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CHILD LABOUR AND SCHOOL ATTENDANCE IN GHANA

BY

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ACCEPTANCE

Accepted by the Faculty of Social Sciences, University of Ghana, Legon, in partial fulfilment of the requirements for the award of M.A Population Studies.

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Prof. Samuel N. A. Codjoe

Supervisor

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Date

DECLARATION

I, Alex Ansah Nyarko, hereby declare that except for references made to other people's work which have been duly acknowledged, this work is the result of my own research undertaken under supervision and that it has neither in part nor in whole been presented for another degree elsewhere.

……..

Alex Ansah Nyarko

(Student)

……..

Date

DEDICATION

To all my loved ones

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LIST OF ACRONYMS

EFA	Education For All
GDHS	Ghana Demographic and Health Survey
GDP	Gross Domestic Product
GLSS	Ghana Living Standards Survey
GPRS I	Ghana Poverty Reduction Strategy
GPRS II	Ghana Poverty Reduction Strategy
GSS	Ghana Statistical Service
ILO	International Labour Organisation
IPEC	International Programme on the Elimination of Child Labour
LEAP	Livelihood Empowerment Against Poverty
MOESS	Ministry of Education, Science and Sports
MMYE	Ministry of Manpower, Youth and Sports
MDG	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
NGOs	Non-governmental Organisations
USAID	United Nations Agency for International Development
UN	United Nations
UNICEF	United Nations Children's Fund

ABSTRACT

This study examines the effect of child labour on school attendance in Ghana. It particularly tests the significance of children's work and their schooling outcome. The 2006 Multiple Indicator Cluster Survey dataset on children aged 12-14 years with descriptive analysis, cross tabulation and binary logistic regression models were employed for the analysis.

The results show that children labour whether economic or domestic has a substantial effect on children's school attendance after other socio-economic and demographic factors have been controlled for. By comparison, children's economic child labour showed a stronger effect on school attendance likelihood than domestic child labour.

The demographic and socio-economic variables of respondents were tested to see their effect on school attendance of children. Although the test for all these variables did not show any significance at the multivariate level yet they displayed a clear pattern prevailing in the literature. Factors that influence the relationship between child labour and school attendance include age and sex of the child as well as some characteristics of the household and its location.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Child labour has become a major issue all over the world. A United Nations Children's Fund report recently discovered that millions of children around the globe are engaged in one form of child labour as a result of poverty and economic deprivation (UNICEF, 2013). The report revealed that these children are engaged in some form of hazardous or exploitative work, usually at the expense of their health and education, and overall wellbeing and development. In most societies, children work to support their families, but child labour becomes unacceptable when it is carried out by young children who are supposed to be in school. The UNICEF Report cites some instances where children are engaged in some form of work that are unsuitable for children under 18 years in that it poses a threat to their health and development.

Although International Labour Organisation (ILO) current statistics point to a downward trend of child labour in the world, the numbers are still overwhelming (ILO, 2004). For instance, child labour stood at 350 million children in 2004 representing about a fifth of the world's children exposed to exploitation and hazardous forms of work. This dropped to 217.7 million of children (ILO, 2006). In the world child labour league, the Sub-Saharan Africa places the second place with a population of about 49.3 million. Although in relative terms, child labour is still huge among the Asian countries, Africa has the highest child labour rate, estimated at about 41% of all children between 5 and 14 years old (ILO, 2002). The incidence of child labour is rapidly growing in Sub-Saharan Africa

though there is a global decline. The rising problem has caught the attention of organizations like ILO and UNICEF, governments in the region and other stakeholders to address the issue because Africa's future depends on the survival, protection, and development of its children (Andvig, Canagarajah, and Kielland, 2001). Furthermore, the growth in child labour, according to some researchers is attributed to poverty. To them, the harsh economic situation forces families to send their children to work instead of attending school (Bass 2004; Admassie 2002; Bhalotra 2003; Andvig, Canagarajah, and Kielland 2001; Manda, Kimalu, Kimani, Nafula, Nyaga, Mutua, Mwabu & Kimenyi, 2003). The poverty syndrome of child labour is based on the notion that, first poverty rate in Sub-Saharan Arica, currently remains the highest in the world. Second, a current geographical distribution of child workers in relation to the economic history of the developed world shows that economic development reduced child labor in the long run. This perception was confirmed in an earlier study done by Fallon and Tzannatos (1998) in a policy paper presented by the World Bank (1993) which described child labor as "one of the most devastating consequences of persistent poverty".

1.1.1 Child Labour in Ghana

The minimum working age in Ghana is 15 years (ILO, 1973; Ghana Labour Law, 1967). Moreover, Ghana's Labour Law allows children from 12 to 13 years of age to be hired to do light work provided that "the work is not hazardous to their health or mental and physical development and will not affect their regular school attendance".

It is estimated that about thirty–five percent (35%) of Ghana's population of 21 million in 2008 was made up of children aged 5-17 years (Ghana Statistical Service, 2003). Besides, ILO (2010) estimates that about 39 percent of an estimated 6,361,111 children are engaged in some form of economic activity with 1,031,220 of those children under age 13. It adds

that about 57 percent of working children are in agriculture, hunting and industry, 20 per cent in sales, 9.5 per cent in production and 11 per cent in other general works such as putters, trucks pushers and drivers' mates. According to the Ghana Child Labour Survey carried out in 2001, nearly 40 percent of the children had engaged in economic activities within the twelve months preceding the interviews; 31 percent within the last seven days. Half of the rural and about one fifth of the urban children were economically active. Nearly all of them (87 percent of the boys and 92 percent of the girls) had household duties in addition. Of all the children, 57 percent of them were engaged in agriculture, forestry and fishing; 21 percent worked as hawkers and street vendors, selling food, iced water and other items. Most of the children worked in the family business. As many as 1.59 million children were working while attending school. Nearly 20 percent of children (about 1.27 million) were engaged in activities classified as child labour. The phenomenon is prevalent in all regions of the country (GSS, 2003).

The Constitution of Republic of Ghana frowns on child labour. Article 32 of the Convention on the Rights of the Child says: "States Parties recognize the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development.

1.1.2 Education in Ghana

Basic Education

Formal education in Ghana starts at the age of 6 years. This age limit excludes nursery and the kindergarten children because the educational system practiced still follows that of colonial legacy of the British. Ghana's education follows a 6-3-3-4 structure representing,

six years of primary education, three years of Junior Secondary School, three years of Senior Secondary School and four years University programme. Also, students who successfully pass the Senior Secondary School Certificate examination can follow courses at a Polytechnic, Teachers Training College or other tertiary institutions. Basic education, which is made up of primary school and Junior Secondary School, is compulsory and free.

School Attendance & Enrollment

The Ghana Demographic and Health Survey (2008) estimate that three quarters of primary school age children in Ghana attend school with close gender parity in attendance. About 74 percent of boys within the ages of 6-11 attend school compared to 75 percent of girls. Again, the reports indicate that 80 percent of children of primary school age attend school compared to 70 percent in rural areas. Some regional differences were observed. Primary net attendance was highest in the Ashanti region (86 percent) with Northern region recording the lowest rates of 53 percent. Furthermore, the percentage of males within the ages 12-17 who were attending secondary school was 43 and 44 percent for females. Other studies have shown that enrollment rate at the basic level has improved tremendously. The Ministry of Education Science Sports (2007) confirms that gross enrollment rate stood at 95 percent for basic education.

School Dropout

Although school enrollment is high in Ghana, dropout rates are rapidly going up. According to Ampiah and Adu-Yeboah (2009), more than 20 percent of school going children in Ghana have either dropped out or have never enrolled in school. Apart from that, the Ghana Demographic and Health (2006) report estimated that dropout rates across all grades in Ghana were similar (4 percent) with exception of grade three which was 5 percent.

1.2 Statement of the problem

The role of human capital in both economic and human development has been underscored in various studies. Education, as an aspect of human capital formation, is recognized as being vital in increasing the productive capacity as well as improving the standard of living of people. Despite the benefits of education, the general trend of education in most developing countries, and Ghana in particular, is that schooling attainments are relatively low and observed differences in such attainments between males and females exist, with those of the latter lagging behind the former. The United Nations Millennium Summit held in 2000, affirmed the gender gap in education and pushed forward the goal of narrowing this gap. Although the Ghana government's broad education policy objective is to ensure that all people, irrespective of gender and socioeconomic status, have some level of literacy, this objective is far from being realized. This objective is enshrined in the Millennium Development Goal, which is ensuring universal primary education (MDG2).

Besides, basic education in Ghana is compulsory and free; however, there are some parts of the country where access to basic education is lower and in some cases persistently underserved (GSS, 2008). According to the 2008 Ghana Living Standard Survey Report, attendance rates range from 80 to 97 percent in other localities whiles attendance rates in the rural areas stand at 56.6. to 63.5 percent. Also, school enrollment is high in Ghana, dropout rates are rapidly going up. According to Ampiah and Adu-Yeboah (2009) more than 20 percent of school going children in Ghana have either dropped out or have never enrolled in school. This situation is partly attributed to social problem of child labour. Poverty, according to them is among some of the many reasons that forces children to work.

However, the cooperative efforts of government, voluntary agencies and international nongovernmental organizations (NGOs) in Ghana have employed their resources into improving the lives of a lot of children especially in northern part of Ghana. The objectives of the UN's MDG compact, which are reflected in the original poverty reduction proposals of Ghana Poverty Reduction Strategy (GPRS I), included raising the access of all the nation's children and youth to a defined minimum of basic education, unhampered by the particular economic circumstances of their parents or guardians.

There is the need for further interventions if this problem of child labour would be reduced to the barest minimum in Ghana. The causes of this phenomenon are multi faceted and need multi faceted solutions.

In light of the above issues the problem of child labour in Ghana needs to be given more attention. Though a lot of studies have been conducted about the problem it still persists. In order to address it there is the need to have a clear understanding of the nature, causes and trends of child labour. The effects of child labour on children's education calls for further investigations.

1.3 Rationale / Justification

The development of every nation lies on the availability and efficient use of its natural and human capital resources. Hence, the development of the human capital of every nation must be of much concern. It must be recognised that the future of every nation lies in her children and this can only be realized if the children are well equipped with the necessary skills to enable them take over from the aging population. Because children today constitute the future labour resource of a country and therefore reflect the future development of a country, it is important to understand how their peculiar situations

influence their human capital development. I personally think that education as a socio-demographic variable is the focal point to all societal problems. As a result of that anything that hampers a person's right to education like child labour must be critically examined. According to literature available, it is indicated that child labour depends to a greater extent on the income of the family and the educational level of parents. However, most studies done on child labour mainly looked at the determining factors of child labour whiles few have considered future consequences on children (Brown and Deardorff, 2002). The current study is expected to throw more light on the socio-demographic consequences of child labour. It also seeks to create awareness and estimate the magnitude of child labour and school attendance and how it can be addressed. Though there are already existing legislations on child labour and school attendance the study will help to reinforce the need for appropriate enforcement mechanisms to safeguard the exploitation of children at the expense of their future. The research findings will also add to the existing literature of knowledge. The research findings and recommendations will stimulate interest in the area and call for further research in future.

1.4 Objectives

1.4.1 General Objective

The purpose of the study is to examine whether child labour hinders the school attendance of children aged 12 to 14 years.

1.4.2 Specific Objectives

The study will specifically;

a) Describe the prevalence of child labour

b) Examine the relationship between child labour and school attendance

c) Provide recommendations for policy implications

1.5 Limitations

The 2006 Multiple Indicator Cluster Survey has some limitations with respect to the relationship between child labour and children's school attendance. The data do not measure actual nature of work done. Their measurements are bias because using only hours of work done leaves the nature of work engaged in.

Also, there can be underestimation of children who are engaged in child labour. This is because some parents may not want to disclose that their children are working especially where they know it is illegal.

The survey did not gather data on some variables that could have also enhanced this study. For example, information on birth order of children and on occupation of parents were not available. Also, information on distance, cost of schooling and quality of learning materials were not available in the data. These variables are proven to be hindrances of children's schooling outcomes.

1.6 Organisation of the study

The study is organized under seven chapters; chapter one covers the introduction, which includes the background of the study, statement of the problem, rationale of the study, objectives, hypotheses, limitation of study and the organization of study. Chapter two takes care of the literature review and theoretical and conceptual framework, whilst chapter three deals with methodology, chapters four, explores the demographic and socio-economic variables of the respondents. In Chapter five, the relationships that exist between the demographic and socio-economic variables and children's school attendance are discussed. The results of the multivariate analysis are discussed in chapters six. Chapter seven gives the summary, conclusions and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Child labour concepts and definitions

Child labour is a complex social phenomenon and can be looked at from diverse points of view. Definitions of child labour vary from context and purpose and from country to country. The World Bank defines child labour as a 'serious threat' from the point of view of the harm it can do to long term investment (Weston, 2005). UNICEF (1997) captures the complexities of the definition by considering child labour as a long scale or continuum where one end of it enhances a child's physical, mental, spiritual, moral or social development without interfering with schooling, recreation, and rest with the other end destructive or exploitative".

This assertion from UNICEF raises a lot of important issues as to when child labour becomes beneficial or dangerous to the child and the point at which it becomes a social problem. Clearly there are extreme forms of child work that are unacceptable – child prostitutes, bonded laborers, and child soldiers – should not be tolerated under any circumstances. However, there are other types of work like household chores, farm work that need to be closely examined to determine their impact on children. For example, household chores may promote social development for some children but at the same time may be exploitative and destructive for other children (Moyi, 2011).

According to Moyi, the complexities of child labour can be defined either in the narrow or broad sense. A broad definition of child labor may include aspects of child work that are beneficial, while a narrow definition may exclude harmful child activities. By defining child labor as an economic activity researchers fail to capture the large number of children

contributing to the upkeep of the household at the expense of school and social development. There are many dimensions and views of the phenomenon but much emphasis will be placed on the International Labour Organisation (ILO) and the United Nations Children's Fund (UNICEF) views on the subject. The concept of child labour is derived from the ILO Minimum Age Convention Numbers 138 and 182 of 1973, which sets 15 years as the general minimum age for employment. Any work in violation of Convention Number 138 is considered illegal child labour that should be eliminated. ILO introduces a distinction between child work, which may be acceptable, and child labour, which needs to be eliminated. In this regard, three groups of children engaged in work/labour are identified: (i) children between 5-11 years of age who are economically active; (ii) children between 12-14 years of age who work in an economic activity for 14 or more hours per week, and (iii) children between 15-17 years of age who are engaged in hazardous work and working for 43 hours. This is captured in the ILO Convention Number 182 which includes the hazardous activities like bonded labour, child soldiers, prostitution and pornography, and illicit activities. These are works that are likely to harm the health, safety, or moral development of a child.

The underlying assumption in this definition is that work that does not interfere with children's schooling or affect their health is considered as positive. Although ILO distinguishes between child's work and child labor, the measurement employed in the survey data focuses on the child's engagement in an economic activity. This is a narrow definition because it excludes domestic chores such as fetching water, cooking, sweeping, taking care of younger siblings (Reynolds, 1991).

UNICEF has elaborated on ILO's definition of child labour by emphasizing on the importance of domestic work by children in addition to economic work. It defines child

labour as work that exceeds (i) 1 hour of economic activity or 28 hours of domestic activity for children aged 5 – 11 years; (ii) 14 hours of economic activity or 28 hours of domestic activity for children aged 12 – 14 years, and (iii) 43 hours of economic activity for children aged 15 – 17 years.

The UNICEF definition theoretically captures all work or activities performed by children. It provides a good indicator of child labour that is harmful to a child's physical or mental development. However, there are some limitations to this definition. According to Moyi (2011) the definition assumes that 28 hours of domestic chores per week do not interfere with school attendance. The point is 28 hours of domestic chores for a child age 6 seems too high and is likely to impact on schooling. The number of hours children work is an important indicator of the intensity of child work, but it is also useful to know the time of day/night children work to determine its impact on schooling. Despite its limitations, the UNICEF definition is more inclusive and a significant improvement from the ILO definition.

2.2 Causes of child labour

Researchers and practitioners agree that poverty is the main determinant of child labour supply, and that child labour significantly increases the income and the probability of survival of the family. Basu and Van (1998) argue that the primary cause of child labour is parental poverty. That being so, they caution against the use of a legislative ban against child labour, and argue that it should be used only when there is reason to believe that a ban on child labour will cause adult wages to rise and so compensate adequately the households of the poor children. The contribution of children is most of the time critical since children are sent to work when parents' earnings are insufficient to guarantee the survival of the family, or are insecure so that child labour is used as a means of

minimizing the impact of possible job loss, failed harvest and other shocks on the family's income stream (Galbi, 1997). Poor households also tend to have more children, and with large families there is a greater likelihood that children will work and have lower school attendance and completion.

ILO (2006) observes that while poverty is almost always a context for the early entry of children into regular work and into child labour, poverty can also be a function of: a) access to labour markets and income-raising activities; b) family members of working age not having appropriate skills to match market needs in the area where they live; c) family members low educational levels; d) unemployment in the area where the family lives; e) conflict, illness or natural disaster having taken away the breadwinner of the family leaving a dependent household with no-one to depend on. Apart from the incidence of parental poverty others think the causes of child labour goes beyond that. Many children live in areas that do not have adequate school facilities, so they are compelled to work.

Odonkor (2007) claims "rural parents should rather be seen as people dissatisfied with the education system than as illiterates ignorant of the value of education". The results of a study conducted confirmed that because of the low quality of education, difficulties in access and also the uncertainty of finding an adequate job after graduation, parents have developed a coping strategy by which they send some of their children to school and the others help in fishing, farming or other economic activities. Where education is mandatory, available and understood as important, the proportion of child labour is lower.

Poverty may not be the main cause but certainly an important cause that influences a lot in child labour. Why would a child prefer to get an education or go to school when staying in work can make him eat on that day? Or even worse, not even have the opportunity of choice between attending schools or work (UNICEF, 2008).

The fact is that the opportunity or the proportion of work for kids is the one that makes child labour occur. It exists because it is treated as acceptable culturally or politically. In many countries there exists a strong tradition of tolerance for child labour. The result is the child labour expansion among some poor ethnic groups. In a similar form discriminatory attitudes for women and girls can enforce their parents will to send their daughters to serve in homes or do other forms of work.

The results of four African countries surveyed by ILO on child labour indicate that working children were considered essential as contributors to the household economies in all four of the surveyed countries, either in the form of work for wages or in the form of help in household enterprises. In most of the businesses surveyed in Ghana, for example, the employed children were either those of the owner or were close relatives. The two main reasons why enterprises employed child labour were the "willingness" of children to work as many hours as required, and the absence of labour disputes, (ILO,1996).

In the Northern region of Ghana in particular the issue of education has been a problem over the years and has to do with the inadequate infrastructure for schooling coupled with cultural beliefs that attach less importance to education especially female education.

2.3 Effects and Ramifications of Child Labour

Research has identified the inherent hazards and risks that children are exposed to when working in exploitative industries. The physical consequences range from malnourishment, disease, musculoskeletal disorders from heavy labour, physical and sexual abuse (see Kathleen, 1988), injuries, and exposure to toxic agents (Korbin, 1983; Malinosky–Rummell & Hansan, 1993). Socially, children can experience negative effects on their educational development and performance. Illiteracy, low school attendance, and

low enrolment have developmental and performance implications and have been attributed to children's economic participation (Basu & Van, 1998)

More still, the mental health of the child is negatively affected. Indeed, children engaged in hazardous industries have been observed to suffer verbal abuse from their employers, consistent fear of job termination, low self esteem, and a loss of imagination and future direction in life (Baland & Robinson, 2000). In another study conducted in Asia, child labour was found to negatively affect the educational outcomes of children (although these effects varied depending on the gender of the child) (Charles & Charles, 2004). In Africa, and particularly in rural Nigeria, it has been observed that child workers engaged in farming have lower school attendance compared to their urban working peers (Robson, 2004). The physical and health consequences of children participating in the sales and service sector have been identified in Latin America, Asia and Africa and include various diseases such as respiratory problems, injuries, rape and molestation, malnourishment, extortion of income, police harassment and participation in harmful or delinquent activities. In other studies, child labourers face robbery, inadequate sleep due to fatigue and long hours on the job, and confinement in juvenile homes (Ross, 1996).

According to the ILO's 2002 global estimates on child labour, close to half of all working children are enrolled in school. Child labour interferes with education. Either school attendance is foregone in favour of work, or learning is inefficient, either because the children are not allowed to spend time doing their homework or because they are unable to pay proper attention in school because of fatigue (Canagarajah, & Nielsen, 1999). UNICEF's study in Ghana and a review of similar studies by the ILO have shown that work has a detrimental effect on learning achievements in the key areas of language and mathematics. Heady (2003) also found that working children in Ghana spent an average of one hour per week less in school. According to Gibbons, Huebler & Loaiza (2003) child

labour is associated with higher repetition and dropout rates. Child labour competes with school attendance and proficiency, children sent to work do not accumulate (or under-accumulate) human capital, missing the opportunity to enhance their productivity and future earnings capacity. This lowers the wage of their future families, and increases the probability of their offspring being sent to work. In this way poverty and child labour is passed on from generation to generation. Child labour not only prevents children from acquiring the skills and education they need for a better future, it also perpetuates poverty and affects national economies through losses in competitiveness, productivity and potential income.

The ILO, (2006) demonstrate that early entry into the labour force reduces lifetime earnings by 13-20 per cent, increasing significantly the probability of being poor later in life. There is a general agreement that some trade-off between children in labour and human capital accumulation takes place. With respect to school attendance and progress, full-time jobs have the worst impact on children's future productivity. Part-time jobs, especially those that are physically very demanding, also disrupt education since children are too tired to participate adequately at school activities or to study at home. The age of entry into the labour force is also important in this context: the younger the child enters the labour force, the less human capital he/she will be able to accumulate. Child labour seriously undermines efforts to provide children with the necessary knowledge and skills to meet the challenges of the 21st Century.

Statistics in this field of child labour are far from reliable, but it is assumed that in some regions of Africa, labour force participation rates for children might be as high as 30 percent. Furthermore, cost benefit analyses show annual Gross Domestic Product (GDP)

losses of 1- 2% because of the loss in human capital stock due to the use of child labour. The long term effect of child labour on the nation is enormous and need to be addressed.

Over time, participation in education has been declared a basic human right (United Nations, 1997) and the importance attached to getting all children to attend school has been enshrined in the Education for All (EFA) goals and MDGs (UN, 2000). This has been the focus of considerable international and national effort. In recent years, enrolment at the basic school level in Ghana has increased significantly but high rates of dropout remain a major challenge (MOESS, 2007). The incremental increases in enrolment have meant that many children are over-age, they enroll late and in addition some repeat grades and others drop out. Only two-thirds of children enrolled reach the last grade of completion (United States Agency for International Development, 2007). The problem of dropout in Ghana has been widely recognised (GSS, 2003; Akyeampong, Djangmah, Oduro, Seidu & Hunt, 2007; MOESS, 2007) with estimates that over 20% of school going children have either dropped out or never enrolled in school (Ampiah and Adu- Yeboah, 2009). Basic education is compulsory in Ghana and ranges from 6 to 9 years. According to official statistics, 85% of children of school going age went to school (86.3% boys and 83.6% girls) in 2001 and between 2001 and 2006 gross enrolment was reported to have reached 90% (MOESS, 2006). Based on household survey data, the Ghana Demographic and Health Survey (GDHS) conducted in 2008, report that dropout rates across all grades in Ghana are similar (4%), except for grade three, which is 5% (GSS, 2009). Variations across the country show higher rates in Upper West, Northern, and Central regions. Drop out, thus, remains a major obstacle to the achievement of universal basic education by 2015 in Ghana.

2.4 Determinants of school attendance

Age of Child

Both schooling and child labour are determined by children's age. The age at which children begin school varies across countries. Besides, the age used to gather data on child labour equally differs from country to country. Ghana, for instance, gathers information on children as low as 5 years. The threshold age for the completion of the compulsory free primary education is 14. It is crucial around this age because children are more likely to enter in the labour market. The expectation is that older children are more likely to be working fully or combining work and school than younger children (Patrinos and Psacharopoulos, 1995).

Sex of Child

Gender roles in most parts of the world are determined by sex of the child. Culturally, girls are associated with domestic work at home such as sweeping, fetching water/firewood, cooking, caring for younger siblings. Whereas boys are more likely to be engaged in economic activities that are market oriented like farming, selling and so on. Girls' education is less favored compared to boys. In Colombia, Cartwright (1999) found the probability of going to work among boys was significantly higher than girls, while girls were more likely to be working full time than boys.

Education of Parents

Parent's educational attainment is a determinant of children's schooling and labour orientations. Parents with low education are believed to contribute little in their children's education as compared to educated parents (Boozer and Suri, 2001)

Income of household.

Given the costs associated with school attendance, household income is a good predictor of attending school or not. For instance, in Pakistan, Ray (2000) proved that higher

household income recorded a higher mean level of schooling. Much theoretical and empirical research presented evidence that household poverty (household income identified below the minimum national standard level) either hinders investment in schooling, or compels the practice of child labor, or both (Basu and Van, 1998).

2.5 Theoretical framework

The theoretical framework adopted in this study comes from the household production model developed by Becker in 1965. The model assumes that children's time allocation is dependent on the decision of the parents (heads of household). The time allocation used by children can be broken down into four categories: school attendance and its related activities such as study time and travel to school, income generating or market oriented work, home production (e.g., house cleaning, gathering fuel or water, caring for siblings), and leisure. Market work has been conceptualized as work for remuneration in cash or kind, or production of output for sale, whereas home production involves the production of output for direct family consumption (DeGraff and Bilsborrow, 1993). They argue that decisions about children's time allocation across alternative activities are jointly determined by resource-constraint in an attempt to maximize utility. Besides, parents decision to either engage the child in an activity (economic or domestic) or send the child to school is dependent on the resource availability (income) of the household (Basu and Van, 1998). Several studies claim that poverty is the major determinant of child labour. However, Bhalotra and Tzannatos (2003) think otherwise because to them micro-data has revealed that children work in households that cannot be classified as subsistence-poor. According to them, the factors that influence parents' decision to make their children work instead of schooling are based on resource constraint and the incentives to work. They argue that children may work when the net returns to education are low and the returns to

work experience are relatively large both in short and long run. In addition, in situations where incentives favor education over work, a household may be compelled by poverty constraints to send a child to work.

Becker and Tomes (1986) point out that parents' concern for the economic capabilities and success of their children prompts them to invest resources in the children's education, health, motivation and other credentials. These expenditures influence the human capital and earnings of children later in life. Moreover, children's educational attainment has the potential to relax the budget constraint in the long-run, as well as provide other benefits related to future health and quality of life. Children's time in home production, including the care of younger children, contributes directly to current household consumption. Work activities may also provide benefits to children in the form of training, socialization and direct satisfaction (Basu 1999).

However, the study will only consider time use by children of school going age for market work or home production. It is believed that the time use decisions are influenced by characteristics of the mother and by the demographic composition of the household. In other words, the framework to model the choices of a child's schooling and activities are reduced to individual, household, parental and community characteristics.

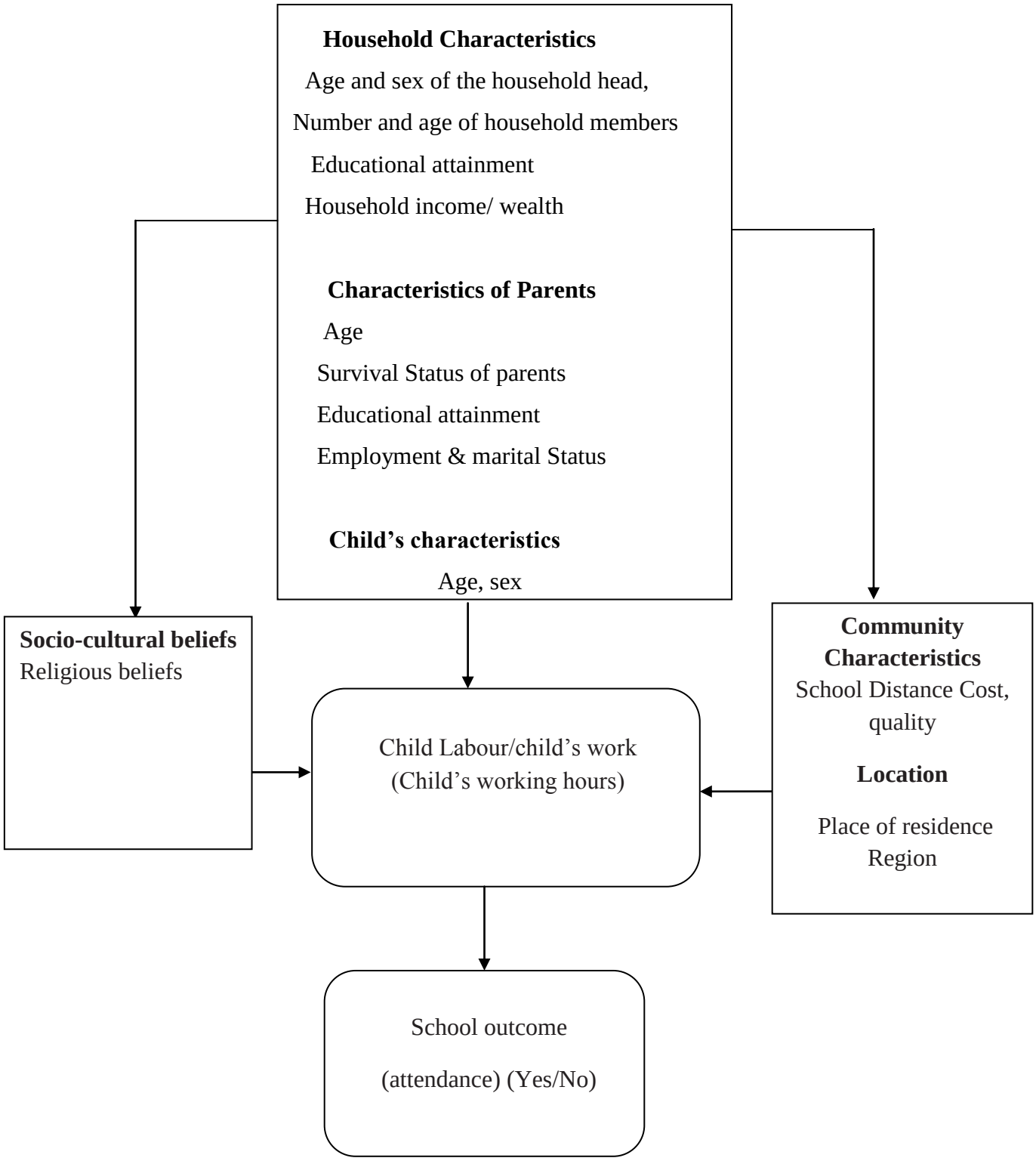
Based on this theoretical framework, it is expected that the demands on each child's time to be affected by the number and ages of other children in the family, and by the individual child's gender and sibling position. Gender is hypothesized to be important because of potential differences in productivity at alternative tasks, and also due to social norms about appropriate roles for boys and girls, differences by gender in expected rates of return to schooling, and parental preference (DeGraff & Bilsborrow, 1993).

Furthermore, it is expected that both household income and parental education should have a negative effect on child's hours of work used for market or home production and a positive effect on school attendance. Also, community characteristics such as the availability and cost of schooling influences school attendance. It is hypothesized that children in rural areas are more prone to child labour than those in the urban areas and less likely to have irregularities in the school attendance. The theoretical base upon which my conceptual framework was drawn from has been summarized in the work of Huebler, (2008). Huebler postulates that the decision to send children to school is influenced by the following factors:

- ✓ Characteristics of the child: age, sex;
- ✓ Characteristics of the parents: presence in the household, age, educational attainment, employment, marital status;
- ✓ Composition of the household: age and sex of the household head, number and age of household members;
- ✓ Location of the household: urban or rural area, geographic region within a country;
- ✓ Characteristics of schools: distance, cost, and quality of education;
- ✓ Characteristics of the economy: share of agriculture, presence of industrial establishments;

  Institutions (legal and other);
- ✓ Social and cultural norms, religious beliefs.

Fig.1 A Model Conceptual Framework showing the relationship between children's working hours and school attendance



Source: Bhalotra & Tzannatos, 1998; DeGraff & Bilsborrow, 1993 and Huebler, 2008

2.5.1 Children's work

Children's work whether economic or domestic is expected to be negatively related to school attendance with or without controls. In other words, as working hours are intensified, it will lead to a decline in children's leisure time and schooling hours. The reason is that children may be tired after work, may be late for school, may not have enough time to learn or perform home works and have irregularities in attendance rates. Also, boys (males) are expected to be more engaged in economic activity or market oriented productivity than girls (females) and vice versa.

Hypothesis 1

Economic child labourers are less likely to attend school compared to non-economic child labourers

2.5.2 Characteristics of head of household

The gender of the head of household is expected to influence schooling outcome. Several studies have shown that children from female headed households are more likely to work and less likely to attend school than children in male headed households (Bhalotra and Tzannatos, 2003). In addition, the relationship of the child to the head of household is very important because children who are living with biological parents are more likely to attend school than those who are living with others who are not parents. The reason for this is that such children will be cared for properly than non related parents. In this study, it is assumed that most of the heads of household are parents of children.

Again, the age of the household head is equally crucial in determining school attendance of children. It is hypothesized that children whose guardians or parents are within the dependency population (65 years and above population) are less likely to attend school. In

other words, as the parent or guardian gets older, they become weak to work and are more likely to influence their older children to support the household income mostly through child labour. In actual fact, the aged are not expected to be engaged in any economic activity because it is assumed that they are weak and cannot work themselves and hence are expected to be cared for by others.

In addition, the number of people in a household determines whether all school going children will be attending school or not. Thus, a larger household size stretches the income of the household and puts pressure on the older ones to either combine school and work or drop out of school to support parents to look after younger siblings. It is therefore, expected that children from smaller household sizes are more likely to be attending school than children from larger households.

Also, educational attainment of heads of household plays an important role in determining children's school attendance. The expectation here is that children whose heads of household have higher education are more likely to attend school as compared to those whose heads of household have no formal education. The point is such household heads have better understanding of the importance of children's education and are less likely to engage children in certain activities that will affect their health, education or development. Besides, heads of households of that calibre are more likely to earn more income to support children's education without any influence on them to support family income through child labour. As a matter of fact, highly educated heads of household are likely to be employed in the formal sector than the informal sector. They are more likely to be engaged in managerial, professional, clerical works and so on which may not necessarily need the assistance of children compared to those in the informal sector who probably may

be selling in the market or farming. Where assistance is needed such people are more likely to employ house helps to take care of their household chores.

Furthermore, household income or wealth is a critical determiner of school attendance. Wealth index quintiles are used as proxies for household income. The underpinning idea behind this issue is that children tend to work to either support their families or schooling due to poverty. Children whose guardians or parents cannot afford to support their education are more likely to drop out of school or may have some sort of irregularities in attendance. As a result of that, it is expected that children from rich households are more likely to attend school than poor households because such families are more likely to afford the cost of schooling of children and cater for their needs.

Hypothesis 2

Children whose parents have higher education are more likely to attend school compared to those whose parents have no primary education.

2.5.3 Characteristics of the child

The age and sex of children greatly influences school attendance. Child labour increases with a rising level of a child's age. That is, as and when children grow, there is the tendency for them to be engaged in more work at home (household chores) or market oriented productions than schooling. For instance, if there are more younger siblings at home, older children are more likely to have their schooling outcomes being influenced in that they will be either engaged in light work at home such as caring for younger siblings and assisting parents on the farm or sale. The sex of the child also plays an important role here. Boys are more likely to be more engaged in an economic work than girls and vice versa.

2.5.4 Location characteristics

The area of residence of the child affects schooling outcomes. It is expected that children from the rural areas are to be less likely to attend school compared to those from urban areas. The reason supporting this assertion is that such children may be coming from poor households, have parents or guardians without formal education or who are engaged in agricultural activities and hence are more likely to either combine education with work or drop out of school because of resource-constraint. Education in such areas may not be attractive to parents or be of high quality compared to urban areas.

On the issue of region, it is expected that children from the northern part of Ghana are less likely to attend school compared to those from the southern part of Ghana. The simple reason behind it is, most of the northern parts of Ghana are considered as rural areas and are mostly engaged in farming activities. Such areas are stricken with poverty and are more likely to afford the cost of education. Education variables are not as attractive as those in the southern Ghana except for a few areas. The combining situation makes it difficult sometimes for children in such regions to attend school regularly.

It is important to note that only the variables considered for the study are interpreted here.

Hypothesis 3

Children who reside in the urban areas are more likely to attend school compared to those in the rural areas.

CHAPTER THREE

METHODOLOGY

3.1 Source of Data

Multiple Indicator Cluster Survey (MICS) data are used for the study. MICS is a household survey program that UNICEF developed to assist member states to gather data to monitor the condition of children and women. These data are used to assess progress towards the goals set at the 1990 World Summit for Children at two points, mid-decade and end-decade. The first round of MICS (mid-decade) was conducted in1995/1996 and the second round (end-decade) of surveys was conducted in 2000. A third round of MICS, conducted in 2005 to 2006, is used to monitor progress towards the Millennium Development Goals (MDGs).

The sample for the 2006 MICS was designed to provide estimates on a large number of indicators of the health status of women, men, and children at the national level, for urban and rural areas, as well as for the 10 administrative regions in the country. A representative probability sample of 6,302 households was selected nationwide. The list of enumeration areas (EAs) from the Ghana Living Standards Survey 5 (GLSS 5) served as a frame for the MICS sample. The frame was first stratified into the 10 administrative regions in the country, then into urban and rural EAs. The MICS 2006 used a two-stage stratified sample design. At the first stage of sampling, 300 census enumeration areas (124 urban and 176 rural EAs) were selected. These are a subsample of the 660 EAs (281 urban and 379 rural) selected for the GLSS 5. The clusters in each region were selected using systematic sampling with probability proportional to their size.

The data include 26,329 household members consisting of 7,452 children between the ages of 5 and 14. It consists of 3,832 males and 3,620 females. Although Ghanaian children start school as early as 5, but only children who fall within the age category 12-14years are considered in the sample of this study. The reason for this age group is that it forms the minimum age for light work according to ILO Convention 138, Art 2. It is at this age that children are regarded quite older to engage partially or fully in an economic activity. The above age group in relation to the school attendance prior to the survey year was used to filter the household data. This reduced the sample to 2204. And after removing all the missing values and Eastern region population from the sample reduced it to 1626 with males constituting 810 and females 816. The Eastern region category did not have a reference category because it recorded zero percent for those who are not attending school.

The MICS household questionnaire used three separate questions to collect information on children's activities: During the past week, did (name) do any kind of work for someone who is not a member of the household? During the past week, did (name) help with housekeeping chores such as cooking, shopping, cleaning, washing clothes, fetching water, or caring for younger siblings? During the past week, did (name) do any other family work (on the farm or in a business)? The second and third questions were used as the measurements of domestic child labour and economic child labour. These were measured in terms of hours engaged in any of the activity, either domestic (household chores) or economic (work on the farm or family business). Again, the questions asked on education include; Did (NAME) attend school last year (2004-2005)? Did (NAME) attend school or pre-school at any time during the previous school year (2004-2005)?

3.2 Analysis

The analysis was carried out at two levels; first a bivariate analysis was carried out to compare response variable (school attendance) with the explanatory variables; child labour and other socioeconomic characteristics. The second stage is a multivariate analysis by the use of a binary logistic regression to examine the relationship between economic and domestic child labour and the likelihood of Ghanaian children attending school while controlling for the effects of the background characteristics. The regression model for the school attendance likelihood is stated as:

3.2.1 Model

School Attendance Likelihood = $\beta_0 + \beta_1$Age_child + β_2Female + β_3Sex_Household_Head + β_4Household_head_Education + β_5Wealth_Index + β_6Economic_Child_labourer + β_7Domestic_Child_labourer + β_8 Rural_Residence + β_9 Region + β_{10}Age_Head + β_{11}Household_size + e

Where:

e=unexplained variance, error term

β_0=Y-intercept

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8, \beta_9, \beta_{10}, \beta_{11}$ = coefficient of respective independent variables

The Maximum Likelihood Estimation Method is used to derive the estimates for β in the model. For each predictor variable, a reference category (RC) is selected from all the available categories. The predictor variables are regressed against the dependent variable using the Enter Method. Each reference category is given the odds ratio 1.000.

3.3 Definition of Variables

3.3.1 Dependent Variable

The dependent variable considered in this study is school attendance. School attendance refers to attendance at the time of the survey or attendance prior to the year of the survey. The variable measures whether the child is currently attending school, with two questions: "Did [NAME] attend school last year (2004-2005)?" and a proxy question, "Did (NAME) attend school or pre-school at any time during the previous school year, that is (2005-2006)?" For the purpose of this paper, the important schooling question was whether the child had attended school in the past twelve months. This was used in preference to the question on whether they had attended school in the last seven days, because the answer to this question could be affected by school holidays or illness. The expected answer to this question is either yes or no. The original measurement is yes for 1 and no for 2. This was re-coded into a dummy variable of 1 for attending school (Yes) and 0 for not attending school (No).

3.3.2 Independent Variable

Child labour is the main independent variable measured against school attendance. This is categorized into two groups, economic and domestic child labour. Generally, child labour is defined by the UNICEF as "A child is considered to be involved in child labour activities at the moment of the survey if during the week preceding the survey the following are observed: Ages 12-14: at least 14 hours of economic work or 28 hours of domestic work per week. This definition allows differentiation between child labour and child work in order to identify the type of work that should be eliminated. For the purposes of measurement complexities, this definition: at least 14 hours of economic work or 28 hours of domestic work per week by children aged 12-14 is used in this study. Children aged 12-14 are more likely to be engaged in child labour (Becker, 1965; Huebler, 2008).

Also, the choice of this age group is due to the fact that the minimum age for "light work" is set at twelve for countries "whose economy and educational facilities are insufficiently developed" (ILO Convention 138, Art. 2). Child labour was sub-grouped into either economic or domestic. Thus, a child who was engaged in an economic activity for 14 hours or more per week was considered as economic child labourer. On the other hand, a child who worked in household chores for 28 hours or more was considered as domestic child labourer. These were re-coded into children either working or not working whether economic or domestic. Children who were child labourers in either economic or domestic were compared with those who are not in order for us to find their relationship to school attendance. Children who fell under the category of child labour are measured as one (1) and two (2) for non child labourers.

3.3.3 Control Variables

While the primary focus of this study is on the impact of child labour on child's schooling, socio-economic and demographic characteristics of the respondents represented the controlled variables such as the age and sex of the child, sex of the head of household, the educational levels of the head of households, type of place of residence, household income and region.

The age category of children that is considered in this study is 12-14 since they are more likely to be engaged in an economic or domestic activity (Becker, 1965). Children 12-14 years engaged in any economic activity (except light work for less than 14 hours per week), or 28 hours or more domestic work per week; 15-17 years for children engaged in any hazardous work. The gender of child was classified into male and female with male scored as one and female two.

The ages for both men and women considered in the study were 15-49 years. The gender of the household head is measured as "1" if male and "2" if female. With regards to educational levels of heads of households, it was based on the highest level of educational attainment which is scored as one if respondent has no formal education, two if primary education and three if secondary or higher. Type of residence is measured as (1) if urban and (2) if rural. The household wealth was measured with wealth index. It is categorized as poorest for (1), second for (2), middle for (3), fourth for (4) and richest for (5). These were re-coded into poor as (1), medium as (2) and rich as (3). The poorest (1) and second (2) of the original were merged as poor as (1), the middle (3) was re-coded as medium for (2) and the fourth (4) and riches (5) were merged as rich for (2). Age of the household head were continuous variable i.e. from 15-97+. These were further categorized in the active and non active population. The active group ranged from 20-64 based on my sample and the non active ranged from 65 and above. Dummies were created for them by measuring active (1) and non active group for (2). Household sizes were also grouped into large and small sizes. Dummies were created for them by measuring small household for (1) and large household for (2). The groupings of the household sizes were based on the mean score of all household sizes. The average score was 6.4 and therefore any household size above this value was considered as large household.

CHAPTER FOUR

DEMGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS OF RESPONDENTS

This chapter presents a description of demographic and socio economic characteristics of respondents, the levels of child labour and school attendance. The sample was made up of children schooling and working presented by age, sex as well as showing the characteristics of their heads of households like age, sex, household size, educational attainment levels, wealth index, area of residence and region.

4.1. Characteristics of the Head of Household

This section examines the demographic characteristics of heads of household studied in the survey.

Table 4.1 below presents information on the sex of the heads of household surveyed in the study area. Roughly seventy-one (71.2) percent of heads of household interviewed are males while almost twenty-nine (28.8) percent are females. The respondents sampled for the study were dominated by males. It is probable that males are more likely to assume heads of household than females. Age was categorized into active population (20-64) and above 65 as the non active population. About 15 percent formed the non active (aged) population who are probably dependants. Whiles almost 86 percent of the population formed the active population who are likely to be taking care of the dependants' population of children and the aged. Household size is grouped into large and small. Most of the children were from the large households and represented 63.2 percent of the population. Only 36.8 percent were from small households.

Table 4.1 Frequency and percentage distribution of characteristics of head of household

SEX	**FREQUENCY**	**PERCENT**
Male	469	28.8
Female	1157	71.2
AGE		
20 – 64	1390	85.5
65+	236	14.5
HOUSEHOLD SIZE		
Small	598	36.8
Large	1028	63.2
EDUCATIONAL LEVEL		
No education	698	42.9
Primary	183	11.3
Middle/JSS	501	30.8
Secondary +	244	15.0
WEALTH INDEX		
Poor	730	44.9
Medium	310	19.1
Rich	586	36.0
RELATION TO HEAD		
Wife/Husband	2	0.1
Son or Daughter	1242	76.4
Son/Daughter in law	2	0.1

Grandchild	186	11.4
Brother or sister	24	1.5
Brother/ Sister in law	5	0.3
Other relative	110	6.8
Adopted/foster/stepchild	31	1.9
Not related	24	1.5
TOTAL	**1626**	**100**

Source: MICS, 2006

The level of education of respondents is very crucial in such a study. The educational attainment of heads of household were grouped into no education, Primary, Junior Secondary and Senior Secondary and higher. Increased educational attainment of the household head is assumed to be linked to increased school attendance rates of children. This link can work through two channels: educated adults are more likely to recognize the value of education and to send the children in their care to school, and they are more likely to have higher incomes, which would give them the means to afford education for the children in their household. About 43 percent of children sampled had heads of household without any formal education. Approximately thirty-one (30.8) percent of them had household heads with middle school/ Junior Secondary School education. Only 15.0 percent had Senior secondary and above education (tertiary). Household heads who have primary education was the smallest representing 11.3 percent.

Furthermore, socio-economic status of heads of household is very important in this study in that children's school attendance depends on it. Therefore knowing the economic status of heads of household will assist in establishing the relationship of children's school

attendance and their hours of working. Wealth index quintile is used as a measure of socio-economic status or household income of heads of household. It can be observed from Table 4.1 above that poor households have the highest proportion of the children sampled constituting a percentage of 44.9, which is followed by the rich category forming 36 percent. The medium category of households in the wealth quintile had the lowest figure with only 19.1 percent.

Also, relationship of children to their head of household is exhibited in the table above. It is presumed that most of the children are being taken care of by their parents. The results above really show that parents form the majority of the heads of household representing 76.4 percent. However, the focus of the study in not necessarily on parents as heads of household but to establish the fact that children of age group 12-14 are taking care of by their biological parents or guardians.

4.2 Characteristics of children

Children were categorized into males and females and only 12-14 year groups were considered for the study. Table 4.2 below gives the percentage distribution of age and sex of children. Most of the children were in the age category 12 representing 39.4 percent whiles age 14 happens to be the minimum sample size of 29.3 percent. The mean age happens to be age 13 with a percentage value of 29.9. In addition, there wasn't much difference between the males and females. The percent of the males stood at 49.8 closely preceding that of the females at 50.2. School attendance is expected to rise or fall with age, while child labour is likely to increase with age. Males are more likely to be in school than females due to gender discrimination. Females appear to have a slightly higher likelihood of working, once household chores are taken into consideration.

Table 4.2 Frequency and percentage distribution of child's characteristics

AGE	**FREQUENCY**	**PERCENT**
12	640	39.4
13	510	31.4
14	476	29.3
SEX		
Male	810	49.8
Female	816	50.2
TOTAL	**1626**	**100**

Source: MICS, 2006

4.3 Characteristics of location

The area of residence refers to whether respondents live in an urban or rural area. Urban children are usually more likely to be in school and less likely to work than rural children. Children living in urban areas may benefit from a better developed education infrastructure. Most rural areas are largely agricultural areas and children from such areas are not only less likely to live close to a school, they are also more likely to be employed on a farm. Almost sixty-one (61) percent lived in the rural areas compared to the urban dwellers (39.4) percent. This indicates that a larger proportion of the children sampled reside in the rural areas.

Table 4.3 Frequency and percentage distribution of characteristics of location

AREA OF RESIDENCE	**FREQUENCY**	**PERCENT**
Urban	640	39.4
Rural	986	60.6
REGION		
Western	179	11.0
Central	130	8.0
G. Accra	225	13.8
Volta	127	7.8
Ashanti	263	16.2
Brong Ahafo	152	9.3
Northern	199	12.2
Upper East	216	13.3
Upper West	135	8.3
TOTAL	**1626**	**100**

Source: MICS, 2006

Ghana has 10 administrative regions and there are some variations in these regions. These differences may be due to socio-economic, cultural or demographic factors and may have some level of influence on children's engagement in work and their level of school attendance. Table 4.3 above shows the percentage distribution of children within the age group of 12-14 who are captured in the sample by region. From the table it is clear that Ashanti and Greater Accra regions have the largest proportion of children sampled for the study with 16.2 and 13.8 percent respectively. The region with the least proportion is Volta (7.8) percent followed by Central with 8 percent. The regions with inadequate

educational infrastructure are more likely to have schooling problem because of fact that education will not be attractive to children and parents. Regions that have certain socio-cultural beliefs are likely to have low school attendance especially for the girl child.

4.4 Children's working status (economic or domestic work)

Children's working status either economic or domestic was grouped into child labour and non child labour. The standard measurement of this variable is that used by UNICEF, that is, children of age 12-14 who are engaged in an economic work such as farming or sales of family business for 14 hours per week. Table 4.4 gives the frequency and percentage distribution of both economic child labour and non economic child labour. The distribution shows that about 329 of children within the ages of 12-14 out of 1626 are engaged in economic child labour as against 1297 who are not child labour. The percentage distribution of those affected by economic child labour is 20.2 and that of children who are not affected is 79.8 percent.

Apart from that, children who were engaged in domestic work such as sweeping, fetching water, cooking and so on who work for twenty-eight (28) hours or more constituted the child labour category (ILO/UNICEF, 2001). From table 4.4, children who were in domestic child labour were 73 out of 1626 with only 4.5 percent compared to non-domestic child labour with 1553 out of the 1626 with a percentage value of 95.5.

The picture that this statistics paints is that most children in Ghana are not engrossed so much in domestic or household chores.

Table 4.4 Frequency and percentage distribution of children's working status

ECONOMIC WORK	FREQUENCY	PERCENT
Non child labour	1297	79.8
Child labour	329	20.2
DOMESTIC WORK		
Non child labour	1553	95.5
Child labour	73	4.5
TOTAL	**1626**	**100**

Source: MICS, 2006

4.5 School Attendance

The total population of children who were within the ages 12-14 and enrolled in school were 1626. Out of this number, only 4.2 percent were not attending school. A larger proportion of these children were attending school prior to the survey year. It is presumed that those who were not attending school were being affected by some factors such as child labour.

Table 4.5 Frequency and percentage distribution of children's school attendance

SCHOOL ATTENDANCE	FREQUENCY	PERCENT
Yes (Attending)	1558	95.8
No (Not attending)	68	4.2
TOTAL	**1626**	**100**

Source: MICS, 2006

CHAPTER FIVE

RELATIONSHIP OF SOCIO-ECONOMIC AND DEMOGRAPHIC VARIABLES AND CHILDREN'S SCHOOL ATTENDANCE IN GHANA

This chapter presents the results obtained from the relationship between child labour (economic and domestic) and some demographic and socio-economic variables of respondents on school attendance, and discusses the relevance of the effects of child labour on education. Description of the cross tabulation results were analyzed based on the relationships of the explanatory variables to that of the response variable in the literature. Previous studies display some similarities and differences of children's schooling and child labour as well as the influence of some socio-economic and demographic variables.

5.1 Sex of household head

Several studies (Bhalotra and Tzannatos, 2003; Ray, 2000) have hypothesized that children from female headed households are more likely to work than to go to school. However, Patrinos and Psacharopoulos (1995) showed a negative correlation in the aforementioned hypothesis in their study in Paraguay.

Table 5.1 Percentage distribution of children's school attendance by sex of household heads

Gender of head of household	School Attendance		Total	Number
	Yes	No		
	Percent	Percent		
Male	96.6	3.4	100	469
Female	95.5	4.5	100	1157
Total	**1558 (95.8)**	**68 (4.2)**	**100**	**1626 (100)**
χ^2 = 0.977, df = 1		**Significance level (0.323)**		

Source: MICS, 2006

In the above Table 5.1, the sex of household head did not show much difference in the level of school attendance. Children from female-headed households have 95.5 percent chance to attend school than those from male-headed households (96.6 percent), yet sex of household head was not significant in this study. Although there were some variations between the sexes, but the difference was not so much because the results tell us that children from female-headed households are equally to attend school.

5.2 Age of household head

Children from the active population were more likely to attend school than those from the non-active population. From table 5.2, children whose parents are aged have 5.1 percent less chance to attend school compared to those with younger parents (4.0 percent). It was expected that non-active population represented the aged (65+) and are found in the dependency population with the children under study. It is therefore assumed that children

whose heads of household are older were not likely to attend school because their parents or guardians are not likely to invest in the education because of financial strain.

Table 5.2 Percentage distribution of children's school attendance by age of household head

Age	School Attendance		Total	Number
	Yes	No		
	Percent	Percent		
20-64	96.0	4.0	100	1334
65+	95.8	5.1	100	224
Total	**1558**	**68**	**100**	**1626**
χ^2 = 0.561, df = 1		**Significance level (0.454)**		

Source: MICS, 2006

5.3 Household size

Household size was categorized into small and large based on the mean of all households. The average number of household size was 6.4. This figure was the cut off point for the categorization. It is observed that children from large households were less likely to attend school than those from small households. In table 5.3, children from small families stand 96.3 percent chance to attend school compared to children from large families (95.5 percent). It is expected that children from large households compared to small households are less likely to attend school because larger family size places financial burden on the household income. This situation will force older children in the family to work in order to release the financial strain in the household.

Table 5.3 Percentage distribution of children's school attendance by household size

Household size	School Attendance		Total	Number
	Yes	No		
	Percent	Percent		
Small	96.3	3.7	100	576
Large	95.5	4.5	100	982
Total	**1558**	**68**	**100**	**1626**
χ^2 = 0.597, df = 1		**Significance level (0.440)**		

5.4 Educational level of household head

Children from heads of household with higher educational attainment were expected to report higher school attendance rate. The results in table 5.4 indicate that children whose parents have higher education have 98.0 percent chance to attend school than those whose parents have no education (93.6 percent). The results for parents with primary and middle or Junior Secondary School education did not show much difference 97.3 and 97.4 percents respectively. Heads of household with higher educational attainment are likely to be more knowledgeable and recognize the importance of education and its future benefits to the child and hence see the need to send the child to school more than work. This hypothesis was tested by using the Chi-test statistics at the significance levels of 99% and 95%.

Table 5.4 Percentage distribution of children's school attendance by the educational level of household head

Educational level	School Attendance		Total	Number
	Yes	No		
	Percent	Percent		
No education	93.6	6.4	100	698
Primary	97.3	2.7	100	183
Middle/JSS	97.4	2.6	100	501
Secondary+	98.0	2.0	100	244
Total	**1558**	**68**	**100**	**1626**
χ^2 = 15.816, df = 3		**Significance level (0.001)**		

Source: MICS, 2006.

The Chi-square Test indicated a strong relationship between children's school attendance and the educational level of heads of household with a significance level of 0.000 and 0.001 for both 95 and 99 percents confidence intervals respectively. This result is related to theoretical and empirical studies conducted. It is hypothesized in the literature that low parental educational attainment directly contributes to underinvestment in schooling and increased practice of child labor (Boozer and Suri, 2001).

5.5 Wealth Index of Household (Household Income)

The wealth index of a household is a good predictor of whether a child will attend school or not because of the cost associated with children's schooling. For the purposes of the study, wealth index is used as a proxy for household income of a family. Hence, wealth index and household income of households may be used interchangeably in the study. Several theoretical and empirical studies dwell on this variable to predict whether a child

will go to school or work. The reason is that poverty is mostly determined by the income and resources of a household and due to this it may hinder the investment in schooling, or compel the practice of child labor, or both (Basu and Van, 1998). Results in Table 5.5 below suggest that children from poor households are less likely to attend school. The percentage of children from the rich households (98.0 percent) stand the chance of attending school compared to middle (97.7 percent) and poor (93.3 percent) households respectively. In other words, poor households recorded the highest percent (6.7) of children not attending school from medium and rich households (2.3 and 2.0) following respectively. These relationships are similar to that of educational level of heads of household observed earlier on. Perhaps it may be attributed to the fact that parents with higher education are more likely to earn a higher income compared to those who have no education. Also, parents who are educated are more likely to be knowledgeable and recognised the importance of investing in a child's education.

Table 5.5 Percentage distribution of children's school attendance by the wealth index of household

Wealth Index	**School Attendance**		**Total**	**Number**
	Yes	**No**		
	Percent	**Percent**		
Poor	93.3	6.7	100	730
Medium	97.7	2.3	100	310
Rich	98.0	2.0	100	586
Total	**1558**	**68**	**100**	**1626**
$\chi 2 = 21.188$, df = 2		**Significance level (0.000)**		

Source: MICS, 2006

5.6 Child's Age

The age of the child is a good demographic variable to determine education variables. As said earlier on the age category considered for the study is children within the ages of 12-14 who are engaged in some form of work either domestic or economic and are schooling at the same time. Those who have never attended school were excluded from the sample. The theoretical base for this age group is that such children are more likely to start performing some light work as well as engaged in the labour market. Older children are expected to be engaged in the labour market and are more likely to combine schooling and work or drop out (Patrinos & Psacharopoulos, 1995; Emerson & Souza, 2002).

Table 5.6 Percentage distribution of children's school attendance by child's age

Child's age	School Attendance		Total	Number
	Yes	No		
	Percent	Percent		
12	96.2	3.8	100	640
13	95.9	4.1	100	510
14	95.2	4.8	100	476
Total	**1558**	**68**	**100**	**1626**
χ^2 = 0.805, df = 2		**Significance level (0.669)**		

Source: MICS, 2006

In Table 5.6, the percentage differential of children attending school or not attending school is less than 1.0 percent for all the ages. A careful observation of the figures in table shows that age is negatively correlated with schooling. This is a clear indication that as age increases, children's schooling also declines in a proportionate rate with probably of

an increasing rate in work. Children's age and school attendance was not significant (0.669) at a 90% confidence interval.

5.7 Sex of Child

From the table below, sex difference between male and female children was not significant but there was a slight percentage margin between the males and females (96.2) against (95.5) respectively. This implies that males who are attending or not attending school is almost about the same size of that of the females. The cultural norms of a country are believed to have influence on the work that males and females do. The difference in the nature of work that both males and females perform also influences their schooling.

Table 5.7 Percentage distribution of children's school attendance by sex of child

Sex of child	**School Attendance**		**Total**	**Number**
	Yes	**No**		
	Percent	**Percent**		
Male	96.2	3.8	100	810
Female	95.5	4.5	100	816
Total	**1558**	**68**	**100**	**1626**
χ^2 = 0.507, df = 1		**Significance level (0.476)**		

Source: MICS, 2006

5.8 Type of area of residence

Most empirical studies (Bhalotra and Tzannatos, 2003; Heady, 2000) suggest that a large proportion of the incidence of child labour exists in the rural areas as compared to the urban areas. The underlying assumption surrounding this hypothesis is that most of the

rural areas are stricken with poverty. The harsh economic situation prevailing in the rural areas compel parents to send their children to work rather than to school. Others like Basu and Pham (1998), attribute the inability of children to go to school to the economic activity of parents. To them, most parents or guardians in the rural areas are engaged in subsistence farming and this kind of agricultural activity involves a lot of hands. As a result, older children mostly are engaged on the farm in order to support the household income. This hypothesis is evident in the Table 5.8 below. Children residing in the rural areas have 5.5 percent less chance of attending school compared to children in the urban areas (2.2 percent). In other words, a proportion of 97.8 percent of children residing in the urban areas attended school as compared to 94.5 percent of rural children. The results confirms the hypothesis because the Chi-square Test were significant at both 95% and 99% showing 0.000 and 0.001 respectively.

Table 5.8 Percentage distribution of children's school attendance by the area of residence

Area of residence	**School Attendance**		**Total**	**Number**
	Yes	**No**		
	Percent	**Percent**		
Urban	97.8	2.2	100	640
Rural	94.5	5.5	100	986
Total	**1558**	**68**	**100**	**1626**
χ^2 = 10.478, df = 1		**Significance level (0.001)**		

Source: MICS, 2006

5.9 Place of residence by Region

Regional differences in school attendance may be due to cultural, socio-economic, and lack of infrastructural development in education. Regions such as Greater Accra, Central and Ashanti are expected to do better in educational variables compared to Upper East and West, Northern and Volta. Table 5.9 showed a strong relationship between children's school attendance and region. The region with the largest proportion of children not attending school is Upper West with a proportional percentage of 10.4 followed by Volta (6.3) and Northern (6.0) respectively as compared to Central and Ashanti regions with 0.8 percent and 1.5 percent respectively. The possible explanation for this may be due to occupation differentials. Most of the parents from the northern part of Ghana are predominantly farmers and are more likely to engage their children in farming activities. Likewise, in the Volta region children may be engaged in fishing since their major pre-occupation is fishing. Central region recorded the highest percent of school attendance with a 99.2 percent in attendance. The educational facilities in the region may probably account for this.

Table 5.9 Percentage distribution of children's school attendance by region

Region	School Attendance		Total	Number
	Yes	No		
	Percent	Percent		
Western	97.8	2.2	100	179
Central	99.2	0.8	100	130
Greater Accra	96.4	3.6	100	225
Volta	93.7	6.3	100	127
Ashanti	98.5	1.5	100	263
Brong Ahafo	96.7	3.3	100	152
Northern	94.0	6.0	100	199
Upper East	94.4	5.6	100	216
Upper West	89.6	10.4	100	135
Total	**1558**	**68**	**100**	**1626**
χ^2 = 27.678 , df = 8		**Significance level (0.001)**		

Source: MICS, 2006

The disparities that exist among the regions may also stem from the large population sizes. Most regions with a large population size may have the larger portion of the educational facilities thereby making education more attractive in these regions.

5.10 Economic and Domestic Work

Table 5.10 describes the relationship between the child's engagement in both economic and domestic work and school attendance. It was hypothesized that children who spend more hours in an economic work are less likely to attend school. This was tested by the use of chi-square at the significance levels of 99% and 95%. The test showed that there is a strong relationship between economic child labour and school attendance. The more hours children are engaged in an economic activity, the less likely that they will attend school.

This finding corroborates Patrinos and Psacharopoulos's (1995) study that school attendance and child labour (economic) were negatively correlated in that factors led to a rise in child labor also contributed to an increased chance of school repetition, drop out and decreased school attendance.

In contrast, children who spend more hours performing household chores such as sweeping, fetching water, caring for younger siblings and so on are less likely to have a reduced rate of school attendance. From the table below, domestic child labour is negatively related to children's school attendance. Although, a small proportion of children (4.5 percent) are affected by domestic child labour yet the results it produces is similar to that of economic child labour. This is an indication that irrespective of the number of children involved, children's working hours clearly is related to the rate of their school attendance. This is significant at the 90% confidence level.

Table 5.10 Percentage distribution of children's school attendance by economic & domestic work

	Attending school **Percent**		**Not attending school** **Percent**	
	Economic	**Domestic**	**Economic**	**Domestic**
Non child labour	97.1	96.9	2.9	3.1
Child labour	91.8	91.5	8.2	8.5
Total	**1558**		**68**	

Source: MICS, 2006 Significance level: Economic (0.000); Domestic (0.078)

CHAPTER SIX

THE INFLUENCE OF CHILDREN'S WORKING STATUS ON SCHOOL ATTENDANCE IN GHANA

This chapter shows the results of the regression analyses conducted to examine the influence of child's working status on school attendance. In order to control for the influence of socio-economic and demographic variables on the dependent variable, four separate models were run. The first model considers the effect of children's economic work status on school attendance. In the second model all the other socio-economic and demographic variables are added to the economic work variable to see its effect on school attendance. This is done to find out whether other factors really influence school attendance likelihood aside from children's economic work status (child labour). In the third model, only children's domestic work status was run against school attendance whiles model 4 includes all the other demographic and socio-economic variables to the model to check the effect on the dependent variable.

The underlying assumption of logistic regression model is that it presumes that each member of the population has some probability of success on the dependent variable. For instance, based on the sample size used for the study, an individual child has the chance or probability of attending or not attending school, all other things being equal. In the binary logistic regression model, a positive beta co-efficient (β) shows the likelihood increase in the status in question relative to the reference category and vice versa. This logistic regression method recognizes the first category under each independent variable as the reference category to which all other categories are compared. For the outcome variable, the first category is used as the reference category.

6.1 Characteristics of binary logistic models

Table 6.1 below presents the first model of the analysis which seeks to look at the relationship between the economic work and school attendance likelihood. The Nagelkerke R squared that explains the variation between the independent and dependent variables is 0.034. The overall model's significance was 0.000. This implies that 3.4 percent of the variation in school attendance likelihood is being explained by the predictor variable. The 96.6 percent is explained by other factors. Also, the likelihood ratio test showed economic child labour as a significant predictor of school attendance with a significance level of 0.000.

Table 6.2 presents the second model which shows that with the inclusion of demographic and socio-economic variables, economic child labour remains a significant determinant of children's school attendance. The overall model significance was 0.000 with a Nagelkerke value of 0.109 signifying that 10.9 percent of the variation in school attendance was explained by the predictor variables.

Table 6.1 The binary logistic model showing the effect of Children's Economic Work status on school attendance

Characteristics	**School Attendance**		
	Nagelkerke R^2 = 0.034		
	Co-efficient B	**Significance (P-value)**	**Odds Ratio [Exp(β)]**
Intercept	3.448	0.000	31.425
Economic Work			
Non Child labour (RC)	-	-	1.000
Child labour	-1.073	0.000	0.342

Source: Computed from MICS, 2006 Significant at $\alpha<0.01$ RC – Reference category

Table 6.2: The binary logistic model showing the relationship of economic Child labour and other socio-economic and demographic variables on school attendance

Characteristics	School Attendance		
	Nagelkerke R^2 = 0.109		
	Co-efficient B	Significance (P-value)	Odds Ratio [Exp(β)]
Intercept	**6.251**	**0.004**	**518.284**
Economic Work			
Non Child Labour (RC)	-	-	1.000
Child Labour	-0.631	0.022	0.532
Sex of Head of Household			
Male (RC)	-	-	1.000
Female	-0.314	0.292	0.731
Age of household head			
20 – 64	-	-	1.000
65+	-0.140	0.685	0.870
Household size			
Small (Below 6)	-	-	1.000
Large (Above 6)	-0.059	0.832	0.943
Educational level of head			
No education (RC)	-	-	1.000
Primary	0.624	0.220	1.865
Middle/JSS	0.408	0.283	1.504
Secondary+	0.684	0.213	1.982
Wealth Index			
Poor (RC)	-	-	1.000

Medium	0.697	0.135	2.008
Rich	0.785	0.146	2.192
Child's Age			
12 (RC)	-	-	1.000
13	-0.098	0.753	0.907
14	-0.370	0.229	0.691
Child's Sex			
Male	-	-	1.000
Female	-0.281	0.273	0.755
Area of residence			
Urban (RC)	-	-	1.000
Rural	-0.371	0.381	0.690
Region			
Western (RC)	-	-	1.000
Central	1.204	0.287	3.334
Greater Accra	-1.203	0.080	0.300
Volta	-0.900	0.160	0.407
Ashanti	0.292	0.686	1.339
Brong Ahafo	-0.144	0.835	0.866
Northern	-0.457	0.459	0.633
Upper East	-0.236	0.704	0.790
Upper West	-0.819	0.186	0.441

Source: Computed from MICS, 2006 Significant at $\alpha<0.05$ RC – Reference category

The third model of the analysis shows the relationship of domestic work and school attendance likelihood. This model demonstrated that there is an association between domestic child labour and school attendance likelihood at a 90% significance level. This is related to the chi-square test of significance. Although there is an association between the predictor and the response variable the association is not so strong as compared to the model 1. The Nagelkerke R-squared was 0.005. This implies that only 0.5 percent of the variation in school attendance likelihood was being explained by the domestic work.

The fourth model showed a very weak association between the predictor variable and response variable. In other words, after controlling for the background characteristics, domestic work was no longer explaining the variation in school attendance. The significance level was 0.349 at an alpha value of 0.05. This may be that other explanatory variables in the control variables were stronger in explaining the variation than the domestic work. The overall significance level was 0.000 with Nagelkerke value of 0.101. The implication of this value is that only 10 percent of the variation in school attendance likelihood is explained by the predictor variable.

Table 6.3: The binary logistic model showing the effect of Children's Domestic Work status on school attendance

Characteristics	**School Attendance**		
	Nagelkerke R^2 = 0.005		
	Co-efficient B	**Significance (P-value)**	**Odds Ratio [Exp(β)]**
Intercept	**3.180**	**0.000**	**24.048**
Domestic Work			
Non Child labour (RC)	-	-	1.000
Child labour	-0.767	0.085	0.464

Source: Computed from MICS, 2006 Significant at $\alpha<0.1$ RC – Reference category

Table 6.4: The binary logistic model showing the relationship of economic work and other socio-economic and demographic variables on school attendance

Characteristics	School Attendance		
	Nagelkerke R^2 = 0.101		
	Co-efficient B	Significance (P-value)	Odds Ratio [Exp(β)]
Intercept	**6.344**	**0.003**	**568.832**
Domestic Work			
Non Child Labour (RC)	-	-	1.000
Child Labour	-0.436	0.349	0.647
Sex of Head of Household			
Male (RC)	-	-	1.000
Female	-0.345	0.297	0.708
Age of Head			
20 – 64	-	-	1.000
65+	-0.104	0.761	0.901
Household size			
Small (Below 6)	-	-	1.000
Large (Above 6)	-0.060	0.827	0.941
Educational level of head			
No education (RC)	-	-	1.000
Primary	0.652	0.198	1.919
Middle/JSS	0.395	0.298	1.484
Secondary+	0.730	0.182	2.076
Wealth Index			
Poor (RC)	-	-	1.000

Medium	0.761	0.098	2.140
Rich	0.868	0.099	2.383
Child's Age			
12 (RC)	-	-	1.000
13	-0.112	0.719	0.894
14	-0.395	0.198	0.674
Child's Sex			
Male	-	-	1.000
Female	-0.264	0.301	0.768
Area of residence			
Urban (RC)	-	-	1.000
Rural	-0.469	0.258	0.626
Region			
Western (RC)	-	-	1.000
Central	1.232	0.276	3.428
Greater Accra	-1.237	0.072	0.290
Volta	-0.920	0.149	0.398
Ashanti	0.257	0.722	1.293
Brong Ahafo	-0.247	0.720	0.781
Northern	-0.521	0.397	0.594
Upper East	-0.297	0.630	0.743
Upper West	-0.924	0.132	0.397

Source: Computed from MICS, 2006 Significant at $\alpha<0.05$ RC – Reference category

6.2 Description of binary logistic model results

From the model 1, it can be observed that economic child labourers are 66 percent less likely to attend school as compared to non economic child labourers. However, when other demographic and socio-economic variables are controlled for in the model 2, economic child labourers still have about 47 percent lesser chance of attending school than non economic child labourers.

The results of Model 2 show that after controlling for the demographic and socio-economic variables, children in female-headed households have 27 percent less probability of attending school than children in male-headed households. Again, children whose heads of household are 65 years and above have about 13 percent lesser chance of attending school than their counterparts in the reference category. Children from larger household sizes are 0.943 times as likely to attend school as those from smaller households.

On the issue of educational attainment of head of household, children whose parents or guardians have secondary and higher education are about two times as likely to attend school compared to those whose parents or guardians are uneducated. Likewise, those whose parents or guardians have primary education are about two times as likely to attend school as those whose parents have no education. However, children whose heads of household have attained middle education have 1.504 times of attending school compared to those whose heads of household have no formal education.

With regards to wealth index quintile which is used for household income, children who come from medium and rich households are about two times as likely to attend school as those from poor households.

Children who are 13 and 14 years old are 0.907 and 0.691 times as likely to attend school compared to the reference category respectively. Female children have about 25 percent less likelihood to go to school compared to males.

Also, children who reside in the rural areas are 31 percent less likely to attend school compared to urban dwellers. Children in the Central region are three times as likely to attend school as those in the Western region. The three northern regions (Northern, Upper East and West) are 0.633, 0.790 and 0.441 times as likely to attend school as compared to those in the Western region. Likewise, children from the Greater Accra have 70 percent less probability of attending school as compared to Western region. However, children from Ashanti region have about 34 percent more chances of attending school than Western region children.

The models 3 and 4 show the influence of domestic work on school attendance likelihood both without and with controls. When there are no controlled variables, domestic child labourers have about 54 percent less chance of attending school than non domestic child labourers. Nevertheless, with controls, domestic child labourers have about 35 percent less likelihood of attending school than non domestic child labourers.

Now, when the demographic and socio-economic variables are controlled, the results in the model 4 are as follows. Children from female-headed households are 0.708 as likely to attend school as male-headed households. Besides, children whose heads of household are older (65 and above) are 0.901 as likely to attend school as those whose heads of household are below the age of 65years. Moreover, compared to smaller households, children from larger household sizes have about 16 percent less chance of attending school.

Furthermore, as far as educational level of heads of household is concerned, children whose parents or guardians have secondary and above education are two times as likely to attend school compared to those whose parents have no education. Also, children whose parents or guardians have primary education stand a better chance of attending school than those whose parents or guardians have no education. Such children are 92 percent and 48 percent more likely to attend school than those whose parents or guardians have no formal education respectively.

In addition, children who dwell in medium and rich households are two times as likely to attend school compared to those who come from poor households.

Children of age 13 and 14 years are 0.894 and 0.674 as likely to attend school as those who are 12 years old. Female children have about 23 percent less chance of attending school compared to males.

Apart from that, children who live in rural areas and are engaged in domestic work are 0.626 as likely to attend school as compared to the urban residents. Children in the Central and Ashanti regions who are engaged in domestic work are 3.428 and 1.293 times as likely to attend school as those in Western region. Children who reside in the three parts of the northern Ghana (Northern, Upper East and West) have 0.594, 0.743 and 0.397 times as likely to attend school as compared to those in the Western region. However, children in the Greater Accra region have about 71 percent less probability of attending school than those in the Western region.

CHAPTER SEVEN

DISCUSSION, CONCLUSION AND RECOMMENDATION

7.1 Economic and Domestic Work

The results of the study at both bivariate and multivariate level indicate that there is a strong association of economic child labour and school attendance. It is significant at an alpha level of 0.01 by using the chi-square test of significance. At the multivariate level, economic child labour shows a marginal effect on children's school attendance when there is no control of the other predictor variables. This is indicated in the model one of the analysis. In the model two, where there are controls of the demographic and socio-economic variables, economic child labour still has a substantial effect on school attendance. In fact, it is the only variable of all the explanatory variables that tested significant in the model. It is a clear indication that children's economic work greatly has an impact on their education. This finding truly confirms the hypothesis that economic child labourers are less likely to attend school than non economic child labourers.

However, domestic child labour was significant at the 90 percent level in the chi-square test of significance indicating that there is an association between children's domestic work and school attendance. But when domestic work was regressed on school attendance at the multivariate level, it indicated a slight association without the control of other predictor variables in the model three. Yet when other predictor variables were controlled for, it was not significant but the pattern clearly indicated that there is a relationship between domestic work and school attendance. It seems almost all the children in the sample were engaged in domestic work at home than economic work because only 4.5

percent of them were domestic child labourers as against 20.2 percent children who were economic child labourers.

Also, it can be realised that children who were economic labourers were more likely to have their education being influenced negatively compared to domestic labourers. In other words, economic child labourers are less likely to attend school or have irregularities in their school attendance than domestic child labourers. The percentages indicated above shows that there are appreciable numbers of children who are engaged in child labour in one form or another. This statistics is consistent with other studies done in most developing countries (Heady, 2000; Bhalotra & Tzannatos, 2003; Patrinos & Psacharopoulos, 1995; Canagarajah & Coulombe, 1999; Moyi, 2006; Ray and Lancaster, 2004). The findings clearly support the fact that child labour irrespective of the kind of work interferes with children's education. In other words, school attendance declines as a result of longer hours engaged in work. Canagarajah and Nielsen, 1999 found that children are not able to perform their home work or pay proper attention at school because of fatigue. The result reveals that working hours has a statistically significant negative relationship with school attendance.

7.2 Children characteristics

7.2.1 Age & Sex of child

With regards to children's characteristics, it can be observed that the age of the child is related to school attendance. Older children are less likely to attend school because they are mostly affected by child labour than younger ones. Although child's age does not test significant but the pattern clearly shows that age is associated with child labour. It is realised that 13 and 14-year-old children are less likely to attend school than the 12-year-

old because child labour increases with age. This finding conforms to theory and is related to other empirical studies (Patrinos and Psacharpoulos, 1995; Emerson and Souza, 2002). For instance, in Peru and Pakistan, Ray (1998) found out that work participation rates increased with age and subsequently reduced school attendance rates. In a nutshell, school attendance rate is higher for younger children than older ones because age 12 is the transition point where the child is officially expected to have assumed responsibility of performing 'light work'.

On the issue of sex of the child, girls are mostly less likely to go to school than boys. Also, it was expected that boys would not attend school compared to girls if the work involved is an economic activity. But the results in the model two did not meet this expectation. It rather shows that girls still had lesser chance of attending school even if the work were an economic activity. Nevertheless, where domestic work was involved, girls were less likely to attend school than boys. This outcome really met the expectation of the study. It is however, speculated that children's sex is associated with their gender roles in most African societies. These roles are mostly biased against females. In most African traditional societies, girls are mostly assigned to domestic work in a form of socialization than boys. Culturally, girl-children in Ghana are ascribed various roles and responsibilities which have an effect on their schooling. As observed in the 1992 GLSS report, girls are over-burdened at least 20% of their time more than boys. The result is that girls are more likely to be dropped out of school than boys. In situations where the level of household income is low, decisions on who should go to school favour the boy. Also, boys are perceived to have better returns to school in the future than girls and therefore parents or guardians are more likely to educate their boys than girls. Again, girls are more likely to be engaged in light economic work such as selling with their mothers to support the

household income (Bhalotra and Heady, 2000). In addition, studies have found that in Ghana, as in other sub-Saharan African countries, girls' school enrollments and educational attainments are more likely than boys' to be compromised by high fertility and poverty (Lloyd & Blanc 1996; Lloyd & Gage-Brandon 1994).

7.3 Characteristics of head of household

7.3.1 Sex of household head

Children from female-headed households showed a negative co-efficient indicating that such children are less likely to attend school. This finding supports the hypothesis that children of female-headed households are more likely to work and less likely to be in school. For instance, in Paraguay, Patrinos and Psacharopoulos (1995) found out that children from female-headed households were less likely to attend school. The reason could be that women are less economically empowered than men and may be more affected by poverty.

Children's relationship to household head is important in this study. The relationship of household head to members of the household is complex in most Sub-Saharan countries like Ghana. For instance, most heads of household may consider their nephews, nieces, sons/daughters-in-law and biological sons and daughters as their own children (Bhalotra and Tzannatos, 2003). Again, child fostering and orphans are quite prevalent in Sub-Saharan Africa. The assumption for the head of household is that, decision making in the household may be greatly dependent on the head and if parents happen to be heads of families, there is the tendency that biological children will attend school than participating in work. It must be noted that most of the household heads in the study were the biological parents of the children. They constituted about 76.4 percent of the sample. Due to this, heads of household were either considered as parents or guardians of the children.

It must, therefore, be emphasized that heads of households are used interchangeably with either parents or guardians. Apart from that, children's relationship to the head was not included in the model because of inconsistencies or errors in the data. They were only shown at the univariate stage of the analysis (see appendix 1).

7.3.2 Age & Family size

The age and the household size both had a negative relationship with school attendance likelihood. Children whose parents or guardians were above 64 years were less likely to attend school. The reason could be that such household heads are dependants and are less likely to provide children's schooling cost. Children living with the non active (aged) population are more likely to be forced into the labour market in order to support the household needs. With respect to the household size, larger households are more likely to have financial constraints and hence are less likely to support children's education. Patrinos and Psacharopoulos (1997) add that children from larger households are more likely to work as a result of inadequate resources.

7.3.3 Educational Attainment

Although educational attainment was not significant at the multivariate level, the pattern clearly indicates an upward trend for school attendance likelihood. In other words, children whose parents or guardians have some level of formal education were more likely to attend school. It is postulated that children of parents with higher education are more knowledgeable and know the future returns of education. They are more likely to have knowledge about the side effects or the health hazards posed by child labour. Besides, such parents are more likely to have a better socio-economic status and are likely to afford the cost of schooling for their children. The result confirms the hypothesis that children

whose parents or guardians have secondary and above education are more likely to attend school than those whose parents or guardians have no education. This finding is consistent with a similar study conducted in Ghana by Canagarajah and Coulombe, in 1997. They found out that boys and girls whose fathers had attained secondary education were negatively related to work participation and positively related to school attendance whilst those whose mother had no education had no effect. Moreover, the result confirms other empirical studies (Boozer and Suri, 2001; Bhalotra & Heady, 2003; Cigno & Rosati, 2000; Patrinos & Psacharopoulos, 1997). Generally, parents' or guardians' education has a strong positive effect on schooling participation.

7.3.4 Wealth Index Quintiles/Household income

With respect to household income, the findings are consistent with both theoretical and empirical studies (Patrinos & Psacharopoulos, 1997; Cigno, Rosati & Tzannatos, 2000; Canagarajah & Coulombe, 1997; Bhalotra & Heady, 2003; Ray, 2000; Basu & Van; 1998). Most studies support the argument of poverty as a hindrance to children's education and a promoter of child labour in families. The underlying assumption here is that parents or guardians who are poor are more likely to force their wards into the labour market in order to boost the household income than to invest in their children's education. The results confirm the hypothesis that children from rich households are more likely to attend school than those poor households.

7.4 Characteristics of location

7.4.1 Area of residence & region

There is vast variation of school attendance rates between the rural and the urban areas. The results of the study indicate that most children residing in the rural areas are less

likely to attend school than those in the urban areas. This finding supports the hypothesis of rural-urban differentials in education. Other studies have shown that the prevalence of child labour is higher in rural areas than urban areas (Bhalotra & Tzannatos, 2003; Heady, 2000). The explanation for the variation is that poverty is very severe in the rural areas than in the urban areas and as a result inhibits parents or guardians to send their children to school. Poverty cannot be the only reason for this variation because after controlling for wealth index (household income), school attendance was expected to be similar to that of the urban areas. But the negative co-efficient beta for rural area is a clear indication that there are other factors prevailing in the rural areas that are accounting for this difference. Bhalotra and Tzannatos (2003) found that distance to school, transportation cost and inadequate infrastructure were the other possible factors responsible for these variations.

Regional differences prevail in the results. The attendance rates in the three northern regions (Northern, Upper East and Upper West) are lower compared to southern regions like (Central, Western and Ashanti). Eastern region as mentioned earlier was eliminated from the study because it had no reference category. School attendance in that region recorded a 100 percent score for attending and 0 percent for not attending. Greater Accra is the only exceptional southern region with low attendance rate even much lower than the northern regions. What probably could account for this difference is that Greater Accra has vast population living in the slums and most children living in these slums are dropouts or are not regularly attending school because of the high cost of schooling and/or the economic hardships that they are facing. Also, it is possible that low attendance in school may be due to the influx of migration in Greater Accra. Most families migrate from all parts of the regions to Accra in search of greener pastures and a lot of these migrants are from the Volta and the northern parts of Ghana (GSS, 1995). The variation of school

attendance in the northern and southern parts of Ghana can be attributed partly to the socio-economic differentials among these regions. Most of the southern parts of Ghana have better infrastructural developments compared to the northern parts of Ghana. There is the existence of inadequate educational facilities in the northern than the southern parts of Ghana.

7.5 Conclusion

The main aim of the study was to examine whether child labour hinders children's ability to go to school. Also, the study wanted to know whether demographic and socio-economic factors of respondents influence children's education. In order to establish a relationship between these variables, Chi-square test of analysis and binary logistic regression were used at the bivariate and the multivariate levels respectively. It is realised that child labour whether it is economic or domestic per the definition used in the study really has a substantial negative effect on children's school attendance. As a matter of fact, children's engagement in an economic activity or economic child labour to be precise shows a very strong relationship on school attendance. It is the only predictor variable that tested significant when it was regressed on school attendance even when other predictor variables had been controlled for. Moreover, the contrast between the effects of these two types of child work on school attendance is almost close. The central message from this study is that child work, even in limited amounts, does adversely affect the child's learning as reflected in a reduction in the school attendance rate.

Furthermore, the study looks at the effects of demographic and socio-economic variables on school attendance. These predictor variables are worth studying because they are crucial determinants of school attendance. The study provides interesting results which support other

empirical studies. In a nutshell, all the four hypotheses tested in the study supported empirical studies.

7.6 Recommendations

One of the essential tools for human capital and economic development is education. This is very important for developing countries especially Africa that lacks the required skills or technological knowhow to develop its economy. From the study it is observed that child labour hampers the education of children. However, child labour is a complex social phenomenon to be dealt with as we try to find possible ways of its elimination. The socio-cultural and traditional challenges involved must be considered in combating the practice.

In trying to find ways to solve the child labour problem, we need to ask the following questions; is the situation a legislation, implementation of policy, reinforcement and monitoring, creation of the awareness problem or what?

I personally think that the biggest challenge is the creation of awareness and monitoring ineffectiveness because from the study we get to know that children whose parents/guardians have no education are more likely to engage in child labour than those whose parents/guardians have higher education. This can, however, be inferred that parents/guardians with higher education are more likely to be aware of the negative effects of child labour and are more likely to send their children to school than parents/guardians with no education. It can also be deduced that most parents/guardians with no or less education may not have knowledge about the issue of child labour because the illiteracy rate in Ghana is high. Therefore, creating the awareness of the consequences of child labour to the majority of the Ghanaian populace is very keen in that several policies, laws and institutions have been established to combat the problem of child labour in Ghana but the question is how many parents or guardians in Ghana are aware of the prevalence and

the consequences of the situation? The effective way to control child labour in Ghana is through a national political commitment by government and the collaborative effort of all other stakeholders. The solution is the creation of awareness through continuous and persistent education of public especially at the local levels and through local community programmes on child labour. The ordinary Ghanaian should be educated about the long run effect of child labour.

This can be achieved through a collaborative effort of the National Commission on Civic Education (NCCE), The Ministry of Manpower, Youth and Employment, Ministry of Gender, Children and Social Protection, Ministry of Education, all religious bodies and the media practitioners to come out with strategies to educate people about child labour. Promotion of adult literacy can aid the elimination of child labour in Ghana. In fact, education is the key because I think so many people have no idea about the consequences of child labour whether it economic or domestic on children's education and development.

On the issue of poverty situation in households especially in the rural areas, measures are underway to solve the problem. For instance, strategies like the Growth and Poverty Reduction Strategy for 2006 through 2009 (GPRS II) and Livelihood Empowerment against Poverty (LEAP) programme are measures the Government of Ghana has put in place to solve the problem of poverty and child labour in Ghana. These programmes should meet its target and where necessary should be intensified.

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APPENDIX

Cross Tabulation showing the relationship to head of household and school attendance

Relationship to head	**School Attendance**		**Total**	**Number**
	Yes	**No**		
	Percent	**Percent**		
Wife/Husband	100	0	100	2
Son or Daughter	95.7	4.3	100	1242
Son/Daughter in law	100	0	100	2
Grandchild	98.4	1.6	100	186
Brother	95.8	4.2	100	24
Brother/Sister in law	100	0	100	5
Other relative	92.7	7.3	100	110
Adopted/foster/step child	96.8	3.2	100	31
Not related	91.7	8.3	100	24
Total	**1558**	**68**	**100**	**1626**
χ^2 = 7.204, df = 8		**Significance level (0.515)**		