolment situation of female children

S. No.	Cultural factors	Hhh's rating	Enrollment of female children: Not enrolled	%	Enrolled	%	Total	%	χ^2	Cramer's V-value
1	Circumcision	Low	5	23.8	24	29.3	48	32		
		Average	4	19.1	26	31.7	42	28		
		High	12	57.1	32	39	60	40		
		Total	21	100	82	100	150	100	1.353(NS)	.095
2	Bride price	Low	5	23.8	21	25.6	41	27.3		
		Average	6	28.6	30	36.6	50	33.3		
		High	10	47.6	31	37.8	59	39.4		
		Total	21	100	82	100	150	100	0.878(NS)	.077
3	Pregnancy	Low	7	33.3	33	40.3	59	39.4		
		Average	1	4.8	17	20.7	29	19.3		
		High	13	61.9	32	39	62	41.3		
		Total	21	100	82	100	150	100	0.454(NS)	.055
4	Risk of abduction	Low	10	47.6	47	57.3	82	54.7		
		Average	3	14.3	24	29.3	35	23.3		
		High	8	38.1	11	13.4	33	22		
		Total	21	100	82	100	150	100	9.023**	.245
5	Harassment	Low	10	47.6	53	64.6	85	56.7		
		Average	3	14.3	22	26.8	32	21.3		
		High	8	38.1	7	8.6	33	22		
		Total	21	100	82	100	150	100	19.491***	0.360

Source: Own survey result, 2014 **- significant at 5% level, ***- significant at 1%level, (NS)- not significant

As showed in the Table 51 above, considering household heads that rated cultural and traditional factors high were compared among the different factors that could have relation with enrolment. Hence, from the total respondents of the enrolled category higher score were

given to circumcision and pregnancy (both 39%) and bride price (37.8%) were the second higher score. From this result, it could judged that even though there were higher risks of pregnancy, higher status of circumcision and bride price female children were enrolled to school probably because of absence of economic, policy and school factors constraining female children's enrolment to school. The least score of the higher rating given by enrolled category respondents were to harassment (8.6%) and risk of abduction (13.4%) which means that these two factors do not do not constrain female children from being enrolled to primary schools and that why better enrolment situation was observed.

On the contrary, for the enrolled category harassment and risk of abduction scored larger proportion of higher ratings i.e. 38.1% for both cases that is to mean these two factors hindered female children from coming to school.

The chi-square results of circumcision, bride price and pregnancy showed to have no significant relation with enrolment situation of children. Inconsistent to the result of the present study, however, there is strong belief that circumcision, bride price and pregnancy have a relationship to the enrolment situation of female children.

On the other hand, harassment and risk of abduction have a significant relation with enrolment of children at 1% and 5% significant level. As explained earlier, harassment and risk of abduction determine the decision taken by household heads to enroll female children to school or not.

Similar studies showed that cultural factors affect daughters' enrolment. According to Teshome (2003), circumcision is another ritual that creates similar dilemmas to those who pass through initiation ceremonies. Circumcised girls not only perceive themselves as adults, but also become negative influences on their uncircumcised peers.

The data in Table 52 indicates cultural and traditional factors and dropout situation of children. The figures indicated refer to the household heads and not to female children. The household heads rated the different cultural and traditional factors that could have relations with dropout situation of their female children.

Table 52 Cultural and traditional factors and dropout situation of girls.

S. No	Cultural factors	Hhh's rating	Dropout of female children		χ^2	Cramer's V-value
			Dropped out	%		
1	Circumcision	Low	19	40.4		
		Average	12	25.5		
		High	16	34.1		
		Total	47	100	2.275(NS)	0.123
2	Bride price	Low	15	31.9		
		Average	14	29.8		
		High	18	38.3		
		Total	47	100	0.803(NS)	.073
3	Pregnancy	Low	19	40.4		
		Average	11	23.4		
		High	17	36.2		
		Total	47	100	1.049(NS)	.084
4	Risk of abduction	Low	25	53.2		
		Average	8	17		
		High	14	29.8		
		Total	47	100	3.083(NS)	.143
5	Harassment	Low	22	46.8		
		Average	7	14.9		
		High	18	38.3		
		Total	47	100	10.768***	.268

Source: Own survey result, 2014 ***- significant at 1% level, (NS) – not significant

The results in Table 52 showed that harassment and bride price scored by household heads given higher rating (38.3%) and pregnancy, circumcision and risk of abduction rated higher as 36.2%, 34.1% and 29.8 respectively.

The chi-square results showed that circumcision, bride price, pregnancy and risk of abduction have no significant relation with the dropout situation of children.

On the contrary, the chi-square result of showed that harassment has a significant relation with the dropout situation of children, at 1% level. As discussed earlier, harassment determines the decision of household heads to withdraw their daughters from schools. The presence of risk of

their daughters being harassed by some one while traveling to school or around school enforce families to decide to dropout their daughters to engage early marriage.

Similar studies showed that cultural factors affect daughters' enrolment and finally become reason for dropping from schools.

Cultural beliefs, customs, practices, pregnancy, insecurity and other traditions play a significant role in decisions to withdraw girls from school and their own decisions to drop-out of school (MOE, 2004).

4.2.5 Child based factors

4.2.5.1 Age of the child

The data in Table 53 indicates the age of the child and current status of enrolment and dropout of children. It shows the age categories where proportions of enrolled, not enrolled and dropped out primary school aged children are indicated.

Table 53 Age of the child and enrolment and dropout situation

S. N.	Age of the child	Current status of child's enrollment and dropout						Total	%
		Dropped	%	Enrolled	%	Not Enrolled	%		
1	7-10 years	2	4.3	2	2.4	0	0	4	2.7
2	11-14 years	6	12.8	15	18.3	4	19	25	16.7
3	15-18 years	12	25.5	54	65.9	12	57.2	78	52
4	19-22 years	27	57.4	11	13.4	5	23.8	43	28.6
	Total (N)	47	100	82	100	21	100	150	100

Source: Survey result, 2014

As shown in the Table 53, larger proportion of dropped out children was from the age category of 19-22. This is probably because the age group is economically active and supports all the household and farming activities.

Results of studies by (Tassew *et al*, 2006) indicated that the age of the child had a positive and significant impact on child schooling and work, indicating that older children were more likely to combine work with schooling and were involved in work only relative to the reference group (schooling only).

4.2.5.2 Age grade distortion

On top of this, children were asked the age at which they first enroll to school and from this we obtained age-grade distortion and it is indicated in Table 54. Age grade distortion dose not talk about those children not enrolled to school and hence their number (21) is excluded from the Table.

Table 54 Age grade distortions for dropped out and enrolled children

S. No	Age grade distortion	Current status of child's enrollment				Total
		Dropped	%	Enrolled	%	
1	Not enrolled at appropriate age	19	40.4	26	31.7	45
2	Enrolled at appropriate age	28	59.6	56	68.3	84
	Total (N)	47	100	82	100	129

Source: Own survey result, 2007

As indicated in the Table 54, the result showed that 31.7% of the enrolled children did not enroll at appropriate age and 40.4% of the dropped out of children were not enrolled at their appropriate school age. This could be because children faced poorly facilitated school environment and learn together with very young children and not feeling comfortable with the treatment of the teachers. In addition to this, since they started helping families in farming and household chores, they couldn't run both tasks simultaneously. The other reason can be rural

children are malnourished and do not attain the appropriate height and strength to enroll to farther schools at their proper school age.

The data in Table 55 indicates whether school aged children in school enrolled at their appropriate age or not. The data do not talk about those children who not enrolled to school and moreover do not talk about household heads.

Table 55 Age grade distortion and current status of children's enrollment

S. No	Age grade distortion	Enrollment of children		χ^2	Cramer's V-value
		Enrolled	%		
1	Not enrolled at appropriate age	29	35.4		
2	Enrolled at appropriate age	53	64.6		
	Total	82	100	3.203*	0.174

Source: Own survey data, 2014 *-significant at 10% level

As shown in Table 55 above, good majority (64.6%) of children enrolled to school at appropriate age. For the children that enrolled at appropriate age, the reason could be the presence of school in their area and also household heads' willingness to enroll children and moreover the policy attention given to provide primary education for all school aged children.

On the contrary, 35.4% of the sampled children enrolled at age delayed than the appropriate schooling age because of the school distance that the weak children can't walk for hours. Families wait till their kids become stronger to walk to school even though their age is older than the age appropriate to first grade in primary schools.

The chi-square results indicated that there is a significant relation between age grade distortion and enrolment, at 10% level. From this result, it can be concluded that age grade distortion has a relationship with enrolment situation of the child and good majority of children enrolled to school probably because of the nearness of the school and better level of awareness about the

rewards of education. This result is consistent with Njau and Wamahiu, 1998; cited in Mulugeta, 1999.

The data in Table 56 indicates, the age grade distortion of the children and the dropout situation. All the data included talk about children and not household heads.

Table 56 Age grade distortion and current dropout status of children

S. No	Age grade distortion	Dropout of children		χ^2	Cramer's V-value
		Dropped out	%		
1	Not enrolled at appropriate age	28	59.6		
2	Enrolled at appropriate age	19	40.4		
	Total	47	100	6.152**	0.235

Source: Own survey data, 2014 **- significant at less than 5% level

As indicated in Table 56 above, 59.6% of he dropped out children were not enrolled at their appropriate school age and finally dropped out of school. This could be because, when children enrolled to school late they sit together with kids of age enrolled at appropriate age and this reduces their comfort to stay in school. Especially for girls, since they reach puberty at lower grades and with families fear of their daughters being harassed or raped they enforced them to dropout of their earlier primary schooling. 40.4% of the girls that enrolled at appropriate age dropped out of schools for the probable reasons related to factors of school, economic, cultural and parental.

The chi-square results showed that there is a significant relation of the variable with dropout situation of children, at 5% level. From this result it can be concluded that age grade distortion has a relationship with dropout situation of the child and good majority of children dropped out of school who enrolled late than the appropriate year probably because of the distance of the school to travel by kids and lower level of awareness about the rewards of education.

Similar results of studies show age grade distortion affects daughters more. As referred in Mulugeta (1999), in many countries, a relationship has been found between late entry of girls to schools, frequent absenteeism and finally dropping out of school. Girls may start school at the age of 10, since the distance from school may be too great to allow small children without older siblings to walk on their own. At the age of 11 or 12 they are forced to leave school as their parents may be afraid of sexual harassment and abduction. Schoolgirl pregnancy and the incidence of female dropout are closely related through out Africa (Njau and Wamahiu, 1998 cited in Mulugeta, 1999).

4.2.5.3 Sex of the child

The data in Table 57 indicates that sex of the child with enrolment and dropout situation of children. All the figures indicated are of children.

Table 57 Sex of the child and status of enrolment and dropout

S. NO.	Sex of the child	Current status of children's enrollment and dropout						Total
		Dropped	%	Enrolled	%	Never enrolled	%	
1	Female	35	74.5	49	59.8	13	61.9	97
2	Male	12	25.5	33	40.2	8	38.1	53
	Total	47	100	82	100	21	100	150

Source: Own survey result, 2014

From the results of Table 57 above, the majority (74.5%) of dropouts were females. Even though the disparity between male and female was not too much like that dropout situation, the proportion of females enrolled to school was better than male counterparts.

Among the female dropouts, 36.2% of them were aged between 18 -22 years. As the age grade distortion for females indicated above is higher and most girls reach puberty at lower grades and this may lead them to dropout of their school.

The data in Table 58 indicates, sex of the child with the enrolment and dropout situation. Figures indicated are of enrolled, not-enrolled and dropped out children together with the relation between sex of the child and enrolment and dropout situation.

Table 58 Sex of the child and current status of enrolment

S. No	Sex of the child	Enrollment of children						χ^2 (C)	Cramer's V-value
		Not enrolled	%	Enrolled	%	Total	%		
1	Female	12	57.1	50	61	62	60.2		
2	Male	9	42.9	32	39	41	39.8		
	Total	21	100	82	100	103	100	8.518***	0.253

Source: Own survey result, 2014 ***- significant at 1% probability level

From the results shown in Table 58 above, 57.1% of the enrolled category children were female. Among the total enrolled children, good majority (60.2%) of them were girls and 39.8% were boys.

The probable reason for larger number of not enrolled females could be the lower level of awareness on importance of female education and the cultural barriers on girls and the poor access of schools in nearby villages.

On contrary to this, good majority of females (60.2%) enrolled to school because of the availability of primary schools in the locality and more over the attention given by PA and school officials involved in a continuous discussion and collaborative work with community elders to reduce the cultural barriers and motivating families to enroll girls to schools. The chi-square results showed that sex of the child has a significant relation with enrolment of children, at 1% level.

Contrary to this study, Yelfign (1999) indicated, the reasons for smaller number of girls than boys in school as lack of accommodation and financial support, marriage, fear of abduction and harassment.

The data in Table 59 indicates that sex of the child with dropout situation. The figures refer only to children dropped out of school and relation between sex of the child and dropout situation is indicated.

Table 59 Sex of the child and current status of dropout

S. No	Sex of the child	Dropout of children		χ^2	Cramer's V-value
		Dropped out	%		
1	Female	35	74.5		
2	Male	12	25.5		
	Total	47	100	9.930***	0 .257

Source: Own survey result, 2014 ***- significant at 1% probability level

As shown in Table 59 above, the larger proportion (74.5%) of the dropped out children were females and 25.5% were boys.

The reason for the larger dropout proportion of females could be longer distances to school and personal safety problems and more over the decision of household heads to enforce them to early marriage. The other reason could be the age grade distortion of females that they reach puberty at very lower grade levels where families attach less value to females long-term education benefit. The chi-square results showed significance relation between sex of the child and dropout situation, at 1% level.

Similar studies carried out earlier in Amhara and Oromia regions also revealed this fact. According to Teshome (2002), the age of the dropouts was higher than the age limits for primary education. Overall results indicate that the age of the highest proportion or 77% of female dropouts range between 13-19 years in both regions. It is apparent that most girls drop out of school after the age of 13. This age coincides with both the onset of puberty and with the increased demand for the labour of older female children. Thus, policies which enable all children, and particularly girls, to start primary school at a younger age, may allow a greater percentage to complete primary education.

4.2.5.4. Health status of the child

The data in Table 60 indicates that the health status of interviewed children in the sampled household heads. The figures refer to the children and not to the household heads.

Table 60 Health status of the children

S.N	Health status of the child	Frequency	Per cent
1	Disabled	6	4.0
2	Not disabled	144	96.0
	Total	150	100.0

Source: Own survey result, 2014

As showed in the Table 60 above, among the children in the sampled households only 4% of them were disabled either to enroll or to continue their education. The majority (96%) of the total children interviewed were healthy and able to enroll and continue till the last grades of the primary schooling.

This indicates that health problems related to physical damage were very minimal to severely affect the overall enrolment and dropout situation in the study area.

4.2.5.5 Relation of the child to the head and spouse

The data in Table 61 indicates, the relation of the child with either of the head of the household or to both the head of the household and spouse. The figures indicated refer to the interviewed children in the sampled households, and do not refer to the household heads.

Table 61 Relation of the child with the household head and spouse

S. No	Relation of the child	Frequency	Per cent
1	Only related to either of them	39	26.0
2	Child of both parents	111	74.0
	Total	150	100.0

Source: Own survey result, 2014

The data results from Table 61 showed that good majority (74%) of the interviewed children in the sampled households were mutual child to both the household head and spouse. Where as 26% of the interviewed children in the selected household heads were only related to either of them.

Children of both household head and spouse could get advantage over children that related to either of the two in getting the chance to enroll and continue till the last grade of primary education. This could be because household heads could not discriminate among the two except for the discrimination that brought about economic, social, cultural and parental factors.

The data in Table 62 indicates the relation of the child to the head of the household and spouse and enrolment situation of children. The figures in the indicated refer to the interviewed children in the sampled households and not to the household heads themselves.

Table 62 Relation of the child to the head and spouse and current enrolment situation of the child

S. N	Relation of the child to the head and spouse	Enrollment of children				χ^2 (C)	Cramer's V-value
		Not enrolled	%	Enrolled	%		
1	Only related to either of them	4	19	21	25.6		
2	Child of both parents	17	81	61	74.4		
	Total	21	100	82	100	.884 (NS)	0.077

Source: Own survey result, 2014 (NS)- not significant

As indicated in the Table 62 above, among the non-enrolled category larger proportion (81%) were mutual child to both the household head and spouse. With regard to the enrolled category, 74.4% of the enrolled children were mutual child to both.

This indicates that since the good majority of the children were mutual child to both the household heads and spouses, the statuses of enrolling and not enrolling were not influenced

by being mutual child to both, rather by other factors discussed in different parts of the text of this study.

The chi-square results showed that the relation of the child to household head and spouse has no significant relation with the enrolment situation of the child. Inconsistent to the result of this study, however, there is strong justification in theory that relation of the child to the household head and spouse has a relationship to the enrolment situation of children.

Similar studies revealed that the importance of parental support for education is very crucial girls were disadvantaged if they lived with a guardian or foster parents. But their enrollment rates are higher if both parents live together, since unstable families discriminated against girls (Okojie, 2001).

The data in Table 63 indicates that the relation of the child to household head and spouse and the dropout situation of the children. The figures refer to the interviewed children in the sampled household heads, and not to household heads themselves.

Table 63 Relation of the child to the head and spouse and current dropout situation of the child

S. No	Relation of the child to the head and spouse	Dropout of children		χ^2	Cramer's V-value
		Dropped out	%		
1	Only related to either of them	14	29.8		
2	Mutual child	33	70.2		
	Total	47	100	0.884 (NS)	0.077

Source: Own survey result, 2014 (NS)- not significant

As showed in Table 63 above, 70.2% of the children in the dropped out category were child to both household head and spouse. 29.8% of the children in the dropout category were only related to either the household head or spouse.

This implies that, even though being a child to either of the household head or the spouse has constrained some children to dropout of their schooling, the good majority of children were

not influenced and hence the reasons for their dropping out of school could be economical, social, school, parental and cultural and/or traditional.

The chi-square results showed that relation of the child to the household head and spouse has no significant relation with the dropout situation of the child. Inconsistent to the result of this study, however, there is strong justification in theory that relation of the child to the household head and spouse has a relationship to the dropout situation of children.

Similar studies by Mulugeta and Ammanuel (2002) stated that mutual children have more chance of school remaining in school up to completion of primary schooling.

4.2.5.6 Marital status of child

An item in the children's interview schedule asked respondents to check one of the three alternatives about their marital status. The data in Table 64 indicates that current marital status of the interviewed children in the sampled household heads. The figures refer to the children interviewed and not to the household heads.

Table 64 Current marital status of the child

S.No	Marital status of the child	Frequency	Per cent
1	Single	136	90.7
2	Married	13	8.7
3	Divorced	1	0.7
	Total	150	100.0

Source: Own survey result, 2014

As showed in Table 64 above, the majority of the children (90.7%) were single and 8.7% were married and only 0.7% was divorced.

From a similar study by Teshome (2003) stated that 47% of the dropouts in the Amhara region and 88% in Oromia were single.

The data in Table 65 indicates the marital status of children and enrolment of children. The figures indicated talk about the marital status of the not-enrolled and enrolled children, and not household heads.

Table 65 Current marital status of the child and enrolment situation

S. No.	Marital status of the child	Enrolment of children				Total	%	χ^2	Cramer's V-Value
		Not enrolled	%	Enrolled	%				
1	Single	20	95.2	77	93.9	97	94.2		
2	Married	1	4.8	5	6.1	6	5.8		
3	Divorced	0	0	0	0	0	0		
	Total	21	100	82	100	103	100	5.738(NS)	0.138

Source: Own survey result, 2014 (NS) – not significant

As showed in Table 65 above, 95.2% of the not-enrolled children and 93.9% of the enrolled children were single. Very few proportion of children in both not enrolled and enrolled category were married and no child recorded that divorced in both categories.

The interesting observed in this study was that few proportion (6.1%) of enrolled children was married that marriage could not influence them from being in school.

The chi-square results showed that current marital status of children and enrolment situation has no significant relation. Inconsistent to the result of this study, however, there is strong justification in theory that marital status of the child has a relationship to the enrolment situation of children.

The data in Table 66 indicates the current marital status of the child with dropout situation. The figures indicated refer to children and not to household heads.

Table 66 Current marital status of the child and dropout situation

S. No.	Marital status of the child	Dropout of children		χ^2	Cramer's V-value
		Dropped	%		
1	Single	39	83		
2	Married	7	14.9		
3	Divorced	1	2.1		
	Total	47	100	5.738(NS)	0.138

Source: Own survey result, 2014 (NS) – not significant

The results of Table 66 indicates that 83% of the dropped out children were found to be single, 14.9% of them married and only 2.1% were divorced.

This implies that good majority of dropped out children were not married probably because they were preparing for arranged marriage or because of reasons connected to economic, parental, cultural and/or traditional and school factors.

The chi-square results showed that current marital status and dropout situation of children are not related significantly. Inconsistent to the result of this study, however, there is strong justification in theory that marital status of the child has a relationship to the dropout situation of children.

This study is not consistent with the results of the study by Teshome 2003, results that marriage appears to be a significant reason for girls dropping out of school in Amhara. The fact that more female dropouts are married in Arnhara than in Oromia should be understood culturally since early marriage is commonly practiced in the Amhara Region.

4.3 Descriptive statistics of continuous variables

4.3.1 Mean distribution of all selected continuous variables.

The data in Table 67 below indicates, the mean distribution of continuous variables and the enrolment and dropout situation of children.

Table 67 Mean distribution of continuous variables under discussion

S. NO.	Variables	Total sample	Enrolment		Total Sample	Dropout of children	
			(1) Enrolled	(2) Not enrolled		(1) Dropped out	(2) Not dropped out
1	Agehhh Mean	45.8058	45.5366	46.8571	46.3800	47.6383	45.8058
2	Esdsitrq Mean	2.85	2.66	3.62	2.95	3.17	2.85
3	Ntchdhhh Mean	3.7379	3.5366	4.5238	3.7867	3.8936	3.7379
4	Hhhatted Mean	15.6990	15.9634	14.6667	15.6990	13.6383	15.6990
5	Hhhatfed Mean	51.9709	52.7805	48.8095	50.6933	47.8936	51.9709
6	Lvaspced Mean	8.6311	8.7317	8.2381	8.5133	8.2553	8.6311
7	Soclprtn Mean	5.1165	5.2195	4.7143	4.8867	4.3830	5.1165
8	Cosmpltn Mean	4.5437	4.6585	4.0952	4.3267	3.8511	4.5437
9	Szffmlnd Mean	1.0607	1.0701	1.0238	1.0600	1.0585	1.0607
10	SzlvTLU Mean	5.4207	6.4102	1.5567	4.3731	2.0772	5.4207

Source: Own survey result, 2014

As shown in Table 67 the results of the means and standard deviations of the listed continuous variables were made to relate with the dependent variables, i.e. enrolment and dropout situation of primary schools.

Agehhh- is the age of the household head – the mean value of Agehhh for the enrolled category obtained is less than that of the non-enrolled category. This implies that the older the age of the household head the less likely children enroll to primary school. In addition to this, the mean value of Agehhh for the dropped out category is greater than the not dropped that implies whenever the age of the household heads is older they more likely drop their children out of school.

Esdsitrq- is the estimated distance for children to reach school – the mean value of Esdsitrq for the enrolled category obtained is less than the not-enrolled category. This implies that the farther the school distance that the child needs to travel longer which the household heads less likely enroll children out of school for the probable reasons that they lack strength to walk longer distances and daughters might be harassed or abducted. In addition to this, the mean value of Esdsitrq for the dropout category is greater than the not-dropped out category that implies if the school distance is greater household heads more likely dropout their children from school probably because they need them to combine schooling with labour and fear of harassment and abduction for the case of daughters.

Ntchdhh- is number of total children in the household - the mean value of Ntchdhh for the enrolled category obtained is less than that of the non-enrolled category. This implies that the larger the number of total children in the household the lower likelihood of children to enroll. In addition to this, the mean value of Ntchdhh for the dropout category is greater than that of the not-dropped out category that implies that whenever large number of children are in the household the possibility of them to dropout of their schooling will be higher.

Hhhatted - is household heads' attitude towards education – the mean value for this variable for the enrolled category is greater than the non-enrolled category that implies as the households attitude towards education increases the likelihood of children to enroll to school

will increase. Concerning the dropouts' category the mean value for the same variable is lower than the non-dropped category that implies household heads with relatively lower attitude towards education most likely withdraw their children from their primary schooling.

Hhhatfed – is household heads' attitude towards female education – the mean value for the enrolled category is greater than that of the non- enrolled ones which implies household heads with favorable attitude towards female education will send their daughter to school. Regarding the dropout of children the mean value is lower for the dropout category than the not –dropped category which implies that household heads with lower attitude towards female education will pull out their daughters from primary schools.

Lvaspced – is level of aspiration of household heads on children's education – the mean value of the enrolled category is higher than the non-enrolled category that implies those household heads in this study with higher level of aspiration had sent their children to school where as those household heads of the dropout category with relatively lower level of aspiration than the non-dropped categories had pulled their children out of primary schools.

Soclprtn – is social participation of the household heads – the mean value of the variable for the enrolled category is greater than that of the non-enrolled category which implied those household heads with higher social participation has sent their children to school than those with lower mean value of the stated variable. With regard to dropout situation of the children, household heads from the dropout category had lower social participation and hence they had pulled their children out of school than the non- dropouts who had better mean value of the variable under discussion.

Cosmpltn – is cosmopoliteness of the household head – the mean value of the variable for the enrolled category is greater than that of the non-enrolled category which implies from household heads with better nature of cosmopoliteness relatively large number of children enrolled to school. On the contrary, the mean value of the variable under dropout is lower that implies children coming from household heads with poor nature of cosmopoliteness dropped out of their school.

Szffmlnd – is size of farmland owned by the household – The mean value of the variable for the enrolled category is greater than the non-enrolled category. Hence, those families with relatively better land holding size had sent their children to school. On the contrary, those household heads with relatively lower mean value of the variable had pulled out their children before they completed their primary education.

SzlvTLU – is size of livestock converted in terms of TLU – the mean value of variable for the enrolled category is much greater than the non-enrolled category which implies that household heads with larger livestock holding had sent their children to school. On the contrary, the mean value for the dropout category is much lower that household heads didn't let their children to complete their primary education. This greater variation in the mean under enrolled and dropout categories are because of the livestock holding is the major source of income in the study area.

The continuous variables discussed and ran under independent t-test were age of the household head, estimated distance to reach school, number of total children in the household, household head's attitude towards education with statements measured out of total score of 20, household head's attitude towards female education with statements measured out of total score of 60, level of aspiration of household head on children education with statements measured out of total score of 9, social participation of the household head with statements measured out of total score of 7, cosmopolitness of the household head with statements measured out of total score of 6, size of arable farm land ownership (ha), and size of livestock (TLU).

4.3.2 Independent sample t –test of continuous variables

The data in Table 68 indicates, results of enrolment and dropout when the continuous variables analysed by independent t- test (t-value) and Pearson Correlation results (r-value) and also significance of those continuous variables with the dependent variables.

Table 68 Taken from independent sample t- test and r - value from Pearson correlation

SN	Variables	Enrolment		Dropout	
		t- value	r-value	t-value	r-value
1	Agehhh	.478	-.047	-.927	.076
2	Esdsitrq	5.586***	-.376(**)	-1.810*	.147
3	Ntchdhhh	1.947*	-0.253**	-.578	0.047
4	Hhhatted	-2.524**	0.244*	5.321***	-0.401**
5	Hhhatfed	-3.582***	0.336**	4.675***	-0.359**
6	Lvaspced	-2.616**	0.336**	2.898**	-0.256**
7	Soclprtn	-2.234**	0.217*	4.673***	-0.359**
8	Cosmpltn	-3.599***	0.218*	4.427***	-0.314**
9	Szffmlnd	-0.383	0.038	0.026	-0.002
10	SzlvTLU	-3.918***	0.363**	4.727***	-0.308**

Source: Own survey result, 2014

*** Significant at 1%, ** Significant at 5%, * Significant at 10%

As shown in Table 68, the t-test results indicated that Agehhh (age of the household head) is not significant under both enrolment and dropout, Ntchdhhh (number of total children in the household) is not significant under the dropout category and the variable Szffmlnd (size of farm land owned by the household head) under both enrolment and dropout categories is not significant which implies that there is no significant difference between the two group means.

Concerning the other seven variables all are significant indicating that there is a significant difference between the two group means under each variable discussed.

To see the relationship and linear association of the continuous variables with the dependent variables, Pearson correlation was used. From the results (r-value) as indicated on Table 70

(Ntchdhhh) total number of children in the household on enrolment, (Agehhh) age of household head, (Esdsitrq) estimated distance to reach school, (Hhhatted) household heads attitude towards education,(Hhhatfed) household heads attitude towards female education, (Lvaspced) level of aspiration, (Soclprtn) social participation, (Cosmpltn) cosmopoliteness, (Szffmlnd) size of farm land, and (SzlivTLU) size of livestock in TLU variables have a negative sign of the correlation coefficient with the dependent variable 'dropout' which indicates the direction of the relationship is negative. In this study, this result means that an increase in the variables situation will lead to a decreasing situation to the dropping out of children in school, and remaining in the school to continue their studies.

Total number of children has a positive but non-significant relation with dropout of children. This means that as the number of children in the household increases, the number of children dropping out of school also increases.

All the above variables except number of total children have a positive relationship with the dependent variable enrolment. This is to mean that an improvement in the stated variables will automatically improve the enrolment situation of children under primary schools. When the number of total children in the household increases, the enrolment rate would decrease, as shown by the results.

As shown in Table 70 above, the absolute value of the largest Pearson correlation value, i.e. the value (Hhhatted = 0.401) attached to the household attitude towards education under dropout situation has a strong and inverse relationship with dropout trend of children.

4.4 Econometric Results for the Binary Logistic Regression Model

Under this section important household socio- economic, cultural, school and parental factors which were hypothesized to influence household heads' decision on sending children to school or dropping them out of school were identified and analyzed. The tool of analysis as mentioned earlier used was binary logit model.

However, before conducting econometric analysis it was necessary to check whether there is multicollinearity among the continuous explanatory variables and verify the degree of association among dummy and discrete explanatory variables. Otherwise, the parameter estimate will be seriously affected by the existence of multicollinarity among variables.

There are two measures that are often suggested to test the existence of multicolinearity. These are: Variance Inflation Factor (VIF) for association among the continuous explanatory variables and Contingency Coefficients for dummy variables. VIF shows how the variance of an estimator is inflated by the presence of multicolinearity (Gujarati, 2003).

The larger is the value of VIF the more troublesome is the multicollinearity or collinear is the variable. If the VIF of a variable exceeds 10 that variable is said to be highly collinear. To avoid serious problems of multicollinearity, it is quite essential to omit the variable with value 10 and more from the logit analysis (Gujarati, 2003). Thus, the variance inflation factor (VIF) was employed to test the degree of multicollinearity among the continuous variables.

The data in Table 69 indicates the VIF results of the multicollinearity tests of the continuous variables with enrolment and dropout situations.

Table 69 Variable Inflation Factor for the continuous explanatory variables

S.No.	Variables	Collinearity Statistics			
		Enrollment of children		Dropout of children	
		Tolerance	VIF	Tolerance	VIF
1	Agehhh	.921	1.086	.935	1.070
2	Esdsitrq	.837	1.194	.876	1.141
3	Ntchdhhh	.742	1.347	.761	1.313
4	Hhhatted	.869	1.150	.847	1.180
5	Hhhatfed	.799	1.251	.776	1.288
6	Lvaspced	.792	1.263	.762	1.312
7	Soclprtn	.853	1.173	.779	1.284
8	Cosmpltn	.764	1.309	.767	1.304
9	Szffmlnd	.867	1.153	.860	1.162
10	SzlvTLU	.759	1.318	.719	1.390

Source: Own survey result, 2014

As shown above in Table 69, the values of the VIF for eight continuous variables were found to be small (i.e. VIF values less than 10) indicating the data has no serious problem of multicollinearity. As a result, all the eight continuous explanatory variables were retained and entered into the binary logistic regression analysis.

Similarly, the Contingency Coefficient, which measures the association between various discrete variables based on the Chi-square, were computed in order to check the degree of association among the discrete explanatory variables or the existence of multicolinearity problem and hence indicated in Table 70 below.

Table 70 Contingency Coefficients for dummy and categorized variables

	Variables	1	2	3	4	5	6	7	8	9	10
1.	Edulhhh	1									
2	Edulsp	.509	1								
3	Birtofch	.138	.279	1							
4	Extgctss	.138	.199	.069	1						
5	Altlbupk	.207	.100	.099	.129	1					
6	Harsmtr	.181	.154	.105	.217	.162	1				
7	Lakprsft	.095	.142	.013	.102	.160	.121	1			
8	Prcefmen	.141	.133	.091	.148	.092	.172	.261	1		
9	Occofhhh	.307	.684	.285	.182	.083	.242	.179	.140	1	
10	Erlymrgr	.097	.208	.125	.295	.093	.088	.182	.054	.216	1

Source: Own survey, 2014

The decision rule for contingency coefficients states that when its value approaches 1, there is a problem of association between the discrete variables, i.e., the values of contingency coefficients ranges between 0 and 1, with zero indicating no association between the variables and the values close to 1, indicating a high degree of association (Tesfaye, 2006). As Wegayehu (2006) stated in his thesis, according to Healy (1984) contingency coefficient is a chi-square based measure of association where a value 0.75 or above indicates a stronger relationship between explanatory variables.

The variables to be tested for the multicolliniarity effects are Edulhhh- education level of the household head, Edulsp- education level of spouse, Birtofch- birth order of the child, Extgctss- perceived existing costs of schooling, Altlbupk- alternative labour sources at peak times, Harsmtr- sexual harassment, Lakprsft- lack of personal safety for daughters, Prcefmen- presence of female GO and NGO workers, Occofhhh -occupation of household heads and Erlymrgr- Early marriage.

With the purpose of showing the general feature of the variables (past studies showed these variables to be relatively important in determining primary schooling in Ethiopia) of primary school enrolment, preliminary results from a chi-square analysis almost all the variables are significantly associated with enrolment and dropout. This implies the variables are valid for further investigation.

Based on the correlation coefficient results, the computation as shown in the Table above reveals that there was no problem of association among the discrete explanatory variables.

Hence, after screening of the best variables among the hypothesized variables multicolliniarity problems were checked for both continuous and discrete variables and accordingly there was no multicolliniarity problem found in both cases.

Hence, the above econometric model was used in this part of the study to identify determinant variables that influence decision of enrolling and dropping children from primary schooling.

The dependent variables are primary enrolment and primary school dropout. In order to explain these binary variables, it is necessary to construct a model that relates the dependent variables to a set of independent variables. The logit model was employed in this study to estimate the effects of the hypothesized independent variables on the enrolment and dropout situations of primary schools in the study area.

From this all the selected variables were entered into the model for both enrolment and dropout separately. Hence for enrolment 17 variables (nine continuous and eight discrete) and

for dropout again 17 variables (nine continuous and eight discrete) that can best fit were entered into binary logit model for further analysis.

4.4.1 Estimates of the Binary Logit Model and econometric analysis for enrolment trends

The data in Table 71 indicates, the outputs of binary logit model and the significance levels and relations of both continuous, dummy and discrete variables and enrolment situation.

Table 71 The Maximum Likelihood Estimates of the Binary Logit Model for enrolment tr - ends

	Variable	Estimated Coefficient (B)	S.E	Wald Statistics	Sig. Level	Exp (B)
1	Agehhh	.001	.036	7.716	.970	1.001
2	Edulhhh	.488	.558	.765	.382	1.629
3	Birtofch	-4.001	1.252	10.205	.001***	.018
4	Extgctss	-2.593	.815	10.122	.001***	.075
5	Altlbupk	-.119	.978	.015	.903	.888
6	Harsmtr	-1.250	.561	4.965	.026**	.286
7	Lakprsft	-5.688	1.549	13.483	.000***	.003
8	Prcefmem	3.765	2.097	3.223	.073*	43.164
9	Ntchdhhh	-.914	.385	5.635	.018**	.401
10	Hhhatted	.828	.229	13.073	.000***	2.289
11	Lvaspced	1.711	.871	3.858	.050**	5.534
12	Soclprtn	.571	.528	1.169	.280	1.770
13	Cosmpltn	.320	.507	.398	.529	1.377
14	Szffmlnd	.577	.950	.369	.544	1.781
15	SzlvTLU	.332	.121	7.528	.006**	1.394
16	Erlymrgr	-2.321	.745	9.706	.002***	.098
17	Occofhhh	-.365	.426	.733	.392	.694
Constant		-17.056	8.073	4.464	.035	.000

Source: Own Survey result, 2014 *** sig. at 1%, ** sig. at 5% & * sig. at 10%

Chi-square 155.742 Hosmer and Lemeshow Test 0.992

The maximum likelihood method was used to estimate the coefficient of the explanatory variables. The result indicates that among seventeen hypothesized explanatory variables ten variables were found to significantly affect enrolment situation of primary schooling.

The result of econometric analysis indicate that birth order of the child (Birtofch), Perceived existing costs of schooling (Extgctss), sexual harassment (Harsmtr), lack of personal safety (Lakprsft), presence of female employees (Prcefmem), number of total children in the household (Ntchdhhh), household attitude towards education (Hhhatted), level of aspiration of household heads (Lvaspced), size of total livestock holding (SzlvTLU) and early marriage (Erlymrgr) were affecting household heads decision whether or not sending children to school. Children who were out school were affected by these factors in the study area. However these factors affect enrolment situation of female children in the study area significantly, at different levels.

Regarding the signs of the coefficient estimates all the significant explanatory variables have the expected sign. Concerning the hypothesized sign of the significant explanatory variables only number of total children in the household that was hypothesized to have positive relation with the dependent variable enrolment resulted with negative relation.

Birth order of the child (Birtofch) - affected enrolment situation of primary school aged children negatively. When the birth order of the child changes from younger to elder the odds ratio in favor of not enrolling children would increase by a factor of 0.018. In other words the probability of sending children to school decreases by 1.77%. This means, the elder children have less probability to get enrolled, compared to younger children.

Perceived existing costs of schooling (Extgctss**)** – It affected enrolment situation negatively. When the perceived existing costs of schooling changes from low to high the odds ratio against enrolment would increase by a factor of 0.075. In other words, the probability of sending children to school decreases by 6.98%. This means, when the perceived costs go higher, chance of enrolment of children reduces. This factor affects girls more than boys.

Sexual harassment (Harsmtr) – It affected enrolment of daughters negatively. When the degree of daughters harassment changes from low to high the odds ratio against enrolment of daughters would decrease by 0.286. In other words, the probability of sending children to

school would decrease by 22.24%. This implies that household heads that feel their daughter have a chance of being harassed, they less likely enroll to school.

Lack of personal safety (Lakprsft) – This factor has a negative relation with the dependent enrolment. When the situation for lack of personal safety increases from zero to one (from safer to harsh) by one unit the odds ratio against enrolment would increase by a factor of 0.003. This can be stated as the probability of sending daughters to school would decrease by 0.3%. This implies that household heads that lack security of their daughters safety, they less likely enroll them to school.

Presence of female employees (Prcefmem) – that is to mean presence of female role models and has a positive relation with enrolment. When presence of female employees increases from none to present the odds ratio in favor of primary school aged daughters enrolment would increase by 43.164. In other words, the probability of sending daughters to school would increase by 97.7%. This result showed that the presence of role models in the area would increase the household heads aspiration to see the rewards of educating daughters and hence could enroll to school.

Number of total children in the household (Ntchdhhh) – It has a negative relationship with enrolment. When the total number of children in the household increases by one unit the odds ratio against enrolment would decrease by 0.401. In other words, the probability of sending children to schools would decrease by 28.6%. Those families with larger size of children could send only 28.6% of the total children they had. These household heads may keep some of the children in home to share their burden for the probable reasons that they couldn't cover the whole cost of schooling. Under these situations household heads prefer boys to enroll than girls.

Household attitude towards education (Hhhatted) – It has a positive relation with the dependent. When the household heads' attitude towards education changes by one unit the odds ratio in favor of sending children to would increase by 2.289. In other words, the probability of sending children to school would increase by 69.6%. Those household heads

with better level of attitude towards education, the likelihood of children to be sent to school would increase by 69.6% for the probable reason they recognized the final rewards of educating children.

Level of aspiration of household heads (Lvaspced**)** – This factor has a positive relation with enrolment. A unit increase on the level aspiration of household heads on the education of their children the odds ratio in favor of sending children to school would increase by 5.534. In other words, the probability of sending children to school would increase by 84.7%. This is to mean if household heads level of aspiration on children's education is higher, they could enroll good majority (84.7%) of their school-aged children probably because they aspire that children may get job in the future. This factor affects girls more than boys.

Size of total livestock holding (SzlvTLU) – It has a positive relation with enrolment. When size of livestock holding of household increases by one unit the odds ratio in favor of enrolment would increase by 1.394. In other words, the probability of sending children to primary school would increase by 58.2%. This is to mean the household heads ability of enrolling children would increase roughly by half since they could get enough land to generate income for their schooling.

Early marriage (Erlymrgr) - It was negatively related to enrolment. When early marriage increases from low to high the odds ratio against enrolment would decrease by 0.098. In other words, the probability of sending daughters to school would decrease by 8.9%. This is to mean under the existing early marriage situation household heads would be interested to only enroll roughly one out of ten children in the household. This is probably because they feel lack of security for their daughters if sent to school.

From the variables that showed significant relation with enrolment situation perceived costs of schooling, number of total children in the household and level of aspiration affect girls more than boys. On the other hand, sexual harassment, lack of personal safety to send girls to school, presence of female role models and early marriage affect girls only.

4.4.2 Estimates of the Binary Logit Model and econometric analysis for dropout trends

The data in Table 72 indicates, the outputs of binary logit model and the significance levels and relations of both continuous, dummy and discrete variable and dropout situation.

Table 72 The Maximum Likelihood Estimates of the Binary Logit Model For dropout

S.No	Variable	Estimated Coefficient (B)	S.E	Wald Statistics	Sig. Level	Exp (B
1	Agehhh	.007	.031	.046	.831	1.007
2	Edulhhh	-1.011	.495	4.170	.041**	.364
3	Birtofch	2.037	.788	6.675	.010**	7.666
4	Esdsitrq	.894	.465	3.696	.054*	2.446
5	Extgctss	1.411	.507	7.741	.005***	4.100
6	Altlbupk	2.297	.907	6.409	.011**	9.946
7	Harsmtr	.464	.409	1.287	.257	1.590
8	Lakprsft	1.962	.780	6.319	.012**	7.113
9	Prcefmem	2.327	1.129	4.251	.039**	10.247
10	Ntchdhhh	.447	.259	2.981	.084*	1.563
11	Hhhatted	-.131	.184	.506	.478	.877
12	Lvaspced	-1.806	.559	10.437	.001***	.164
13	Soclprtn	-.208	.498	.174	.676	.812
14	Cosmpltn	.160	.473	.114	.736	1.173
15	Szffmlnd	-.632	.923	.469	.493	.531
16	SzlvTLU	-.341	.122	7.812	.005***	.711
17	Erlymrgr	.914	.446	4.199	.041**	2.494
	Constant	3.639	5.639	.416	.043	.000

Source: Own Survey result, 2014 *** sig. at 1%, ** sig. at 5% & * sig. at 10%

Chi-square 115.336 Hosmer and Lemeshow Test-Sig. .870

The maximum likelihood method was used to estimate the coefficient of the explanatory variables. The result indicates that among seventeen hypothesized explanatory variables eleven variables were found to significantly affect dropout situation of primary schooling.

With regard to dropout situation of children in the study area it indicated that education level of the household head (Edulhhh), birth order of the child (Birtofch), estimated distance to reach school (Esdsitrq), Perceived existing costs of schooling (Extgctss), alternative labour use by household heads during peak times (Altlbupk), lack of personal safety (Lakprsft), presence of female employees (Prcefmem), number of total children in the household (Ntchdhhh), level

of aspiration of household heads (Lvaspced), size of total livestock holding (SzlvTLU) and early marriage (Erlymrgr) were affecting household heads decision of pulling children from their school.

Education level of the household head (Edulhhh) – It has a negative relation with the dependent i.e. dropout. When education level of the household head decreases from educated to not educated the odds ratio in favor of dropping out children from school would increase by 0.364. In other words, the probability of children to dropping out from primary school would increase by 26.7%. This is to mean household heads with lower level of education would withdraw roughly one child out of five children who already were attending schooling. This is probably because they might have seen the opportunity cost their labour to enrolling them. This factor affects girls more than boys.

Birth order of the child (Birtofch) – It has a positive relationship with dropout. When birth order of the child changes from younger to elder the odds ratio in favour of dropping out from primary school would increase by 7.666. In other words, the probability of children they being elder to dropout of school would increase by 88.5%. This is to mean roughly every nine elder children dropout out of ten children in the household. This situation creates a lower dropping out situation to younger children in the same household. This probably because elder children wanted in helping agricultural activities and household chores.

Estimated distance to reach school (Esdsitrq) – It has a positive relation with dropout. When estimated distance from home to school increases by one unit the odds ratio would increases by 2.446. In other words, the probability of children traveling longer distances to school would increase by 71%. This is to mean if school distance is too far seven out of every ten children may dropout for the probable reasons that there might be lack of security for daughters and younger children might not travel longer distances and hence dropout. This factor affects girls more than boys.

Perceived existing costs of schooling (Extgctss) – It has a positive relation with dropout. When the existing costs of schooling increases from lower to higher the odds ratio would increase by 4.100. In other words, the probability of children dropping out of primary school

would increase by 80.4%. This is to mean if perceived costs of schooling increase, roughly four out of every five children may dropout of schooling and may need them to share the burden of generating their income. This factor affects girls more than boys.

Alternative labour use by household heads during peak times (Altlbupk**)** - It used to measure the variable child labour. It has a positive relation with dropout. When use of child labour by household changes from not using to using the odds ratio in favor of dropout would increases by 9.964. In other words, the probability of dropping out of school would increase by 90.9%. This is to mean if household heads highly rely on child labour and do not use other forms of labour sources, nine out of every ten children would dropout of school. This is because families need them to work on families' farm and house.

Lack of personal safety (Lakprsft) – It is positively related to the dropout. When the situation of personal safety changes from safer to harsher for daughters by one unit the odds ratio in favor of dropping out of school would increase by 7.113. In other words, the probability of daughters dropping out of school would increase by 87.7%. Whenever there is lack of safety, household heads withdraw majority of their daughter from school for the reasons of abduction, harassment, *etc*.

Presence of female employees (Prcefmem**)** – It refers to presence of female role models and has a negative relation with the dropout. When the presence of female role models in the area increases from lower to higher the odds ratio against dropout would increase by 10.247. In other words, the probability of daughters from dropping out, as a result of role models presence, of school would decrease by 91%. Children may dropout of school if household heads couldn't see any successful female in the area that their daughter could finally achieve.

Number of total children in the household (Ntchdhhh) – It has a positive relation with dropout. A unit increase in the total number of children in the household the odds ratio in favor of dropout of children would increase by 1.563. In other words, the probability of children dropping out of school would increase by 61%. In families of larger size of children, they dropout roughly six out of every ten children in the household for the probable reason that they couldn't afford the costs of schooling. This factor affects girls more than boys.

Level of aspiration of household heads (Lvaspced**)** – It has negative relation with dropout. When the household head's level of aspiration of children's education improves by one unit the odds ratio against dropout would decrease by 0.164. In other words, the probability of children's drop out, as a result of a unit improvement in household head's in children's education, would decrease by 14%. This is to mean if the level of aspiration of household heads improve by one unit, roughly one out of every ten children could continue schooling till the last grade for the probable reason that families could aspire children's getting job after schooling. This factor affects girls more than boys.

Size of total livestock holding (SzlvTLU**)** – this factor has a negative relationship with dropout. A unit increase in the size of livestock holding of the household (increase in income effect) the odds ratio against dropout would decrease by 0.711. In other words, the probability of children coming from families with better livestock holding, dropping out of primary school would decrease by 42%. This is to mean if the livestock holding of families improve by one unit, one out of every ten children in the household would continue schooling for the reason that they can afford schooling costs.

Early marriage (Erlymrgr**)** – It is positively related with dropout. When the situation of early marriage changes from lower to higher the odds ratio in favor of dropout would increase by 2.494. In other words, the probability of daughters dropping out of school as a result of early marriage would increase by 71%. This is to mean household heads that believe in early marriage, seven out of every ten daughters dropout of school for the probable reasons of lack of safety and aspiration about the schooling of their daughters.

From the variables that showed significant relation with dropout situation education level of the household head, estimated distance to school, perceived cost of schooling, number of total children in the household and level of aspiration affect girls more than boys. On the other hand, lack of personal safety to send girls to school, presence of female role models and early marriage affect only girls. Similar results obtained from focus group discussions held with household heads.

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Summary and conclusion

Ethiopia is one of the poorest countries in the world. Access to education in Ethiopia is the most limited in the region of Sub-Saharan Africa. The illiteracy rate is higher for females.

The Convention of the Rights of the Child (CRC) states clearly that every child has the right to education, at least basic education. Although it is over 50 years since that declaration was adopted, millions of children till date have no access to education in Ethiopia.

In 1997, the Government launched the Education Sector Development Project (ESDP), whose aims include that of increasing school attendance among rural children and especially girls. More over, the government of Ethiopia has adopted the goal of ensuring universal access to and completion of basic education by 2015.

Due to the shortage of schools and limited financial and human resources, the objectives defined in the ESDP concerning the qualitative development of primary education have not been achieved.

Alternative schooling centers tend to have fewer resources than formal schools, are taken less seriously and offer a lower quality of education. This is not to deny that alternative schooling centers can be successful and have a useful role to play in reaching difficult non-attendees. However, it is clear that an awareness of the potential pitfalls, close monitoring, and research are needed.

The country is far from achieving the goal of universal primary education by 2015 despite improving access to and the quality of basic education being priorities.

This study originates from the recognition of the fact that children who are not enrolled and dropped out from schooling constitute one of the persistent constraints for attaining the goal of “Education for All” in Ethiopia in general, and in the study area in particular. For this reason, it attempted to investigate the nature of children’s not going to school and the early departure

of children from schools and the main explanatory conditions for this problem by taking cases from four PAs in Dehana Wereda,Wag Himera Administrative Zone in Amhara National Regional State, Ethiopia.

For the purpose of empirical investigation, a review of the literature indicated that using the rate of enrolled, not enrolled and dropped outs from schools could be an appropriate indicator for understanding the magnitude of the problem at the household level and school level and that the possible areas for investigation to understand the explanatory conditions revolve around parental, economic, cultural and school factors.

In order to carry out the implementation, the study has been framed around procedural steps including the development of a research proposal, introduction of intent to research settings, selection of research settings and population, pre-testing instruments, administering instruments and data collection, analysis and interpretation of data, and report writing. Instruments of data collection included guided interviews, questionnaires and focus group discussions and personal observations to cross check the data collected through formal survey and to generate more information. The sampled population included household heads of enrolled, dropped outs and not enrolled children, and children of both the enrolled, not enrolled and dropped out categories, teachers, school officials and key informants at school and PA level.

Both primary and secondary data sources were used. Primary data sources were household heads in the respective PAs that were randomly selected, children in school and out of school in the sampled households, and participants in the focus group discussions. Secondary data were collected through reviewing the various documents and reports that were readily available in collaboration with department heads, subject matter specialists and development agents working in the area.

Descriptive statistics were used to describe the household heads' characteristics and enrolment and dropout situations. T-test and Chi-square statistics were used to identify the importance of individual hypothesized variables. VIF and contingency coefficient were also used to assess the existence of multicollenearity among the independent continuous and discrete variables,

respectively and binary logistic regression model was employed to determine the factors affecting the decision made by household heads to enroll and dropout children from primary schooling.

On the other hand, descriptive and econometric analyses were used to analyse parental, socio-economic, cultural and school factors affecting household heads' decision to send children to school and to dropout children from school. Evidences from the descriptive analyses indicate that most of the household heads that enroll their children to school were educated, having lower perceived schooling costs, perceived lower rate of harassment, assumed low level of personal safety, presence female role models, lower number of total number of children, better level attitude towards children's education, better level aspiration on children's education, better holdings of livestock in TLU, lower degree of early marriage.

On the contrary, the reverse situations aggravate the situation of dropout or their improvement reduces the rate of dropout of children. In addition to the effects of other factors like distance of school, harassment, lack of personal safety, absence of female role models, household heads' attitude towards females' education, early marriage seen to affect daughters more seriously and were powerful to withdraw them from their schooling.

Similarly, seventeen hypothesized explanatory variables were used to identify factors influencing the household heads' decision whether or not enrolling to school or dropping from primary schools separately for enrolment and dropout. The result of the binary logit analysis for enrolment indicated that five variables at less than 1% probability level, four variables at less than 5% probability level and one variable at 10% probability level were found to be significant to affect the decision of sending children to primary schools.

In addition, the result of the binary logit analysis for dropout indicated that three variables at less than 1% probability level, six variables at less than 5% probability level and two variables at 10% probability level were found to be significant to affect the decision of pooling children out of primary schools.

With regard to enrolment, the results of the different explanatory variables that determined the decision of household heads shortly and briefly indicated as follows:

Birth order of the child was found to have a negative and significant impact on decision of sending children to school at less than 1% level of significance implying that younger children have better chance of enrolling to school than elder ones. This is because elder children share the burden of agricultural activities and household chores.

Perceived existing costs of schooling was found to have negative and significant effect on decision of sending children to primary schools at less than 1% level of significance implying that higher perceived existing costs of schooling reduces the rate of enrolment of children.

Sexual harassment affected enrolment of daughters negatively. It has a significant effect on decision of household heads in sending daughters to school at less than 5% level of significance which implies that higher rate of harassment reduced the probability of school aged daughters going to school.

Lack of personal safety was found to have a negative and significant impact on decision of sending daughters to school at less than 1% level of significance implying that higher risk of personal safety reduces the likelihood of school aged daughters going to primary schools.

Presence of female role models has a positive and significant effect on decision made by household heads in sending daughters to school at less than 10% significance level implying that their presence improves daughters' aspiration and parents' better feeling about the safety of their daughter when sent to primary schools.

Number of total children in the household has a negative and significant effect on household heads' decision in sending children to school at less than 5% significance level implying that larger number of children in the household reduced the possibility of children enrolling to school. It is very difficult for household heads with lower income to send all their children to school and hence may discriminate between younger and elder or between boys and girls.

Household attitude towards education has a positive and significant effect on household heads decision to send children to school at less than 1% significance level implying household heads with better level of attitude towards education improved the probability of children's going to school.

Level of aspiration of household heads has a positive and significant effect on decision made by household heads in sending children to school at less than 5% significance level implying that household heads with better level of aspiration on children's education improved the state of children's enrollment.

Size of total livestock holding in TLU this factor has a positive effect on the status of enrolment of children. It has a significant effect on household heads decision in sending children to school at less than 5% significance level implying that household heads with better livestock holding sent their children to school. In this study the largest share of the schooling costs and other related costs were covered by selling livestock.

Early marriage has a negative and significant effect on the decision of household heads in sending daughters to school at less than 1% significance level. This implies that higher rate of early marriage reduced the possibility of daughters enrolling to school.

With regard to dropout, the results of the different explanatory variables that determined the decision of household heads shortly indicated as follows:

Education level of the household head has a negative and significant effect on the decision of household heads in dropping children out of primary school at less than 5% significance level implying that household heads with better level of education persist (maintain) children in school till the last grade of primary education.

Birth order of the child it has a positive and significant effect on the decision of household heads in pulling children out of school or educate them till the last grade at less than 5% significance level. This implies that household heads with elder children decide to dropout of

school to educate younger ones since the opportunity cost of educating elder children is not profitable especially for families who cannot hire or pool labour in other forms.

Estimated distance to reach school has a positive and significant effect on the decision of dropping out children from school at less than 10% significance level implying that when the school distance is farther, household heads decide to pool out children from school. This factor has severed effect on daughters schooling.

Perceived existing costs of schooling has a positive and significant effect on the household decision in dropping out children from school at less than 1% significance level implying that higher perceived costs of schooling increase the possibility of dropping out children from schooling.

Alternative labour use by household heads during peak times has a positive and significant effect with the decision of household heads to withdraw the children from primary schools at less than 1% significance level implying that household heads not using alternative labour rely on family labour and more likely dropout children from school.

Lack of personal safety has positive and significant effect with the decision of dropping out daughters from school at less than 5% significance level which implies that presence of less safety the household heads decide to dropout their daughter.

Presence of female role models has a negative and significant effect on the decision of household heads to drop daughters out of school at less than 5% significance level implying their presence reduce the rate of daughters dropping out from schools.

Number of total children in the household has a positive and significance effect with the household heads decision to withdraw children from school at less than 10% significance level implying that more children in the household enforce household heads to dropout some of the children from school.

Level of aspiration of household heads has negative and significant relation with the decision of household heads to dropout children from schools at less than 1% significance level implying that household heads with better level of aspiration of their children's education reduce the rate of children from dropping out of school.

Size of total livestock holding in TLU has a negative and significant effect on household heads decision to dropout children from school at less than 1% significance level implying that household heads with lower number of livestock in TLU pool children from school for economic reason.

Early marriage has a positive and significant effect on household heads decision to pool daughters out of school at less than 5% significance level implying that household heads that give value to family pride or fear of abduction or harassment and hence drop their daughters out of school.

From the results econometric model among the variables that showed significant relation with enrolment situation of school aged children perceived costs of schooling, number of total children in the household and level of aspiration of the household head affect girls more than boys. On the other hand, sexual harassment, lack of personal safety to send girls to school, presence of female role models and early marriage affect only girls. Similar results obtained from focus group discussion with household heads.

With regard to dropout situation of children, among the variables that showed significant relation education level of the household head, estimated distance to school, perceived costs of schooling, number of total children in the household and level of aspiration of the household head affect girls more than boys. On the other hand, lack of personal safety to send girls to school, presence of female role models and early marriage affect dropout situation of girls only. The results obtained from focus group discussion revealed the results obtained from the model.

5.2. Recommendations

Although commendable effort has been made to improve the access, quality, and equity of the education system at all levels, there are still indicators that the situation is further worsening in Ethiopia. On top of this, wastage in the form of dropouts, absence of relevant and adequate educational materials, shortage of qualified educational personnel paralyzed quality improvement in the overall education system of the country.

Recommendations to improve enrolment and reduce dropout situations, based on the findings of this study are as follows:

1. Encourage timely enrolment-There should be efforts to enroll children in school at an earlier age according to the policy. Especially for girls, if pupils enter school at 7 and take 8 years in primary education, they complete their schools just before they reach puberty. This gives female students enough time to complete their schooling before they get married or are demanded to do the bulk of domestic activities.
2. Diversifying the occupation- Adopting a poverty-alleviation strategy, particularly for households with less number of livestock and low land holdings in helping to diversify their economy to off - farm activities otherwise the problem seems likely to continue to affect children (specially girls) for a long time to come.

3. Providing economic or material incentives - In the short run, it is required that providing children with financial support to buy pens, pencils, books, abolition of fees or materials for clothing (uniforms) that will help to solve some of the barriers to stay in schools. Moreover, in areas of food deficit, school feeding programs will help to keep children in schools, gives additional strength to children traveling longer distances and improve their learning capacity.

4. Sensitizing the communities- Information campaigns and permanent efforts to improve cultural and social traditions that affect girls' education has to be carried out. Committees and societies have to be established and supported to teach on harmful cultural and traditional practices. Moreover, school teachers and kebele administrative representatives should

strengthen their effort in mobilizing the dropped out and the not enrolled children in the locality.

5. Lowering school distance through expansion of alternative schools - Short distances help children to combine school and work where child labour could be the motive for dropping out of school. This could also shorten the time required for traveling between home and school that reduce dangers for personal safety and security of daughters. Opening more schools in villages based on population intensity has to be considered; similar to opening of more tertiary level institutions in the country.

6. Improving proportion of female teachers- More female teachers and school officials should be employed in primary schools. This brings successful role models very close to female students particularly in rural areas. Thus, a scheme to train more female teachers for rural locations, particular problem of the security of (rural) females be addressed, especially the provision of accommodation for female teachers.

7. Improving the household heads' attitude towards female education - Efforts be supported to raise the level of male awareness of the community and family economic benefits likely to arise from increased participation of women and girls in educational and income generating activities.

8. Teachers' pre- and in-service training - teachers' number and qualifications should be the most urgent issue in the quality of education in Dehana Wereda. This also helps to improve the pupil-teacher ratio and enhances the minimum quality requirement in second cycle primary schools.

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Appendix 4- Interview schedule

In partial fulfillment of the M.A in Rural Development to Indera Gandhi National open university, (IGNOU)

Questionnaire for project staff

Dear Sir/Madam.

I am conducting a study on "GENDER DISPARITY IN ENROLMENT AND DROPOUT IN PRIMARY EDUCATION: THE CASE OF DEHANA WEREDA, AMHARA NATIONAL REGIONAL STATE "in this context, I request you to kindly fill up this questionnaire and return to me at your earliest. I assure you that the information given by you will be kept confidential and will be used only prepare my dissertation which is apart my dissertation for M.A. in rural Development of Indira Gandi National Open University.

You're sincerely

Miteku mulugeta Abebe

I. General Instructions to Enumerators

Make brief introduction to each farmer before starting any question, get introduced to the farmers, (greet them in the local way) get his /her name; tell them yours, the institutions you are working for, and make clear the purpose and objective of the study.

Please ask each question so clearly and patiently until the farmer understands (gets your point).

Farmer's Name----------
1. Kebele Administration ----------
1= Amdewok; 2= Bewoll; 3= Chilla; 4= Kozba.
2. Sex of household head: 1= male 2= female
3. Age of household head ---------
and choose the category: 1= 20 - 30 years; 2= 31 - 40 years; 3= 41 - 50 years; 4= 51 - 60 years and 5= > 60 years.
4. Do you expect your children after completion their schools helping in costs of living during your old ages? 1= yes 2= no 3= uncertain
5. Let's assume your age is greater than 60 years, what will you do?

1= I will send them to school and get support from their return of employment; 2= I will let them carry out all farming activities; 3= it will be left for the boys to decide.

6. Current marital status of the household head ----------

1= Single; 2= Married; 3= Divorced; 4= Widow; 5= Widower

7. Religion of household head----------

1= Orthodox; 2= Muslim 3= others (protestant, catholic).

8. Does education affect the religious aspects of yours children?

1= yes 2= partly yes 3= not at all

9. If your answer is yes or partly yes which ones will affected more?

1= males 2= females 3= has no relation

10. Education level of parents: household head------- spouse------- (select your choice in space provided) 1= No education; 2= primary education; 3= secondary education;4=Tertiary education (certificate, diploma, etc.)

11. Do you think you sent your children to school because of your educational background?

1= yes 2= partly yes 3= not at all

12. If you have dropped out children, is that because of your educational background?

1= yes 2= partly yes 3= not at all

13. Number of children in the household: 1= Males-------2= Females--------

14. Birth order of the child - 1= younger; 2= elder.

15. Number of children enrolled to school - 1= males ---------; 2= females ---------

16. Number of children dropped out of school -1= males ---------; 2= females ---------

17. Do you involve in income generating activities other than farming? 1= No; 2= yes

18. Occupation of the parents -1= farming; 2= non-farm employment; 3= off-farm employment; 4= government employee; 5= mix of 1, 2 and 3; 6= mix of 1 and 4.

19. Do you think your occupation affects your decision to enroll and dropout children from school? 1= yes 2= partly yes 3= not at all

20. From your experience which type of occupation favors better enrolment and continuance in education? 1= farming; 2= non-farm employment; 3= off-farm employment; 4= government employee; 5= mix of 1, 2 and 3; 6= mix of 1 and 4.

Parental attitude towards education (tick one of the given alternatives)

To what degree do you agree with the following statements?

21. The current curriculum has limitations on career development and future competence.

---------- ---------- ---------- ---------- ----------

1= strongly agree 2=agree 3=not Sure 4=disagree 5= strongly disagree

22. Education erodes cultural and spiritual values of the community and better to keep children proceed with what their families are doing.

---------- ---------- ---------- ---------- ----------

5=strongly agree 4=agree 3=not Sure 2= disagree 1=strongly disagree

23. Since the employment opportunities or the chances to find jobs after completing education are discouraging it is better to train children in better farming and handling household chores.

---------- ---------- ---------- ---------- ----------

5= strongly agree 4= agree 3= not Sure 2= disagree 1= strongly disagree

24. Education could help children to become at least better farmers if not employed in occupation other than farming.

---------- ---------- ---------- ---------- ----------

1= strongly agree 2=agree 3= not Sure 4= disagree 5= strongly disagree

25 What do you think about the reasons for children not enrolled to school while their brothers and sisters are in school? 1= cost of schooling all children; 2= labour demand in farm and household chores; 3= large livestock holding that children are needed to look after; 4= to prepare them for marriage; 5= to prepare boys to share the burden of their fathers.

Parental attitude towards female education (tick one of the given alternatives)
To what extent do you agree with the following statements?
26. In education, girls could perform or achieve as well as boys.

1= strongly agree 2= agree 3= not Sure 4= disagree 5= strongly disagree

27. Educated girls are as important as good as educated boys.

1= strongly agree 2= agree 3= not Sure 4= disagree 5= strongly disagree

28. Girls have the intellectual capability to effectively use their education in life.

1= strongly agree 2= agree 3=not Sure 4=disagree 5= strongly disagree

29. Girls have to be accorded as much resources as boys for their education.

1= strongly agree 2= agree 3= not Sure 4= disagree 5= strongly disagree

30. Boys and girls are equally intelligent and can perform equally.

1=strongly agree 2= agree 3= not Sure 4=disagree 5=strongly disagree

31. Girls need education even if they are married or get pregnant before they complete schooling.

1= strongly agree 2= agree 3= not Sure 4=disagree 5=strongly disagree

32. Girl education guarantees more secure family and old age support.

1=strongly agree 2= agree 3=not Sure 4= disagree 5= strongly disagree

33. Education makes girls more understanding and self-confident.

1= strongly agree 2= agree 3= not Sure 4=disagree 5= strongly disagree

34. Educated daughter's chance for employment is by far better than uneducated ones.

1= strongly agree 2= agree 3= not sure 4= disagree 5= strongly disagree

35. Education changes the cultural beliefs of daughters that reduce their acceptance by their counter parts.

5=strongly agree 4= agree 3= not sure 2= disagree 1= strongly disagree

36. Sending daughters to school will lead them to be harassed by boys and teachers.

5= strongly agree 4= agree 3= not sure 2=disagree 1= strongly disagree

37. Education enables daughters to get married late and have fewer, healthy, educated children in future life.

strongly agree 2= agree 3= not sure 4= disagree 5= strongly disagree

Distance from schools

38. What is the estimated distance of the school in terms of time required for children to reach the school? –
1= 15 minutes; 2= 30 minutes; 3= 60 minutes (an hour); 4= 180 minutes (an hour and half).
39. How do you perceive the impact of distance on school performance?
1= has no impact; 2= little impact; 3= very high impact; 4= high impact up to dropping out of school
40. How do you see the impact of distance on boys and girls?
1= the same 2= affects daughters more 3= affects boys more 4= no effect at all.
If distance has impact on daughters' education, could you rate the following?

	1= High	2= Average	3= Low
41. Fear of abduction	----------	----------	--------
42. Sexual harassment	----------	----------	----------
43. They get tired and couldn't learn and study better	---------	--------	--------
44. Extra cost of accommodation	---------	---------	-------
45. They could get pregnant	----------	----------	-------

46. What is the impact of distance from school on boys?
1= they get tired and couldn't study 2= they waste their time playing on their way to home; 3= they learn bad habits 4= no problem at all

Level of aspiration

47. Do you have higher expectation of your children get job after completion of their school?
1= yes 2= no 3= uncertain
48. Do you have a feeling that says if I can make the profit double from my farming, I can make my family fulfilling? 1= yes 2= no
49. Do you have a feeling that says I want my children to earn more than me? 1= yes 2= no
50. Do you have a feeling of saying I can make a profit double and get rid off the present troubles? 1= yes 2= no

Social participation

51. Do you participate in formal and informal organizations? 1= yes 2= no
52. If your answer is yes, in what positions do you participate?
1= leadership 2= membership 3= as a member of the committee.
53. What is the frequency of attending your participation? 1= frequently 2= seldom
54. Do you think your participation have influenced your decision of sending children to school and persistence in school? 1= yes 2= no 3= partly yes 4= has no relation

Cosmopoliteness

55. Do you go to the near by towns? 1= yes 2= no
56. What is the frequency of your visit? 1= frequently 2= seldom
If your answer is yes, what attracted your attention more? Please rate them:

	1= High	2= Average	3= Low
57. Children with school uniforms	----------	----------	----------
58. Government employees	----------	----------	----------
59. Higher educated officials and politicians	----------	----------	----------
60. Way of educated people expressing ideas	----------	----------	----------
61. Living standard of educated people	----------	----------	----------

Arable farm size

62. Do you own your own farm land? 1= yes 2= no
63.How much is the size of your arable farm? 1. < 1 ha; 2.1 ha;3. in between 1 and 2 ha; 4. 2 ha and more.
64. What do you think with your land holding size to support your livelihood?
1= enough; 2= not enough; 3= should be supported with other means's;
65. Household heads with better arable farm size obtain better economic return and tend to send children to school and educate till the final grade. Do you agree?
1= yes 2= no 3= has no relation
66. household heads with relatively large arable farm holdings;
1= send children to school because of the income; 2= keep elder ones to work on the farm;
3= feel no need to educate children; 4= train how to manage the land and finally inherit.
67. Do you have livestock? 1= yes; 2= no
If your answer is yes, would you please tell us your holding?

Type	Number owned at present (has to be converted to TLU after data collection)
68.Calf	----------
69. Heifer	----------
70. Cow and oxen	----------
71. Sheep and goat	----------
72. Donkey	----------
73.Horse and mule	----------
74. Chicken	----------

75. Does livestock ownership indicates the status of living in your area?
1= yes 2= no 3= partially
76. What is your major source of income for school related costs? 1= farm land products 2= livestock selling 3= inward remittance 4= sell of livestock products 5= other sources
77. Does your livestock ownership affect your decision in sending children to school?
1= yes 2= no
78. What will be your decision if you have large number of livestock?
1= I will send children to school because of no constraining income.
2= I will let some of my boys to look after the herd.
3= I will create some job for my children rather than sending to school.
79. What if your have no livestock?
1= Keep children to work in home and on the farm than sending to school.
2= I will let them go to school from other means's of income.
3= I will allow younger one's to school and keep elders to work in domestic and farm tasks.
80. What will be your decision in choosing among boys and daughters? -------
1= No discrimination; 2= will give priority to boys; 3= will give priority to girls

4= will let boys to school and prepare daughter for marriage.

Off- farm employment-

81. Do you involve in off-farm employment as a means of livelihood? 1= yes 2= no
82. What was the estimated income obtained during the last year? --------- birr.
83. What do you think about the level of your participation in off-farm employment?
1= is a means of two-third of my income; 2= is supportive up to half of my earnings; 3= it covers only few portions of my earnings; 4= is insignificant but it helps.
84. Does it have impact on your decision of sending to school and their persistence in school?
1= yes 2= no
85. From your experience, do you see any significant difference among households who do not involve and who involve in off-farm activities in educating children?1= yes 2= some 3= no

Non-farm employment-

86. Do you involve in non-farm employment as a means of livelihood? 1= yes 2= no
87. What was the estimated income obtained during the last year? --------- birr.
88. What do you think about the level of your participation in non-farm employment?
1= is a means of all my income; 2= is supportive up to half of my earnings; 3= it covers only few Portions of my earnings; 4= is insignificant but it helps.
89. Does it have impact on your decision of sending to school and their persistence in school?
1= yes 2= no
90. From your experience, do see any significant difference among households who do not involve and who involve in non-farm activities in educating children? 1= yes 2= some 3= no

Inward remittance-

91. Do you have inward remittance to support your living? 1= yes 2= no
92. If your answer is yes, how much is the remittance on yearly basis? --------- birr.
93. What is the source of your inward remittance?
1= from relatives living with in the country employed in government organizations; 2= from relatives working in other private jobs like trading; 3= from those working in NGOs;
4= from relatives living abroad
94. From your experience, does inward remittance have influential effect on decision of sending and maintaining children in education? 1= yes 2= little 3= no

Perceived schooling costs

95. What do you think about the existing costs of schooling? 1= high 2= average 3= low
96. From your own experience, what is the extent to which the drop out of children from school is related to direct costs of schooling? 1= high; 2= average; 3= low.
97. What will you do if direct costs of schooling rise? 1= I will pull out boys 2= pull out girls 3= no sex discrimination 4= I will let all to complete under any situation.

Rate the extent to which the following direct costs play the role to pull or push female students out of school.

	1= High	2= Average	3= Low
98. School Payment	----------	----------	----------
99. Costs of textbooks	----------	----------	----------
100. Cost of accommodation	----------	----------	----------
101. Cost of stationary	----------	----------	----------

Child labor (tick one of the given alternatives)

102. When is the peak season for labor requirement?

1= September- November; 2= December- January; 3= February- April; 4= may- end of June

103. Do you use alternative labor sources in addition to family labor? 1= yes 2= no

104. If yes what is your labor source at peak time?

1= hiring labor; 2= traditional labor pooling system "debo" 3= assistance from relatives

105. If your choice of labor is your children and if schools are not closed what will you do?

1= let my children to dropout of school and help me; 2= let some elder boys to dropout; 3= let elder girls to dropout 4= I will handle it by myself

106. If you have wedding and other cultural ceremony in home and if your school girl's support is needed what will you do? 1= I will let her dropout of school 2= I will hire labor

107. Does your daughter work out side school hours? 1= Yes; 2= No

If your answer is "yes", rate the amount of time spend in the week on the following types of work.

	1= All Week	2= some days	3= few days
108. Domestic work	----------	----------	----------
109. Marketing	----------	----------	----------
110. Agriculture	----------	----------	----------
111. Employment for domestic work	----------	----------	----------

112. To what extent do you think that your daughter's schooling has caused shortage of labor at home?---------- ---------- ----------

1=High 2=Average 3= Low

Cultural factors

To what extent do you think that the following cultural traditions and practices hinder the completion of schooling by female students?

	1= High	2=average	3=low
113. Early marriage	----------	----------	----------
114. Circumcision	----------	----------	----------
115. Bride Price	----------	----------	----------
116. Pregnancy	----------	----------	----------
117. Risk of Abduction	----------	----------	----------
118. Harassment	----------	----------	----------

119. Since daughters will get married before the age of completion of their school, no need to invest on their education. Do you agree with this statement? 1= yes 2= no

120. What do you think is the reason for early marriage of daughters?

1= Daughters better fit to marriage than to education; 2= financial constraint enforces to choose boys for education; 3= benefit of girls education is minimal; 4= hopping the financial benefit obtained from her husband; 5= for family pride.

Lack of personal physical safety-

121. Do you think there is danger of safety to send your daughters to school? 1= yes 2= no

If your answer is yes, how do you rate the following?

	1= High	2=average	3=low
122. Risk of Abduction	----------	----------	----------
123. Harassment	----------	----------	----------

124. Do your daughters dropped (if any) because of lack of physical safety? 1= yes 2= no

Lack of female role models

125. Are there females who employed in governmental or non- governmental organizations in your area? - 1= yes 2= no

126. If your answer is yes, does it have impact on parents decision of sending their children to school or retain them in school? 1= yes 2= no

If your answer is yes, how it affects the following concepts:

	1= highly	2= average	3= no effect
127. It implies the safety of girls if sent to school	----------	----------	----------
128. It implies the final reward of education	----------	----------	----------
129. It implies the possibility of getting well-established marriage	----------	---------	---------
130. It implies the possibility of having managed families in number and possibility of educating them.	---------	---------	--------
131. It implies the decision making power of females in their life and home	---------	---------	--------

Gender roles perception -to what extent do you agree with following concepts?

132. Males should not involve in household chores like fetching water, collecting fuel wood, caring for siblings. ---------- ---------- ---------- ---------- ----------

5= strongly agree 4= agree 3= not sure 2= disagree 1= strongly disagree

133. Daughters should help their mothers in household chores after their return from school and boys should concentrate on their study.

---------- ---------- ---------- ---------- ----------

5= strongly agree 4= agree 3= not sure 2= disagree 1= strongly disagree

134. Boys should help their father in farming activities after their return in school and daughters should concentrate on their study.

---------- ---------- ---------- ---------- ----------

5= strongly agree 4= agree 3= not sure 2= disagree 1= strongly disagree

135. Daughters should care for siblings along with their study.

---------- ---------- ---------- ---------- ----------

1= strongly agree 2= agree 3= not sure 4= disagree 5= strongly disagree

136. Educating a boy is useful to his life, while for a girl it is not that useful to her.

---------- ---------- ---------- ---------- ----------

5= strongly agree 4= agree 3= not sure 2= disagree 1= strongly disagree

137. Education may help the boy to get a job, while girl has to become a mother and housewife only.

---------- ---------- ---------- ---------- ----------
5= strongly agree 4= agree 3= not sure 2= disagree 1= strongly disagree

138. A girl can learn as a pass time till she gets married.

---------- ---------- ---------- ---------- ----------
5= strongly agree 4= agree 3= not sure 2= disagree 1= strongly disagree

139. A girl is born to take care of a family in future and not for a job outside, hence education for her is not necessary.

---------- ---------- ---------- ---------- ----------
5= strongly agree 4= agree 3= not sure 2= disagree 1= strongly disagree

II Interview schedule for enrolled, drop out and never enrolled children.

Name of the child ----------

1. Kebele administration - 1= Amdewok 2= Bewoll 3= Chilla 4= Kozba
2. Sex of the child-------- 1= male 2= female
3. Age of the child - 1= 7-10 years 2= 11-14 years 3= 15-18 years 4= 19-22 years
4. Current marital status of the child - 1= Single 2= married 3= divorced
5. Health status of the child. 1= disabled; 2= not disabled
6. Relation of the child to the head and spouse. 1= only related to either of them; 2= child of both parents.
7. Current status of the child's education - 1= enrolled 2= dropped out 3= never enrolled
8. If your choice is enrolled, what is your current level (grade)? 1= 1-3 2= 4-6 3= 7-8
9. Do you joined school of grade one at the right age (i.e. grade one at age of seven)? 1= not enrolled at appropriate age; 2= enrolled at appropriate age.
10. If your response is dropped, from which grade you dropped? 1= 1-3 2= 4-6 3= 7-8
11. Are you interested to go and continue in school? 1= no; 2= yes
12. What do you think is the main reason for your dropping out of school? 1= cost of schooling 2= labor demand in farming and household chores 3= large livestock holding to look after them 4= to prepare them for marriage
13. If you are not enrolled so far what is the reason? 1= cost of schooling 2= labor demand in farming and household chores 3= large livestock holding to look after them 4= to prepare them for marriage
14. What is your birth order among the children in the house? 1= elder 2= second elder 3= younger 4= second elder
15. If you are elder and if you are a dropout do you think that is because you are elder to help the parents in household tasks and farming? 1= yes 2= no
16. If you never enroll to school, do you think that it is because you are elder to help the parents in household tasks and farming? 1= yes 2= no
17. Do you think that the chance to find jobs after completing education is discouraging? 1= yes 2= no 3= not sure
18. Do you think that educating children could erode the cultural and spiritual values of the community? 1= yes 2= no
19. Do you think education can make children farmers if not employed in occupation other than farming? 1= yes 2= no
20. Do you feel that in education of girls could achieve as good as boys? 1= yes 2= no
21. Do you think educated girls are as equally important as educated boys? 1= yes 2= no

22. Do you feel girls have intellectual capability to effectively use their education in life?1= yes 2= no

23. Do girls need education even if they are married or get pregnant before completing their schooling? 1= yes 2= no

24. Do you think education makes girls more understanding and self confident? 1= yes 2= no

25. Do you agree that educated daughters' chance for employment is by far better than uneducated one's? 1= yes 2= no

26. Do you feel education changes the cultural beliefs of daughters that reduce their acceptance by their counter parts? 1= yes 2= no

27. Do you think that education enables daughters to get married late and have fewer, health and educated children in future life? 1= yes 2= no

28. Is the school distant from your residence? 1= yes 2= no

29. If your answer for question for 25 is yes, what is the estimated distance to reach the school? 1= 10 minutes 2= quarter an hour 3= half an hour 4= an hour 5= more than three

30. How do you perceive the impact of distance in your performance? 1= has no impact 2= little impact 3= very high impact 4= high impact up to dropping out of school.

31. How do you see the impact of distance on boys and girls?

1= the same 2= affects daughters more 3= affects boys more 4= no effect at all

If distance has impact on daughters' education, could you rate the following?

	1= high	2= average	3= low
32. Fear of abduction	----------	----------	----------
33. Sexual harassment	----------	----------	----------
34. They get tired and couldn't learn & study	--------	----------	----------
35. Extra cost of accommodation	---------	----------	----------
36. They could get pregnant	---------	----------	----------

37. What is the impact of distance from school on boys?

1=get tired and couldn't study 2= waste their time playing on their way to home 3= learn bad habits

38. Do you have higher expectation of getting job after completion of your school? 1= yes 2= no

39. The return of educating boys is by far better than girls. Do you agree? 1= yes 2= no

40. Do you work on your father's farm and help household chores? 1= yes 2= no

41. At times of peak season and if school is not closed, do you left school for helping families? 1= yes 2= no

42. If there is plenty at home and if parents decide to withdraw some children from school which ones will be forced to drop out? 1= boys 2= daughters 3= elder boys 4= elder girls

43. Do daughters work outside school hours? 1= yes 2= no

If your answer to the above question is yes, rate the amount of time spent in the week on the following types of task.

	1= all week	2= some days	3= few days
44. Domestic work	----------	----------	----------
45. Marketing	----------	----------	----------
46. Agriculture	----------	----------	----------
47. Domestic work elsewhere	----------	----------	----------

48. Do you think that daughter's schooling has caused shortage of labor at home?1= yes 2= no

To what extent do you think the following cultural traditions and practices hinder the completion of schooling by female students?

	1= high	2= average	3= low
49. Early marriage	----------	----------	----------
50. Circumcision	----------	----------	----------
51. Bride price	----------	----------	----------
52. Pregnancy	----------	----------	----------
53. Risk of abduction	----------	----------	----------
54. Harassment	----------	----------	----------

55. Is boys' early marriage common in your area? 1= yes 2= no
56. What do you think is the reason for early marriage of the daughters?
1= Daughters better fit to marriage than education 2= financial constraint enforces to choose boys for education 3= benefit of girls education is minimal 4= hopping the financial benefit obtained from her husband 5= for family pride
57. Do you think there is danger of safety while traveling to school? 1= yes 2= no
If your answer is yes, how do you rate the following?

	1= high	2= average	3= low
58. Risk of abduction	----------	----------	----------
59. Harassment	----------	----------	----------
60. Rape	----------	----------	----------

61. Do you think lack of physical safety is the reason for daughters to dropping out of school? 1= yes 2= no
62. Are there females who employed in governmental or non governmental organizations you know in your area? 1= yes 2= no
63. If your answer is yes, does it have impact on daughters' interest of learning? 1= yes 2= no
64. If such females are there in your area, do you think daughters feel safe while traveling? 1= yes 2= no 3= has no relation.

III Teachers and School Heads Questionnaire

Fill in the spaces provided or tick one of the given alternatives (Only for teachers)

School Name ---------- Kebele ----------
1. Age----- 1= 18- 20 years; 2= 21-30 years; 3= 31-40 years; 4= 41- 50 years; 5= > 50 years.
2. Sex: 1= Male----- 2= Female------
3. Highest level of qualification attained ---- 1= No Qualification; 2= Certificate; 3= Diploma; 4= other
4. If you were asked to choose between boys and girls for teaching, whom do you think you will prefer? 1= Boys; 2= Girls; 3= Makes no differences
5. Do you think that teachers understand the educational bias between boys and girls in your school? ----------1=Yes; 2= No
6. To what extent teachers or other learning materials reflect through their language and presentation any bias towards females? 1= High; 2= Average; 3= Low

To what extent do you believe that the following learning environments hinder female academic attainment in your school?

	1= High	2= Average	3= Low
7. Classrooms	----------	----------	----------
8. Equipment	----------	----------	----------
9. Textbooks	----------	----------	----------
10. Toilet facilities	----------	----------	----------
11. Learning time	----------	----------	----------
12. Library	----------	----------	----------
13. Teacher absenteeism	---------	----------	----------

14. Comparing boys and girls which ones dropout of school? ----------
15. Referring to the above question, what do you think is the causes?----------
16. What do you think about the solutions for the problems? ----------
17. What do you think about the causes and solutions to never enrolled children?----------.

B. Fill in the blank spaces with the required information. (Only for School Heads)

1. Date of construction of your school ----1= only 5 years; 2= 10 years;
   3= 15 years; 4= > 20 years.
2. Total number of teachers: males---------- females ----------
3. Teachers qualification ----- 1= no qualification; 2= Certificate; 3= Diploma; 4= other
4. What is the qualification of female teachers? ---

1= no qualification; 2= Certificate; 3= Diploma; 4= other

What about the availability of the following facilities look like in your school?

	1= Sufficient	2= Average	3= insufficient
5. Classrooms	----------	----------	----------
6. Sport facilities	----------	----------	----------
7. Electricity	----------	----------	----------
8. Library	----------	----------	----------
9. Pedagogical centre	----------	----------	----------
10. Reading rooms	----------	----------	----------
11. Toilet facilities	----------	----------	----------

Tell us the drop out and enrolment rates of students in your school over three academic years from 2003 to 2005 Ethiopian calendar

	Enrolled		Dropped out		Never enrolled	
	01= Male	02= female	01=male	02=female	01=male	02= female
12. 2003 E.C.	---------	----------	----------	----------	----------	----------
13. 2004 E.C.	---------	----------	----------	--------	----------	-------
14. 2005 E.C.	---------	----------	----------	--------	----------	--------

15. What is the ratio of school to population size of the area? ----------
16. What is the ratio of teacher to students? ----------
17. What is the ratio of classroom to students? ----------
18. What is the rate of children's participation? ----------

19. What is the attitude of the people to education? ----------
20. What is being done to make schools more available to school aged children? ----------
21. What is communities' participation to address these issues? ----------
    1= very good 2= moderate 3= poor
24. Ability to learn (for boys) ----------
25. Ability to learn (for girls) ----------
28. Generally speaking comparing boys and girls which ones dropout most? ----------
29. What do you think is the cause for the problems? ----------
30. What do you think is the solution? ----------
31. What do you think about the problems and solution for children never enrolled? -------

Focus Group Discussions

I. Check lists for children focus group discussions

1. From your experience, tell us the main home related factors that contribute to the dropout of children from school.----------
2. From your experience what are the main school related obstacles for children not to succeed in the education? ----------
3. What are the main economic and cultural practices that contribute to the discontinuation of education of students in this area? ----------
4. What are the main cultural factors that contribute to the discontinuation of female students in particular? --------
5. In your opinion does the community believe that education is important? ----------
6. How about their attitude to girls' education, Do they think girls education is important? -----
If your answer is yes, tell us in what major ways they are perceived important?

7. Which group most dropout of school? Boys? Girls? ----------
If there is difference tell us the main reasons ----------
8. What has to be done to reduce dropout rates? ----------
9. Do the solutions differ for both boys and girls? ----------

II. Check list for key informants focus group discussions

1. Do children generally enroll to school in your area? ----------
2. What do you think are the main reasons for the poor enrolment of children to school? -------
3. In your opinion what are the major problems related to schools which may hinder children to complete their education? ----------
4. What major economic and cultural problems do you think contribute to the drop out of students from schools? ----------
5. Are girls important to parents in this area? If so, please tell us in what major ways. --------
6. Do you think that the community in this area believes that girls require education as much as boys? If your answer is yes, tell the reasons. ----------
7. Tell us what has to be done to make students to be successful in education by schools, parents and the government. ----------
8. Do you think special attention should be given to girls' education? If so what are they? -----
9. There are children who are not enrolled to school while others attend in education with in the same household? Why is that? ----------
10. What has to be done to enroll those children? ----------
11. Is it the same for both girls and boys? ----------
12. If there is difference, tell us the reasons.----------
13. What could you tell us about the employment prospects of children in this area? ----------
14. Do your parents are interested to equally invest in boys and girls education?----------
15. Are girls in this area economically important to parents? If your answer is yes tell us in what major ways.----------
16. What is the level of communities' participation in solving education related issues?------
17. What other issues you want to address? ----------