CHILD LABOUR, POVERTY AND HEALTH OUTCOMES: THE GHANAIAN EXPERIENCE

BY

JAMES ATAMBILLA ABUGRE (10552116)

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JULY, 2017
DECLARATION

I hereby declare that this thesis is my personal work towards the attainment of a degree of Master of Philosophy in Economics and as far as I am concerned, it does not contain any material previously published by someone else, neither does it contain any material already submitted somewhere for the award of any degree, except materials which have been acknowledged in this work.

JAMES ATAMBILLA ABUGRE (10552116)

SIGNATURE: ............................

DATE: .................................

DR. LOUIS BOAKYE-YIADOM  DR. NKECHI SRODAH OWOO
(SUPERVISOR)                      (SUPERVISOR)

SIGNATURE: ............................

DATE: .................................

DATE: .................................
DEDICATION

This thesis is dedicated to the Lord God Almighty for the successful completion of the thesis. My heartfelt gratitude goes to my wife Mrs Gladys Atambilla Abugre for her unflinching support and to my parents Mr and Mrs Alfred Abugre Ayemef for their love, sacrifice and support throughout my academic ladder.
ACKNOWLEDGEMENT

I am most grateful to the Almighty God who saw me through the writing of this thesis. His uncommon favour and Grace throughout my life has been unprecedented and I humbly appreciate this blessing. I duly acknowledge my supervisors; Dr Louis Boakye-Yiadom and Dr Nkechi Srodah Owoo for their useful corrections and wonderful supervision which has contributed to bringing this study into shape.

I also acknowledge with great depth of gratitude, Professor Samuel Kofi Seffah Dede, Former Pro -Vost of the University of Ghana, Legon and now Dean of the School of Engineering. His fatherly love, counsel and encouragement throughout the course period has been remarkable and exemplary.

My sincere appreciation also goes to Mr. Okoffo Boadi Boampong, District Co-ordinating Director of Akwapim South District Assembly whose invaluable love, understanding and selflessness has ensured my completion of this wonderful course. I am forever indebted to you.

Finally, I wish to acknowledge Manasseh Atta Boahene for his immense contribution.

God richly bless all of you.
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ABSTRACT

Many households in Ghana especially rural households experience high poverty and low income. Therefore, as a strategy to ensure that the basic needs of the household are met, children may be forced to participate in the labour market despite the consequences associated with it.

Poor households may adopt the use of children in child labour as livelihood strategy.

This study examines the relationship between child labour, poverty and health using descriptive statistics and probit regression with data from the 2012/2013 Ghana Living Standards Survey (GLSS 6).

The probit regression estimates show that the health status of a child influences a child’s participation in child labour. Thus, children who are ill are less likely to participate in child labour compared to children who are healthy. Moreover, child labourers in Ghana suffer from various health problems such as cuts, burns, skin diseases and snake bites among others.

According to the findings of the study, the income of the household affects child labour decisions. Also, the poverty status of the household is significant in influencing child labour among households. Thus, it is possible to identify children from households that are not poor participating in child labour.

Sensitization of the public on the health effects of child labour and feasible policies and programmes to eliminate child labour is very crucial in dealing with the problem of child labour in Ghana.
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### ACRONYMS

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<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>GLSS</td>
<td>Ghana Living Standards Survey</td>
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<tr>
<td>GSS</td>
<td>Ghana Statistical Service</td>
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<tr>
<td>ILO</td>
<td>International Labour Organization</td>
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<tr>
<td>UNICEF</td>
<td>United Nations International Children’s Emergency Fund</td>
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<tr>
<td>UNESCO</td>
<td>United Nations Educational, Social and Cultural organisation</td>
</tr>
<tr>
<td>CHRAJ</td>
<td>Commission on Human Rights and Administrative Justice</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
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<td>LEAP</td>
<td>Livelihood Empowerment Against Poverty</td>
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CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Child labour is one of the most pressing issues in developing countries. The global number in 2012 indicates that about 168 million children were in child labour, representing almost 11 percent of the total child population in the world (ILO-IPEC, 2010b). The most heartbreaking aspect of this statistic is that more than 85 million of these children work in hazardous sectors of the various economies (Armand et al., 2017).

The International Labour Organization (ILO, 1973) defines child labour as “work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development. It refers to work that interferes with their schooling: by depriving them of the opportunity to attend school; by obliging them to leave school prematurely; or by requiring them to attempt to combine school attendance with excessively long and heavy work”. It must be noted however that not all work that is done by children is deemed to be child labour.

The ILO (1973) indicates that work such as household chores, helping at the kitchen after close of school, helping in selling at shops during leisure times of the child among other minor household activities are not considered as child labour. The ILO indicates explicitly that child labour only occurs if and only if that form of work is injurious to the health of the child, interferes in his/her schooling, requires time more than seven hours a week and it is harmful to the physical and mental development of the child.
The UNICEF’s Conventions on the rights of the child prohibits activities performed by children that affect the child’s health and schooling (UNICEF, 1997).

Child labour is a worrying issue across countries because of the health implications on the children involved. When children who are in the early formation of their life begin to work, they get exposed to various illnesses or injuries. Such hazards may inflict immediate damage to the child such as risks arising in manufacturing, construction and mining firms. Mishandling of tools and machinery, falling objects and exposure to high temperatures and poisonous chemicals are among some of the risks the child may face at work.

Other work hazards may not impose immediate health effects but such hazards may have long-term consequences on the child. Such hazards arise when a child comes into contact with toxins, chemicals and lifting or carrying heavy loads. A child may also suffer psychological trauma when he or she is abused by his or her employer (ILO, 2009).

Despite numerous studies of the impact of child labour on health, there is limited data on this in Ghana even though the GLSS 6 report indicates that 1.9 million (21.8%) children are involved in child labour while another 1.2 million (14.2%) were engaged in hazardous forms of child labour. This means that there is the likelihood of the hazardous form of child labour to have health effects on the child. The empirical literature on child labour has mainly been occupied with the schooling decision, merely viewing child labour as the lack of schooling.
Most Ghanaian societies have a tradition that enables children to engage in all kinds of work which form part of their training. The rate at which these children flock the streets of Ghana for economic ventures in recent times in a bid to assist parents has assumed increasing dimensions. This has, therefore, become an issue of major concern.

It was this observation that had aroused the interest to research into these areas to look at the socio-demographic factors of child labour and its impact on the health of children in Ghana, while also analysing poverty to assess its impact on child labour.

1.2 Problem Statement

The high incidence of child labour in many developing countries, including Ghana, may be attributed to socio-cultural dimensions in these settings. In earlier periods, children were considered as a factor of production; labour force for the family. This was not a problem because, in the absence of modern technology, majority of the parents had to depend on their children as sources of labour, especially in the cocoa growing areas, fishing communities such as Yeji, Abotoase, Dambai and others where manual labour was most required. Traditionally, children predominantly feature in the family upkeep in many ways.

Poverty-related health problems (e.g. malnutrition, anaemia) increase the risks and consequences of work-related hazards and may lead to permanent disabilities and premature death. Long hours of work on a regular basis can harm children’s social and educational development.

In the Philippines, for example, a survey found that children in agriculture had five times greater risk of injury compared with children working in other industries (Basu and Van 1998).
In another study, there is an indication that U.S. adolescents who work more than 20 hours per week have reported more problem behaviours (e.g., aggression, misconduct, substance use), sleep deprivation and related problems (falling asleep in school). They are more likely to drop out of school and complete fewer months of higher education.

Studies in many countries have shown that children engaged in various forms of child labour suffer high rates of injury, health problems and fatalities.

The Ghana Living Standards Survey Round Six (GLSS 6) shows that 14.2 percent of children aged 5-17 years were engaged in hazardous forms of child labour. The results further indicate that 73.1 percent of children who suffered an injury as a result of work were involved in child labour while 53.2 percent of them were into hazardous activities. It is against this background that this study seeks to get empirical evidence on the health impacts of child labour in the Ghanaian context.

1.3 Objectives of the study

The main objective of this study is to determine the impact of child labour on the health of child labourers.

1.3.1 Specific Objectives

Specifically, the study seeks:

1. To examine the relationship between poverty and child labour.

2. To examine the effect of child labour on the health of child labourers in Ghana.

3. To determine the gender dimension of the child labour-health relationship in Ghana.
1.4 Research Questions

The study seeks among others to find answers to the following questions:

1. Is there any causal relationship between poverty and child labour?
2. To what extent does child labour affect the health of children in Ghana?
3. What are the gender dimensions of child labour-health relationship in Ghana?

1.5 Significance of the Study

Beegle et. al., (2009) observed that the future of every society is anchored on the solid foundation of the welfare of its youth, especially children. Therefore it is very imperative for every country to take very practical steps in ensuring that the future of the child is adequately secured and guaranteed if that country wishes to be globally competitive and economically relevant.

Indeed, this argument was further echoed by the IMF (2009) that countries with empowered youth and high school attendance have had a consistent steady increase in economic growth, life expectancy and social cohesion among others. In view of the above, various studies have over the years tried to find a lasting solution to problems that hinder the progress of young children through their findings for policy makers to implement.

However, there is still a surge in the practice of child labour in every part of Ghana with at least 4 out of every 10 children and 3 out of every 10 children for the rural and urban centres respectively (Ghana Statistical Service, 2014). The study of this topic would, therefore, be of great contribution to existing knowledge in the subject area of child labour. Identifying the health
effects of child labour is essential because it enables policymakers to target child labour for eradication.

The outcomes of the study would help relevant institutions such as the Ministry of Gender, Children and Social Protection and the Ministry of Health to feasibly roll out policy measures that would help curb the menace of child labour in Ghana. Existing legal frameworks on the rights of the child, their welfare, among others that are premised on past data and information would be adequately resourced with up to date information. This could form a solid basis for an implementation of the legal frameworks to deal with the practices of child labour in the country.

State institutions, Non-Governmental Organisations and international donor agencies such as UNICEF always require reliable data for their policy interventions on issues affecting the welfare of children. As such, the study and its outcomes would serve as an avenue to attract donor funding either directly or indirectly to help in the holistic approach to securing the future of the country through the children. The study would also help add to the existing literature on child labour and schooling by using regression analyses to discuss the effect of child labour on the health of child labourers.

1.6 Scope of study and source of data for the study

This study is restricted to children who are working or seriously looking for work in various formal and informal sectors of the economy. It uses data from the 2012/2013 Ghana Living Standards Survey (GLSS 6) which is the most recent of the Ghana Living Standards Survey (GLSS) datasets. The study looks at the various activities that can be classified as child labour and hazardous. The study also focuses on the characteristics of activities that are classified as
hazardous for children and therefore tend to affect the health outcomes of the children. Finally, the study will also not forget about gender consideration when it comes to child labour.

1.7 Organization of study

The thesis consists of six chapters. Chapter one entails the introduction, problem statement, the objectives, the research questions and the scope of the study. Chapter two gives a general overview of child labour. The chapter three focuses on the literature review of child labour. The chapter four examines the theoretical framework and methodology used in the study. Analysis of the various results from the data used in this study is done in chapter five and the final chapter provides the summary, conclusion and policy recommendations.
CHAPTER TWO

GENERAL OVERVIEW OF CHILD LABOUR, POVERTY AND HEALTH OUTCOMES IN GHANA

2.0 Introduction

Sub-Saharan Africa has the highest incidence of child labour in the world. In the Ghanaian context it is common for parents to lead their children into child labour in the form of agricultural activities, trade and household work as explained by Vaknin (2009).

This chapter gives a general overview of child labour by discussing the definition and forms of child labour and its relationship to poverty and health outcomes of children.

2.1 Concepts of Child Labour

The term “child labour” has been explained by various scholars and it has several meanings which differ among organizations. This made the ILO posits that it is difficult to define child labour. According to the ILO (2004) the definition of child labour is based on the age of the child (below 18 years), and whether the type of a child’s work interferes with the schooling and development of the child. The UN Convention on the Rights of the Child (CRC) 1989 defines a child as person below the age of 18 years. UNICEF argues that child labour has negative consequences aside its effect on child investment or economic activities (ILO, 2013).

The United Nations Convention on the Rights of the Child, ILO Convention 138 and the Ghana Children’s Act 1998 (Act 560) define child labour as “any activity or work that deprives children of their childhood, which is in effect inimical to the physical and mental health of children and that impedes their proper development”. The Ghana Children’s Act 560 section 87 states clearly
that “no person shall engage a child in exploitative labour”. It further explains exploitative labour as the kind of labour which deprives a child of his or her education, health or development.

The least age at which a child may be employed to work is fifteen years according to the Children’s Act 560, even though thirteen years is set as the minimum age for light work which is defined as the kind of work which has a lower likelihood of harming children or affecting the schooling attendance of children. The Children’s Act 560 provides the minimum age for hazardous work in section 91 which states that “the minimum age for the engagement of a person in hazardous work is eighteen years”.

It also explains hazardous work as the kind of work that is dangerous to the safety, health or morals of a child. Such hazardous work include work in bars, hotels and pubs where a child risk being exposed to immoral practices, work in industries where chemicals or machines are used, work in the mining or quarrying industries, fishing and porterage. These activities obviously pose potential threat to the health and safety of children.

### 2.2 Urban and rural child labour

Child labour appears to be a rural phenomenon, as majority of children in the rural areas help out in the farms of their households. The highest proportion of child labour is in agriculture (Baker, 2008). On a whole, children who live in the rural areas have a greater likelihood of engaging in child labour compared to children who live in the urban areas worldwide because of the prevalence of poverty among the rural households particularly in the rural areas which are highly dependent on agriculture as their main occupation (Akarro and Mtweve, 2011). Families or households in the rural areas which are poor usually consider allowing their children to work in
their farms in order to increase the income of the household (Serwadda-Luwaga, 2005). Rickey (2009) posits that because most rural communities lack accesses to drinking water and electricity, children especially girls fetch water because girls are involved in housework the most than boys.

However, child labour is also evident in the urban areas. The World Bank argues that the existence of child workers gives the signal of urban poverty in most countries most especially in Sub-Saharan Africa. It is common for children who live in the urban areas to be involved in sales activities with poor working conditions.

According to Baker (2008) poor children who live in the urban areas undergo several risks such as lack of healthcare, education and social protection. The urban areas have better educational facilities and quality infrastructure compared to the areas. Therefore, children who live in the urban areas attend school more than rural children.

However, proximity to schools for rural children who live far from the school may cause children to drop out of school as transportation cost may be quite challenging for poor households to bear (Huebler, 2008).

From table 2.2 below which is compiled from the 2012/2013 GLSS 6 data, the vast majority of child labourers are in the rural areas with a percentage of 81.57 compared to 18.43 percent of children involved in child labour in the urban areas. In brief, in Ghana even though child labour dominant in the rural areas, child labour is also evident in the urban areas.
Table 2.2 Urban-rural distribution of child labour among 5-17-year olds in Ghana

<table>
<thead>
<tr>
<th>Child labour</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>1,294</td>
<td>18.43</td>
</tr>
<tr>
<td>Rural</td>
<td>5,729</td>
<td>81.57</td>
</tr>
<tr>
<td>Total</td>
<td>7,023</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Author’s compilation from the GLSS 6, Ghana Statistical Service.

2.3 Gender Aspects of Child Labour

Gender disparities exist in child labour. Boys and girls do engage in different kinds of work which differs by industry and country. For instance, boys are mostly found in works such as manufacturing, transport, restaurant and trade whiles girls are also mostly found in housework and agriculture (World Bank, 2005).

Edmonds (2007) observes that a huge number of children engaged in child labour are engaged in household activities in the various households, especially in Zambia, Kenya and Tanzania. Edmonds (2007) presumes that boys are involved more in industrial work compared to girls in Bangladesh. Thus boys have a higher likelihood of been employed to work in the construction, fishing and wood furniture manufacturing industries as compared to girls who are most likely to be involved in handcrafting and in private household services.

According to Mamadou (2009) boys are dominant in economic activities whiles girls are also dominant in household chores or catering for their siblings.
The 2012/2013 GLSS 6 report shows that boys are more involved in child labour than girls. This confirms the findings of Patrinos and Psacharopoulos (1995) that boys are more involved in child labour compared to girls because girls are mostly engaged in household chores.

Table 2.3: Gender distribution of child labourers between the ages of 5-17-years in Ghana

<table>
<thead>
<tr>
<th>Sex of child labourers</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>3,268</td>
<td>46.53</td>
</tr>
<tr>
<td>Male</td>
<td>3,755</td>
<td>53.47</td>
</tr>
<tr>
<td>Total</td>
<td>7,023</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Author’s compilation from the GLSS 6, Ghana Statistical Service, 2013.

2.4.1 Child Labour and the living conditions of households

Poverty has adverse effects such as increased unemployment, poor living conditions, corruption, prostitution, malnutrition and child labour among others (Owolabi, 2012; Ekpenyong & Sibirii, 2011). Child poverty, which means “children who are born to poor parents” has severe implications as it strips a child off his childhood. Child poverty leaves permanent effects on children. Children are affected in several ways by poverty such as through malnutrition which impedes the health and education of the child which in effect may have long term impacts on the development of the child (Ortiz et al., 2012). UNICEF explains that “child poverty has the unique element of child rights but such children are bereft of sufficient nutrition, good drinking water, health services, sanitation facilities, education and information” (Ortiz et al., 2012).
In a more practical sense, people who are poor have challenges in meeting their basic needs such as food, healthcare, clothing and shelter. Most people living in abject poverty have harsh housing, sanitary and hygienic conditions. Slums are the homes of most of these poor people who lack sufficient nutrition and healthcare. Even though illiteracy is very rampant among poor people, most of them are unable to attain a higher level of education because of the cost of education which is mostly high.

Khan (2001) proposes that people who are poor earn little which is unable to cover for all the responsibilities in the household and hence children may be forced into labour in order to enhance the income of the household.

Hosen (2010) demonstrates that parents who are poor and live in the rural areas can hardly afford to provide food for their families, not to talk of enrolling their children in schools and paying school fees as well.

Some empirical studies establish the link between child labour and living standards.

Krueger (1996) displayed trends from cross-country sample that households which have low income have a greater likelihood of ushering their children into the labour market, which is not common in households which are richer. Duryea, Lam, and Levison (2007) observed that children are compelled by the unemployment of the father to participate in the labour market in order to earn income to increase the income of the family in urban Brazil.
2.4.2 Child Labour and Poverty Reduction Techniques

Poverty influences child labour to a greater extent in Ghana. Nevertheless, there are other equally important determinants of child labour in Ghana such as the cultural practices of a society, the sex of the child, availability and accessibility to quality education (Bhalotra and Heady, 2001). Even though, the government of Ghana acknowledges that measures to reduce poverty alone may not necessarily lead to a decline in the number of child labour, Poverty Reduction Strategies explicitly include child protection issues.

The 2006 Growth and Poverty Reduction Strategy (GPRS II) stresses on growth as an effective way to enhance the rate of reducing poverty and also to eradicate the worst forms of poverty, economic injustice and social deprivation from the Ghanaian society. Much attention is given to programmes and policies to fight against all forms of child labour. In view of this, in 2008 the government of Ghana launched the Livelihood Empowerment against Poverty (LEAP) Programme to provide support to households in fighting against child labour.

The objective of the LEAP programme was to give direct cash to the extremely poor people to enhance their living standards against poverty. The LEAP was a five-year programme which was expected to assist about 164,370 households in 138 districts in Ghana by 2012. In order to benefit from the LEAP programme, a household must have its income below the poverty line, and also on the condition that every child in the household who is of the basic school age is enrolled in the basic schools. Another condition was that no child in the household is involved in worst forms of child labour or child trafficking.
The LEAP programme which incorporated concerns of child labour into its poverty reduction strategy demonstrates the attempt to bring the problem of child labour into the limelight of social policies.

2.5 Forms of child labour

Children are involved in several forms of works, some of which have risks or hazards. Most of these children are susceptible to injury and physical pain especially when they are exposed to health hazards (Levison and Murray, 2005).

The ILO (2012) explain that most children involved in labour are into hazardous works such as agriculture, mining, construction, manufacturing, fishing and bonded child labour. The industrial and environmental conditions can affect the human capital formation of children. Children are observed working in diverse sectors such as factories, agriculture, domestic labour and sex workers and doing illegal activities like migrant labourers, prostitution and street vendors among others.

According to O. O’Donnell et al., (2002) there are varying effects of child labour from country to country and the factors which account for the differences include the conditions of work, age and gender of children involved in child labour. Amon et al., (2012) argue that child labourers found in the Sub-Saharan Africa and Southeast Asia are the ones engaged in the worst kinds of child labour, which include bonded child labour, child trafficking, child prostitution, strenuous child domestic work, and hazardous child labour among others. Thus more than 90 percent of children who work in hazardous labour are exposed to dangerous tools and harmful chemicals.
2.6 Worst forms of child labour

Child labour has various forms which vary in terms of the nature and the activities children do. The Worst Forms of Child Labour Convention 1999 (No. 182) classifies the worst forms of child labour under three categories. First, the worst forms of child labour includes all kinds of slavery which includes the trafficking and sale of children, children used in debt bondage, forced labour which includes forceful recruitment of children in armed conflict. Children involved in the slavery kind of child labour do strenuous work which affects the physical and psychological development of children.

The next category of the worst forms of child labour is when a child is used in immoral activities such as in prostitution or for pornographic activities. These activities have negative implications on the moral upbringing of children used in such activities.

The third category of the worst forms of child labour is the use of children in illicit activities such as drug trafficking which is harmful in itself because of how drug trafficking is carried out, which affects the safety and morals of children involved in such practices.

Most of the worst forms of child labour are carried out by children who come from very poor background. This has attracted the international community to appreciate the urgency in eliminating the worst forms of child labour worldwide.

2.7 Supply factors of child labour

The agricultural sector has the highest proportion of child labour. What mainly causes child labour in the agricultural sector is the existence of rural household poverty. Basu and Van (1998) argues that poor households usually tend to usher their children into child labour in order to add up to the household income for upkeep. Families which are poor usually tend to rely on the
earnings of child labour to meet the needs of the household. Blunch and Verner (2001) affirm that in Ghana poverty is the main cause of child labour.

The inadequate availability and accessibility to basic education particularly in the remote rural areas, together with the high cost of schooling forms an integral contributing factor to child labour. For instance, in circumstances where basic schools are inaccessible or unaffordable to the rural people causes children being forced into child labour rather than going to school. Canagarajah and Coulombe (1997) argue that child labour is prevalent in the rural areas partly because of the high cost of schooling and the problem of the nearness of the basic schools to the rural communities.

A critical cause of child labour in the rural areas is when shocks occur. Such shocks include loss of breadwinners, death of livestock, loss of jobs and failed harvest. These shocks directly affect the income of the household such that the earnings from child labour become very useful for the sustenance of the household.

Most financial institutions operate in the urban areas compared to quite a few of them which operate in the rural areas. Because financial services are mostly unavailable in the rural areas, parents who are unable to repay their debts may resort to the use of their children into bonded labour in order to defray the debt.

Most rural communities in Ghana have agriculture as their main occupation. In such communities, children may have no option of schooling than to participate in the agricultural activities of the community because of the importance their families place on passing down the needed skills and the technical know-how of agricultural practices.
2.8 Demand Factors of Child Labour

Demand for cheap labour leads to an increase in the incidence of child labour. Most employers prefer hiring children to adults because of cheap labour which gives them the opportunity to offer lesser wages to children compared to adults. This situation dates back to the 18th century during the period of industrialization where machines were used in most productive processes and children were employed more than adults in various industries.

Also, in situations where families have vast land for agricultural activities and are unable to employ adult labour due to financial constraints, children in the household may be allowed to assist on the farms. Basu and Van (1998) explain that children are the better option to be used as labourers on the farms of poor rural residents who cannot afford to employ labourers to work on their farms.

Most rural businesses and farms yield low output and therefore cannot afford to employ and pay for the services of adult workers. This gives rise to the demand for child workers who are paid very little sums of money or are unpaid at all. Children may be used as shop keepers in small shops.

2.9 Summary

Child labour is prevalent in Ghana and in most parts of the world. Poverty turns out to be a major cause of child labour among other factors such as bad conditions of basic schools in the remote rural areas with difficulty in getting to the basic schools because of the distance a child would to cover to get to school. Basic schools may not be entirely free in the rural communities with so many poor families who may have to buy school uniforms and also pay for the transportation and feeding cost of their children each day at schools. Poor households who cannot afford to bear all
these expenses on the education of their children may resort to ushering their children into child labour to earn extra money to boost the income of the household.
CHAPTER THREE

LITERATURE REVIEW

3.1 Introduction

In undertaking empirical studies, researchers need to relate existing materials to the problem or topic to find out what has already been done about the topic. The review process involves systematic identification, location and analysis of documents that contain information which are related to the research problem. The idea is to avoid unplanned replication, identify useful methodologies, develop research hypotheses, and identify contradictory findings and to facilitate interpretation of results of the study. This chapter reviews available literature on child labour.

3.2 Review of theoretical literature

3.2.1 Definition of child labour

The term child labour has been defined by various scholars in different ways. Suda (2011) defined child labour as “when children are working in any type of work that is dangerous and harmful to children’s health or the work hinders their education”. This means that, when a child engages in any type of work that is harmful to his or her health or puts her health at risk whiles it also hinders the education attainment of the child, then there is child labour. According to Moyi (2011) “child labour refers to low wages, long hours, physical and sexual abuse”.

Edmonds and Pavcnik (2005) also observed child labour is “as a form of child labour abuse, when children work in bad conditions and hazardous occupations”. The definition of child labour
varies among the various scholars but the central focus is on the type of work and the health implications of the work the child engages in.

Various institutions define child labour from various angles. According to the International labour Organization (2004), the definition of child labour is a daunting task. The true definition of child labour according to the International Labour Organization is whether the job interferes with the child education; or the job affects the health of child in a negative way.

The UN Conventions on the Rights of the Child (CRC) 1998 observed that, a child is someone below the age of 18 years. Child labour practice can be a very serious threat to foreign direct investment in economies according to the World Bank because most investors do not want to invest in countries with high incidence of child labour.

Bhat (2010) in a study on child labour asserts that, the concept of “child”, “labour” and work are three difficult concepts to define. There is therefore no concrete definition of child labour worldwide. The concept of child labour therefore continues to be defined based on relative concepts and notion as opposed to an objective observation of the concept.

3.3 Overview of child labour

In the era of the industrial revolution, children were forced to engage in work on the family lands and factories. The kind of work these children were engaged in the various industries was risky and deadly as well since children were more prone to sickness than any other thing. The main reason for the use of children was because of the low or potentially, absence of wages paid to children and the ability of the employers to control these children without much stress (Basu and Van (1998).
The first legislation against the practice of child labour came into force in the early 1833 and 1844. This was enacted to ban child labour practice completely to protect the health of children and also improve school attendance. It also enacted to purposely remove all of children work and activities that interferes with the education of the children. Child labour declined rapidly in most developed economies but still sees a rise in the developing economies. The rapid increase in child labour in the developing economies is due to the increase in population growth, high level of poverty, poor leadership and increase in unemployment leading to fall in the living the standards of people (Basu, 1998). Child labour has been on the rise in many low income countries with children engaged in working in almost all sectors of the economy such as the Agriculture, manufacturing, construction sub-sector etc.

Child labour incidence has been quite difficult to indicate because of the lack of reliable data source on it. Governments in most developing countries have reluctantly refused to collect data on child labour to avoid poor image in the international world. Das (2012) observed that, due to the lack of data child labour has become invisible. Though there is not enough data available for the calculation child labour, the International Labour Organization estimated in 2012 that, there are nearly 215 million children engaged in child labour globally.

3.4 Rural and Urban Dimension of child labour

Child labour has always remained one of the most complex issues in the world. It however recognized mostly in the rural areas since children are normally used to help on the farm in the rural areas whiles they are supposed to be in school. Child labour in Ghana is mostly recognized in the rural areas where children are mostly used for agricultural purposes such as weeding,
harvesting of crops, and bagging of farm outputs. The vast majority of children used in labour are engaged in agricultural activities because most developing economies have agriculture as their backbone to growth and development (Baker, 2008). Globally, child labour is more prevalent in the rural communities than in the urban centers since poverty is mostly in the rural areas than the urban areas (Akarro and Mtweve, 2011).

Most household in the rural areas fall within the poverty cycle and as a means of striving out of poverty, use children as the main source of human labour for their agricultural activities. Most rural communities lack the basic amenities such as good drinking water, schools and electricity. Children are therefore asked to engage in the fetching of firewood from the long distance water sources during schooling hours. Rickey (2009) observed that, most rural communities lack the basic social amenities and this leads to the use of children as a means of getting these things from

Child labour also exists in the urban centers. According to the World Bank, child labour in the urban centers is a sign of urban poverty and this is usually prevalent in Sub Saharan Africa. Most urban centers are crowded with most households very poor and unable to meet their basic needs. Children in the urban areas are usually involved in the sales or vending of items on the street particularly among urban poor communities.

These children usually engage in works with poor health conditions and usually dangerous environments. Usually, these children are given low wages and salaries for the work they do. Baker (2008) in a study observed that, girls are usually the most vulnerable ones in the urban child labour since they are usually trafficked to engage in commercial sex activities. These social cankers are usually because of poverty. According to Baker (2008), poor urban children are usually at risk in terms of health issues, lack of social protection et cetera. Urban children have more access to social amenities such as schools, health facilities than the rural areas. These are
usually areas which are far off from educational facilities in the communities. Edmonds (2007) observed that, rural children work more for long hours compared to the urban children. In terms of attendance to school, children in the urban areas are more likely to attend school compared to the in the rural areas leading to child labour in the rural areas which usually lack educational facilities.

3.5 Gender dimension of child labour

There is a complex gender dimension to child labour in Ghana (Ray, 2002). Boys are usually economically active in terms of child labour compared to girls in most countries. Boys and girls do different of jobs in countries and industries because of their strength differentials. In most South American countries, boys are usually used for child labour because of their activeness compared to girls but the case is different for most African countries (Kruger, 2007). Boys and girls can also be found in different type of economic activities. For example, boys are usually found in manufacturing, agriculture, and mining while girls are usually used in selling along the streets whiles girls are also usually used in handicrafts and textile industry (Ray, 2002).

Mamadou (2009) in a study observed that, boys are usually engaged in long hours of economic activities compared to their female counterparts. Girls are usually allowed to participate in the household chores.
### 3.6 Poverty and child labour

Poverty has been acclaimed as one of the major cause of child labour in most African countries. According to Owolabi (2012), poverty breeds many problems such as child labour, prostitution, unemployment, corruption and increased level of crime in communities. Child poverty is different from adult poverty because of varying effects and reasons. It robs children of childhood and quality care. Poverty can cause a psychological effect on the life of the child to the extent that, child poverty breeds long effect on the mind of the child even into adulthood. Ortiz et.al (2012) observed that, poverty leads to long term problems in the life of the child leading to malnutrition and low educational attendance which tends to affect the development of the country.

Practically, poverty ridden communities face problems of low level of education, increased inequality, social problems such as prostitution and child labour which affects the development of these areas. Many poor people lives in slums and are not able to afford a three square meal with the right nutritional content. Faiza (2015) in a study on poverty and child labour in Sudan observed that 67.7% of children from poor families join labour market earlier than are supposed to be. Furthermore, the study showed that there exist a positive relationship between household socioeconomic and demographic characteristics and child labour. Because of the negative effects of child labour in Sudan, there is the need for the adoption by organization concerned of strategies for alleviating poverty if at all the pace of joining labour market by Sudanese children is to be slowed down.

Blunch and Verner (1999), observed that the link between poverty and child labor has traditionally been regarded a well-established fact. The examination of the study reinstates the positive relationship between poverty and child labor, a relationship that has been questioned by
recent literature. Further, the study further find evidence of a gender gap in child labor linked to poverty, since girls as a group as well as across urban, rural and poverty sub-samples consistently are found to be more likely to engage in harmful child labor than boys. The study concluded that, the established gender gap need not necessarily imply discrimination but rather reflect cultural norms.

Child labourers are involved in many dangerous and hazardous works. These children are engaged in vulnerable and harmful works that affects children by exposing them to health hazards (Levinson and Murray, 2005). The International Labour Organization (2012) observed that the vast majority of child labour is involved in hazardous occupations such as agriculture, mining, manufacture, construction bonded child labour, domestic work and fishing. These children are prone to sickness and other health hazards that affect their living conditions and health standards.

Occupational and environmental problems can impact on the health needs and development of the child due to their engagements in these dangerous jobs. The effects of job activities can differ from one country to the other. The working conditions, age difference and the nature of jobs children engage in differ too (O. O’Donnell et al., 2002).

3.7 Empirical studies on child labour

3.7.1 Introduction

Several empirical research on child work formerly were based on small sample size of child workers who were observed or interviewed to discuss the issue of child work (Addison et al, 1997). Those studies were helpful to the extent that they provided information on the conditions of work and wages of child workers. Be that as it may, those studies were not able to highlight
the basic question of why children work and the household welfare implications of child work because of lack of information. In recent times, micro-data for developing countries are generally accessible which makes it viable for new observations to be formed to broadly research into child work. For analysis on child work, the Living Standards Measurement Survey (LSMS) is reasonably convenient. The LSMS contains unified household surveys for developing countries on welfare indicators. The LSMS data is made up of demographic and socio-economic characteristics at the individual, household and community levels.

Chao and Alper (1998) analyse the access to basic education in Ghana for children between 10-14 years of age. Two supply-side factors that reduce participation are identified, namely;

1) Distance to primary school, and 2) Pupil-teacher ratio at the primary level. Furthermore, the factors affecting enrollment and drop-out rates are access to drinking water and roads. Lastly, household income, demand for child labour, and parental education are found to be key factors in determining the likelihood of children attending primary school.

Fassa et.al., (2000) observed that, despite the scores of literature on the determinants of child labor, the evidence on the consequences of child labor on outcomes such as education, labor, and health is limited. Their studies evaluated the causal effect of child labor participation among children in school on these outcomes using panel data from Vietnam and a two stage least squares technique. It was concluded from their study that five years subsequent to the child labor experience was found to have a significant negative impacts on education. It was also found that there is a higher probability of wage work for those young adults who worked as children while attending school. The study observed a few significant effects on health of child from child labour.
Beegle al., (2009) in their study on the impact of child labor on the education, labor, and health of children in Vietnam for the first years of children’s engagement in work showed that there is a significant negative impact on education, and also find a higher probability of wage work for those young adults who worked as children while attending school.

Despite the extensive literature on the determinants of child labour, the evidence on the consequences of child labour on outcomes such as education, labour, and health have been a big issue for academicians and policy makers’ worldwide (Beegle al., 2009). It has been shown in several countries that children’s human capital development is affected when children engage in work at the early stages of life.

Anacludia et. al., (2000) in their study observed that child labor remains a widespread problem. Though it can have positive effects, in some situations it has negative effects on health and development of the children. The study observed that though, it was mainly a problem in developing countries, it is also possible to find child workers, some working in hazardous activities, in developed countries. Their study described the child labor profiles in developed and developing countries, the principal occupations of children, and their concomitant hazards. They examined the epidemiologic evidence for a greater impact of some occupational exposures on the health of children as compared with adults, and the theoretical concerns about the impact of child labor on health, and suggest policies that can be used to combat harmful child labor. The study concluded that, child labour has harmful effect on the health of the child.

Baland and Robinson (2000) examined the trade-off between child labour and health outcomes. A model of child labor was built to study its implications for welfare of the child. It was assumed that there is a trade-off between child labor and the accumulation of human capital. Even if parents are altruistic and child labor is socially inefficient, it may arise in equilibrium because
parents fail to fully internalize its negative effects. This occurs when bequests are zero or when capital markets are imperfect.

The study also analyzed the effects of a simple ban on child labor and derives conditions under which it may be Pareto improving in general equilibrium. The conclusion shows that the implications of child labor for fertility are ambiguous.

Roggero et.al (2007) examined child labor and its effect on health of children. Their study sought to determine the impact of child labor on children’s health by correlating existing health indicators with the prevalence of child labor in some selected developing countries.

The study analysed the relationship between child labor (defined as the percentage of children aged 10 to 14 years who were workers) and selected health indicators in 83 countries using multiple regression to determine the nature and strength of the relationships. The study included control variables such as the percentage of the population below the poverty line and the adult mortality rate. The study concluded that, child labor was significantly and positively related to adolescent mortality, to a population’s nutrition level, and to the presence of infectious disease. The study concluded that longitudinal studies are required to understand the short-term and long-term health effects of child labor on the individual child.

Graitcer and Lerrer (1998) observed that child labor remains one of the most controversial challenges at the end of the 20th century. The study examined that, approximately 250 million children in developing countries work either full- or part-time. Child labor is not confined to less-developed countries, as economic transitions bring shifts in the prevalence and nature of child labor.
The study revealed that, occupational injury and mortality rates for children exceed those of adults when they engage in child labour. Yet, data on the extent of child labor and the associated burden of injury and disability are often of poor quality. An estimated 6 million work-related injuries occur among children that result in 2.5 million disabilities and 32,000 fatalities each year according to the study.

Using data derived from the Global Burden of Diseases Study (GBDS), estimates of child occupational mortality rates by region were found to be comparable with adult mortality rates, indicating that the conditions in which children work are as dangerous as, or more dangerous than, those in which adults work.

The study further uses human capital or willingness-to-pay calculations, to estimate the impact of child labor on child mortality. Depending on the estimation method used, the annual cost of child labor-related mortality in India, for example, lies between 101 million and 2.43 billion U.S. dollars as observed from the study. Intervention to reduce the societal and economic impact of child labor can be directed at either reducing the supply and demand for child labor or by maximizing the best possible health outcomes for children.

The study concluded that addressing properly the global problems of child labor requires an aggressive research agenda directed toward improving the quality of the data, improving monitoring and surveillance, understanding implications of the changing nature of work, understanding social and institutional issues, and identifying innovative intervention solutions.

Patrinos and Psacharopoulos (1995) examined the effects of being indigenous, number of siblings, sibling activities and sibling age structure on child schooling progress and child non-
school activity. Their study analysis was based on the Peru 1991 Living Standards Survey. It was observed from the study that family size is important.

However, the analysis also demonstrates the importance of taking into consideration the activities of siblings in the household and its impact on child labour. The number of siblings not enrolled in school proves to be an important control variable in at least one specification of the empirical model.

However, more research is needed on the interactions between siblings, their activities and their age structure. In other words, an attempt must be made to find ways of taking into account the “life cycle effects” of one’s siblings on their schooling performance and labor force activity. The study concluded that the age structure of siblings is important, but in conjunction with their activities. That is, having a greater number of younger siblings implies less schooling, more age-grade distortion in the classroom and more child labor.

Cigno (2002) observed that there is no empirical evidence that trade exposure *per se* increases child labor. As expected by trade theory and household economics, the evidence from the study by Cigno (2002) seems to indicate that trade reduces or, at worst, has no significant effect on child labor. Consistently with the theory, a comparatively well-educated labor force, and active social policies, appears to be conducive to a reduction in child labor. The study concluded that, for countries with a largely uneducated workforce, the problem is not so much globalization, as not being allowed to take part in it.

Edmonds (2006) observed that forward looking, unconstrained households make child labor and schooling decisions considering their permanent income and weighing the relative returns to
child time in various potential activities. The timing of anticipated changes in income should have no effect on child labor and schooling in a setting where households can borrow against permanent income.

However, this study concludes that large increases in schooling attendance and declines in total hours worked occur when black South African families become eligible for fully anticipatatable social pension income. The study concluded that it was most consistent with liquidity constraints for black elder males forcing rural families into less schooling for boys than they would choose absent the constraint, perhaps because of schooling costs. This leads to increased child labour for boys compared to the girls especially in the rural settings.

Ray (2000) using data from Peru and Pakistan in their study tests two hypotheses: there is a positive association between hours of child labor and poverty, and there is a negative association between child schooling and poverty. Both of these hypotheses are confirmed by the Pakistani data, but not by the Peruvian data. The study observed that there is a reduction in poverty rates due to income from children's labor being greater in Pakistan than in Peru. The nature of interaction between adult and child labor markets varies with the gender of the child and the adult.

The study concluded that in Peru rising men's wages significantly reduce the labor hours of girls, whereas in Pakistan there is a strong complementarity between women's and girls' labor markets. It was observed that, both data sets agree on the positive role that increasing adult education can play in improving child welfare.
3.7.2 Child Work and Household Welfare

A nonparametric method is adopted by Edmonds (2005) to examine the link between the increase in per capita expenditure and child labour in Vietnam. The finding was that the relationship between per capita expenditure and child labour is not sequential or nonlinear. Theoretical underpinnings as to why there is a non-sequential relationship between per capita expenditure and child labour do exist.

Inferring from Basu and Van (1998) model, once households are able to meet their livelihood needs with the earnings of the adults it would not be necessary for children to work. In effect the changes in income above or below what is required for the upkeep of the household will have no effect on child labour.

However if a given range of income corresponds to an observed subsistence need, then Basu and Van would anticipate to notice variations in child work that can correlate with an improvement in the household welfare. The justifications for the use of expenditure and not income are given by Edmonds (2005). One is that, it is difficult to estimate the precise income level of households because not all households are entirely active in the labour markets. Also expenditure changes less than income as households basically attempt to even out their consumption over time.

In view of the fact that child labour is a barrier that interferes with the Millennium Development Goal of universal primary education, Huebler (2008) examined the determinants of child labour and schooling at the household level. Data on child labour and school attendance were gathered from 35 household surveys which represents 25% or one of four equal parts of the world’s population.
The data were compiled with the Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Survey (MICS) from 1999 to 2005. The determinants of child labour and school attendance at the household level were pointed out through several bivariate probit regressions. The finding was that children from households that are poor and children from households whose household heads are not formally educated are more likely to be involved in child labour and less likely to regularly attend school than children from rich households and children with educated household head. Thus this finding fully buttresses the hypothesis that poverty is the main cause of child labour.

Ray (2002) scrutinizes the determinants of child labour and child schooling in Ghana, particularly the interactions between them. The GLSS 1988/1989 data set was used. Child schooling, poverty and child labour are estimated using simultaneous equations, controlling for the endogeneity that exist between them. Also, the two-step Heckman estimation procedure was used to estimate child labour. The determinants of child labour were grouped under child, family and community characteristics.

Several studies on child labour in Ghana reveal findings that show that child labour displaces schooling. In the case where working and schooling go hand-in-hand, there is a negative effect of working which can come through reducing the time available for studying, playing, and sleeping of children (Edmonds & Pacvnik, 2005). On the other hand, child labour may provide households with sufficient income to keep children in school especially in the household with high levels of poverty. A study by Basu (1999) and Edmonds (2005) find zero or positive effect of child labour on school enrollment and education attainment.

With regard to health, child labour can impart stress on a young body, as a consequence of contacts with hazardous material, or cause exhaustion (O’Donnell et al., 2005).
In Ghana, many children between the ages of 5 and 17 years engage in street hawking, farming and illegal mining activities that result in fatal accident or death in extreme cases (Ray, 2002). This is due to the high levels of poverty in most households. However, the additional income received from child labour can be used to maintain the health of children and buy sufficient food, especially in poverty ridden households. Grootaert and Kanbur (1995) conclude that if survival depends on work in the informal sector, then the most sensible solution is to take children out of school and put them to work. Simply put, the most obvious economic impact of child labour at the family level is an increase in household income. In the long term, the under accumulation of human capital caused by low school attendance and poor health may be a serious negative consequence of child labour, representing a missed opportunity to enhance the productivity and future earnings capacity of the next generation (Heady, 2003).

Child labour is recognised as a major problem in developing countries. Research on its health impact on children has been limited and sometimes with inconsistent outcomes. In 1998, Graitcer and Lerer published the first comprehensive review of the effect of child labour on children’s health by extrapolating data from the Global Burden of Disease Study (Graitcer and Lerer, 1998). In a study by Graitcer and Lerer (2000), it was observed that there were no differences in the health status of working and non-working Egyptian children in the short run (the children were not followed to adulthood).

A 2003 report on children’s work in Morocco, Yemen, and Guatemala provides an overview of the nature and extent of child labor, its determinants, and its consequences for the health and education of children in these countries (Susser, 1994). It reports that poverty, household size,
shocks such as loss of job, crop failure and death of bread winner cause child labour. The report further argues that child labour negatively affects the health and schooling of children.

The relationship between poverty and child labour has traditionally been regarded as a well-established fact. While some scholars like Canagarajah and Coulombe (1997) downplay the claim that poverty is the major determinant of child labour, Blunch and Verner (1999) revisited the link between poverty and child labour to re-establish the claim that poverty is the main cause of child labour in Ghana by using the two stage least squares to control for the reverse causality. Blunch and Verner (1999) observed evidence of a gender gap in child labour linked to poverty, since girls as a group as well as across urban, rural and poverty sub-samples consistently are found to be more likely to engage in child labour than boys.

3.8 Conclusion

Most of the literature on child labour appreciates the critical role of household poverty in influencing child labour. Even though poverty is a dominant determinant of child labour, there exist other factors that affect child labour such as availability and affordability of basic schools to poor families, household size and child schooling among others. Child labour is inimical to the human capital formation of children and its harmful nature calls for policies and programmes to be made feasible to eliminate it.
CHAPTER FOUR
THEORETICAL FRAMEWORK AND METHODOLOGY

4.0 Introduction

This chapter discusses the theoretical framework and statistical techniques to be used for the study using data from the Ghana Living Standards Survey (GLSS 6). It examines the types and sources of data, model specification, variables employed under the study, prior expectations on the signs of the coefficients to be estimated as well as the model estimation technique. The analysis will be based on multivariate statistical methods, with focus on the probit regression technique. Other statistical techniques will be employed, but these are largely the routine types of techniques. Due to the importance of probit regression in this work, it is necessary to briefly review the methods that it involves.

4.1 The concept of child labour

A common difficulty with studies on child labour is the lack of a clear definition of the economic phenomenon. Emerson et. al., (2017) highlights that most authors define child labour only from a generic perspective and that, most of these studies hardly use their findings to improve the issues of child labour and to even distinguish between child labour and economically active children.

The absence of a universally approved definition of child labour makes the comparison among these studies quite blurry and problematic. Furthermore, this absence of a universal definition makes the assessment of the welfare impacts of child labour empirically a daunting task.

According to Humphries (2010), there are two assumptions that are crucial and also founded the basic static model of labour market with child labour. These are the Luxury Axiom and the
Substitution Axiom (Humphries, 2010 citing Basu and Tzannatos 2003). The Substitution Axiom according to Jane Humphries (2010) argues that “adults and child workers are substitutes subject to some adult equivalency correction” (ibid). This Axiom argues that it is always possible to replace adult labour with children and since adult labour cost more, some employers aiming to maximize profit would switch to children. This has the potential to increase the demand for children’s services in the labour market.

The poverty model (Luxury Axiom) argues that parents or households send their children to work because of poverty and that children’s “non-work, school attendance or leisure” is a luxury commodity households cannot afford. Families or households with low income cannot afford to disengage their children from working in order to survive.

This is because children’s work in this case brings in surplus income that helps to sustain the family together with adult income. Children, according to this assumption are only kept out of productive activity when adult income rises above the subsistence level. According to Marx, the rise of a new technology which he specifically referred to as “machinery” led to the practice of employing persons “whose bodily development is incomplete, but whose limbs are all more supple” (Marx 1867:372 cited in Basu, 1999).

In the view of Marx, Ideally the existence of machinery should have resulted in more time for leisure but since machinery is owned by one agent(capitalists) and labour by the proletariat (including adults and children of the working class), “a diminished need for labour would lead to decline of wages to a higher extent, therefore it would be beneficial for the capitalist to freely utilize labour on one hand, and also equally important to have workers and their entire household (family) work to satisfy their subsistence consumption (Marx 1867:373 cited in Basu, 1999).
In this way, machinery tends to depreciate the labour power of men because in order for families to satisfy their subsistence consumption, there is the supply of not only labour but surplus labour for the capitalists (ibid). In other words, all members of the family have to engage in some sort of economic activity that brings income, in order to secure their subsistence consumption. This happens because of the decline in adult wages stemming from the strong competition occurring in the labour market during the era of the British Industrial Revolution (Humphries, 2010). Marx also noted the long term consequences of child labour.

4.2 Theoretical conceptualization of child labour

This paper adopts the conceptual framework of child labour, poverty and health effects on children adopted by Humphries (2010). Figure 4.1 shows how child labour affects the health conditions of poverty-ridden households and the children themselves who engage in it. A significant percentage of Ghana’s households are poor irrespective of their place of residence, but with poverty more prevalent in the rural settings compared to the urban settings. Due to the high level of poverty in most households, children engage in economic activities whiles they are supposed to be in school purposely for economic gains in the form of cash or kind.
Table 4.1 Theoretical Conceptualization of Child Labour

<table>
<thead>
<tr>
<th>Poor households</th>
<th>Low income level</th>
<th>Child labour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child work</td>
<td>Adequate Income</td>
<td>Household support</td>
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<td></td>
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</tbody>
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Improved welfare

Source: Humphries (2010)

4.3 Theoretical Framework

The foundation of the theoretical model is a straightforward structural model of the decision of household with respect to child labour and schooling advanced by Kruger et al., (2006). The model uses a household constrained utility maximization as its backdrop, where consumption is maximized, subject to the household’s resource endowment. The model is conventionally obtained from the theory of the demand for schooling by household, with schooling being regarded as investment in human capital. By scrutinizing selfless parents, they spend their work
earnings and inherited resources on household consumption and/or human capital accumulation of their children.

Kruger et al. (2006) posit that a household attains utility from two main elements namely; consumption goods \(c\) and investment in human capital \(h\).

The utility function is recorded as:

\[
U = U(c, h) \tag{1}
\]

The assumption of the utility function is that it is quasi-linear in the human capital of children. Consumption goods are assumed to be acquired with the work earnings of parents \(t_p\) and child work \(t_c\), if only there is child work. To this end, consumption thus satisfies the budget constraint:

\[
C \leq w_c t_c + w_p t_p \tag{2}
\]

Where \(w_c\) means child wage or outcome from child’s contribution to economic production, and \(w_p\) means adult wage. It can be inferred from equation (2) that first, adults as well as children can earn wages, which makes their labour supply to be perceived as substitutes in the context of obtaining income for the household (substitution axiom). Also, it is only when parent’s wages are below a particular exogenously fixed subsistence level that children will be allowed to work in the labour market. For this reason, equation (2) acknowledges the Luxury Axiom developed by Basu and Van (1998) to the degree that household poverty causes child work.

Moreover, a child is assumed to have two dominant activities; to be involved in child labour and to be schooling (invest in human capital), which is represented as:
Where \( e_c \) is the proportion of time that is spent on investment in the child’s human capital, and \( t_c \) represents the total time of the child. Education, which is the investment in human capital, is assumed to be dependent only on the time of the child, as well as individual specific factors made up of individual and household characteristics including the poverty status of the household. Thus \( h = h (e_c, v) \), with \( v \) representing the individual specific factors (a vector of demographic characteristics). Equation (3) reveals that any feasible measure to eradicate child labour must include the vital element of investment in human capital (education). This is because once a child spends more time in school; less of the child’s time will be left in a day which limits the likelihood of a child’s involvement in the labour market.

Now, the complete income constraint and the households’ problem can be written as:

Maximize Utility, \( U = U (c, h (e_c, v)) \)

Subject to the income constraint: \( c + \sum w_c e_c \leq \sum w_c t_c + \sum w_p t_p \) ...

The first order conditions give the family’s decision in terms of child work and schooling. By defining \( \lambda \) as the multiplier on the complete income constraint, the first order conditions for \( c \) and \( e_c \) respectively are,

\[
\frac{\partial u}{\partial c} (c, h(e_c, v)) = \lambda \]

\[
\frac{\partial u}{\partial h} (c, h(e_c, v)) = \lambda w_c \]

Substituting equation (5) into (6) gives:

\[
\frac{\partial u}{\partial c} (c, h(e_c, v)) = \frac{\partial u}{\partial c} (c, h(e_c, v)) w_c \]
Solving for \( \mathcal{W}_e \) and \( \mathcal{V}_e \) from the maximization problem yields the following simple model:

\[
\mathcal{W}_e = \mathcal{W}_e (v, u) \tag{8}
\]

\[
\mathcal{V}_e = \mathcal{V}_e (v, u) \tag{9}
\]

Where \( \mathcal{V}_e \) and \( \mathcal{W}_e \) are the decision variables, which are child schooling and child work decisions respectively, \( u \) is the error term and \( v \) is the vector of individual specific factors.

4.4 Estimation Specification and Procedure

4.4.1 Modeling factors influencing child labour in Ghana

Different authors have used different approaches in estimating the factors that determine child labour participation in Ghana. To analyse the factors determining child labour participation, Blunch and Verner (2001) used the univariate probit model to examine the determinants of child labour and the link between child labour and poverty whiles Boozer and Suri (2001) used the OLS method to evaluate the tradeoff between child labour and schooling decisions in Ghana. Based on the framework above and empirical literature reviewed, the following probit regression model is specified to analyze factors affecting child labour among households in Ghana.

\[
Y_i = \beta_0 + \beta_1 \text{Age} + \beta_2 \text{Gender} + \beta_3 \text{Edu.} + \beta_4 \text{Emp.status} + \beta_5 \text{residence} + \beta_7 \text{hhsize} + \beta_8 \text{household income} + \beta_9 \text{poverty status} + \varepsilon \tag{1}
\]

Where \( \beta_0 \) is a constant, \( \beta_1, \ldots, \beta_{10} \) are coefficients and \( \varepsilon \) is the error term.
<table>
<thead>
<tr>
<th>List of variables</th>
<th>Definition and Measurements of variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Age of child in years</td>
</tr>
<tr>
<td>Gender</td>
<td>Gender of child (Male=1, female=0)</td>
</tr>
<tr>
<td>Hhsize</td>
<td>Household size</td>
</tr>
<tr>
<td>Educ</td>
<td>Educational level of the household head</td>
</tr>
<tr>
<td>Emp_stat</td>
<td>Employment status of parents</td>
</tr>
<tr>
<td>Hhinc</td>
<td>Total household income (continuous)</td>
</tr>
<tr>
<td>Poverty status</td>
<td>Household poverty status (1=poor, 0= non poor)</td>
</tr>
<tr>
<td>Residence</td>
<td>Location of child (1=urban; 0= rural)</td>
</tr>
<tr>
<td>Mother’s education</td>
<td>1= mother is educated, 0=mother is uneducated</td>
</tr>
<tr>
<td>Father’s education</td>
<td>1= father is educated, 0= father is uneducated</td>
</tr>
<tr>
<td>Hh. Involved in agric.</td>
<td>1= yes, 0= no</td>
</tr>
</tbody>
</table>
4.5 Description of Variables

4.5.1 Dependent Variables

Child labour: A child can be considered to be in child labour when such a person within the ages of (5 to 17 years) engages in an activity for economic gains such as cash or in kind in the last seven days before the survey interview. Here, the dependent variable is binary where:

\[ Y_i = 1 \text{ if the child engages in child labour.} \]
\[ Y_i = 0 \text{ if the child does not engage in child labour.} \]

4.5.2 Independent Regressors

Age

The age with regards to the involvement in child labour is very important in the literature. According to Dossa et. al., (2011), age affects the ability of an individual to engage in economic activities with older children being more likely to engage in activities as compared to younger children. Due to the labour intensive nature of the Ghanaian economy, most older individuals may not engage in economic activities at low wages whiles younger children may want to engage in it for cash or in kind.

Gender

There is a universal agreement in the literature that gender constitutes an important determinant of participation in the labour market. An important proportion of the poor in African countries are women who are willing to work to secure their families’ food security and to also supplement their husbands’ incomes. Maxwell et al., (1998) observed that women constitute a larger proportion of the participants in the labour market.
Household size

Household refers to a person or a group of related or unrelated persons who live together in the same dwelling and also share housekeeping and cooking arrangements and are considered as one unit, who acknowledge an adult male or female as the head. In Ghana, a larger household implies that more income is needed to provide the basic necessities of life for improved livelihoods. Poor households with many members may have children being ushered to participate in child labour compared to smaller households. This again implies that larger households have the potential to push children into child labour to accrue income to supplement household income sources. This study is confirmed by Dossa et. al., (2011). However, it is important to acknowledge the fact that although large households may push children into the labour market, there is also the possibility of multiple income sources in such households, particularly those with a number of adults, which may not necessarily facilitate child labour.

Level of education of the household head

Education as a means of human capital endowment constitutes an important determinant of household participation in the labour market. In most instances where there is low level of education, parents are more likely to be poor and therefore force children to engage in economic activities to supplement household income as compared to well-educated rich homes (Kruger, 2007). Most households with educated heads earn higher income and therefore have less probability to engage children in the labour market.

Employment status of the household head

The employment status of the household head constitutes a vital determinant of child participation in the labour market. There is an existent notion that, child participation in the
labour market emanates from the unemployment of the parents and therefore an inducement of the children to engage in labour. Jongwe (2014) in a study in Kampala found that, unemployed household heads are more likely to engage children in the labour market compared to the employed household heads.

**Household income**

Most children participate in the labour market as a result of the labour income that would be received from the work. Poor households have low levels of income and their children are more likely to engage in economic activities compared to non-poor households. Because of the poverty level, households that do not accrue enough income are more likely to force children to engage in economic work compared to those that are non-poor.

Household income is measured as the aggregate of all the income a household receives through its members or some businesses it runs in cash and in kind. It is measured as the amount of money brought in by an entire household in a year. It is the total amount of income earned by each member of the household annually. It is usually calculated as a gross amount but not the net, meaning the total money of the household before Owings or taxes are deducted. In calculating the household income, the members of the household are allowed to all the income they receive from other sources aside their salary. Such income sources include tips, gifts, rental income, dividends, pension allowances, income from freelance work among others. (Nayak, S., 2013).
Urban-rural status (Residence)

Residence plays a major role in determining the kind of economic activities that children engage in. Children who are located in the rural areas are more likely to engage in agricultural activities which are usually the main occupation of their parents compared to those in the urban areas. However, the informal nature of urban employment also tends to increase the pace at which children engage in economic activities in the urban centres of the country.

4.6 The econometric framework of the probit model

The probit model is a method that can be used in estimating models where the dependent variable has a binary outcome, whether a child engages in child labour or not. It usually takes on two values, a zero (0) if a child engages in child labour, or a one (1) if a child does not engage in child labour, as follows:

\[
\text{Child labour} = \begin{cases} 
1 & \text{if C. lab.} = 1 \\
0 & \text{if C. lab.} = 0 
\end{cases}
\]  

Here, instead of estimating the values of one and zeroes, the model estimates the probability \( p \) that a child participates in child labour as a function of the explanatory variables. If child labour is represented by “C. lab.” then,

\[
1 = \Pr (\text{C. lab.} = 1 \mid X) = F (X^{1} \beta) \tag{4.3}
\]

Thus the probability of child labour= 0, that is ‘no’ is derived as (1-\( p \)).

\[
F (X^{1} \beta) = (X^{1} \beta) = \int_{-\infty}^{(X^{1} \beta)} \phi(z) \, dz \tag{4.4}
\]

As a result, the predicted probabilities lie between the values of zero (0) and one (1). The probit model is estimated by Maximum Likelihood Estimation, and its errors (disturbances) are assumed to follow the standard normal distribution,

\[
(\varepsilon) = \frac{1}{\sqrt{Z \lambda}} e^{-\frac{s^{2}}{2}} \text{ with a variance of 1} \tag{4.5}
\]
The marginal effect for the probit model is derived as:
\[
\frac{\partial}{\partial \beta} = \phi (X_1 \beta)
\]

The marginal effect at the mean is estimated for the average person in the sample as:
\[
\frac{\partial}{\partial \beta} = F (X_1 \beta) \beta
\]

Since it is less likely to find individuals at the mean, the average marginal effect is estimated as the average of the individual marginal effects expressed as:
\[
\frac{\partial}{\partial \beta} = \frac{F (X_1 \beta)^n \beta}{n}
\]

To evaluate the goodness of fit for the probit model, the approach of the percentage of observations correctly predicted can be employed. This is similar to the $R^2$ of OLS. The approach is that if a predicted probability to engage in child labour is more than 0.5, it is assumed Child labour =1, otherwise, it is assumed Child labour =0. This, therefore, results in four possible outcomes as presented in Table 3.1 below:

**Table 4.2: Goodness of fit measure: four probit prediction outcomes**

<table>
<thead>
<tr>
<th>Classified</th>
<th>Actual Child labour=1</th>
<th>Actual Child labour=0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted Child labour = 1</td>
<td>A (True)</td>
<td>B (False)</td>
</tr>
<tr>
<td>Predicted Child labour =0</td>
<td>C (False)</td>
<td>D (True)</td>
</tr>
</tbody>
</table>

Here, there are four cases in which the predicted values of 0 or 1 may yield the results as follows:

- If the child engages in child labour (child labour =1), and the predicted probability, $p>0.5$, result with child labour =1, then the result is a true case (region A).
- If the child does not engage in child labour (child labour =0), and the predicted probability yields $p>0.5$. This will result in child labour =1, this result, therefore, is a false case (region B).
• If the individual actually does participate in child labour (child labour =1), and the predicted probability (p ≤0.5) result with is child labour =0, then the result is also a false case (region C).

• If the child engages in child labour and the predicted probability (p ≤0.5) result with is child labour =0, then this result is a true case (region D). The ratio of correct/true predictions (region A + region B) to total predictions gives the percent of observations correctly predicted. To estimate the household variables and probability that a child participates in child labour, the study follows the probit model specification of Annim, et. al. (2015) as follows:

\[
\text{Child labour =1} = (., h, ...,)
\]

Where,

<table>
<thead>
<tr>
<th>Age of child in years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender of child (Male=1, female=0)</td>
</tr>
<tr>
<td>Household size</td>
</tr>
<tr>
<td>Education level of child</td>
</tr>
<tr>
<td>Employment status of parents</td>
</tr>
<tr>
<td>Total household income (Continuous)</td>
</tr>
<tr>
<td>Household poverty status (1=poor, 0= non poor)</td>
</tr>
<tr>
<td>Location of child (1=urban; 0= rural)</td>
</tr>
</tbody>
</table>
4.6.1 Justification for using the Probit regression model

The dependent variable is assigned 1 if a child is economically active or 0 if otherwise. It is binary as it takes two values. The probit model is popularly used in binary response model of this nature. The probit model uses the cumulative normal distribution function to estimate the $\beta$s.

The binary nature of the dependent variable makes it unsuitable to use the OLS method to estimate a linear function with a binary outcome. This is because the error term would not be normally (randomly) distributed. For the error term to be normally distributed, it must be between negative and positive infinity ($\pm \infty$). But the error term in the probit model takes the value of 0 or 1 for the dependent variable. This means that the variance of the error term depends on the regressors, implying heteroskedasticity (Jones, 2005). Thus, the assumption of the OLS method that the independent variables and the error term must not be correlated is violated in this model. This renders the OLS method inappropriate in estimating this model. The best options available are the probit or logit models.

4.7.0 Interpretation of probit coefficients

As indicated earlier, some of child labour regressors are categorical and others are ratio variables. The probit coefficients are interpreted with regards to sign and significance of coefficient and the magnitude. For those that are ratio variable, a positive sign for the ratio variable such as income indicates that households with higher income levels are more likely to have children engaged in child labour.

Considering categorical variables, the dummy approach of incorporating the categorical regressors is done with reference to a base/reference group. For instance, the variable gender is an indicator variable where the child engaged in labour is either a male or a female. Here the estimation is done considering whether other subcategories are more or less likely to engage in
child labour compared to the reference group, females, and also examine if the difference between the dummy and the reference group is statistically significant.

The interpretation is done with regards to the sign and significance of the coefficient of the dummy variable. If a dummy coefficient is found insignificant, then it means that the probability that, the dummy group would engage in child labour in comparison to the reference group is not statistically different.

4.7.1 Propensity Score Matching (PSM)

In treatment evaluation, matching estimators are applied to estimate treatment effects. The most frequently used application which is the Pair-matching begins by getting for each treated observation a non-treated observation with identical features. As such, the distribution of the characteristics is aligned in the treated and the matched comparison sample. However, the difficulty lies in finding matches that are very similar in relation to all significant covariates. Rosenbaum and Rubin (1983) propose that matching on the one dimensional or propensity score is enough to adjust for the differences in the observed covariates. The propensity score matching (PSM) is a statistical matching technique that attempts to estimate the effects of a treatment, policy, or other intervention by accounting for the covariates that predict receiving the treatment. The advantage of the PSM is that it attempts to reduce the bias resulting from confounding variables that could be found in an estimate of the treatment effect obtained from simply comparing outcomes among units that received the treatment as against those that did not.

The PSM makes use of a predicted probability of group membership which is the treatment versus the control group based on observed predictors, which are normally obtained from probit regression to come out with a counterfactual group.

The standard procedure to PSM can be summarized as follows:
Run a probit regression, where the dependent variable Y=1 if for example a child participates in child labour; Y=0, otherwise. The variables hypothesized to be linked with both the outcome and treatment group must be chosen appropriately. The predicted probability (p) or \( \Pr(Y = 1 \mid X) = F(X'\beta) \), which is the propensity score must be obtained. The propensity score must be checked to ensure that it is balanced across treatment and comparison groups. Also, checks must be made to ensure that the covariates are balanced across treatment and comparison groups. Afterwards, standardized differences or graphs to examine the distributions must be used and each participant must be matched to one or more nonparticipants on the propensity score.

4.8 Data source

The Ghana Living Standards Survey (GLSS6) is the main data source for the study. It applied sampling methods and questionnaires covering the issues of demographics, education, health, employment, housing, etc.

To provide nationally representative statistics, the number of primary sampling units and households were increased to 18,000, which is a 107 percent increment. The GLSS-6 employed a two-stage stratified sampling design where 1,200 enumeration areas were selected to form the primary sampling units at the first stage. The enumeration areas were further divided into urban and rural localities of residence.

At the second stage, fifteen (15) households from each primary sampling unit were selected systematically giving a total sample size of 18,000 households nationwide. Of this number, 16,772 were successfully enumerated leading to a response rate of 93.2 percent.
4.9 Summary

This chapter concentrated on the methodology and the data for the study. The chapter again highlighted the definition of child labour, theoretical conceptualization and the theoretical framework and the methodology of the study. The probit regression estimation was used to find the relationship between poverty and child labour.
CHAPTER FIVE

EMPIRICAL ANALYSIS AND DISCUSSION OF RESULTS

5.1 Descriptive Statistics

The data shows that the survey collected extensive information on children aged 5-17 years which were made up of males and females in a sample of 24,393 households. According to the survey, out of 24,393 households selected there was a response rate of 98.9 per cent. A similar response rate was achieved in all regions and in rural/urban areas. (The survey covered all the ten regions of Ghana). The table below shows the regional distribution of children across the country. In this study, the classification of the age of the child was between 5-17 years.

Table 5.0 Regional distribution of children aged 5-17 years

<table>
<thead>
<tr>
<th>Region</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western</td>
<td>2,317</td>
<td>9.5</td>
</tr>
<tr>
<td>Central</td>
<td>2,081</td>
<td>8.53</td>
</tr>
<tr>
<td>Greater Accra</td>
<td>1,840</td>
<td>7.54</td>
</tr>
<tr>
<td>Volta</td>
<td>2,236</td>
<td>9.17</td>
</tr>
<tr>
<td>Eastern</td>
<td>2,357</td>
<td>9.66</td>
</tr>
<tr>
<td>Ashanti</td>
<td>2,451</td>
<td>10.05</td>
</tr>
<tr>
<td>Brong Ahafo</td>
<td>2,498</td>
<td>10.24</td>
</tr>
<tr>
<td>Northern</td>
<td>3,370</td>
<td>13.82</td>
</tr>
<tr>
<td>Upper East</td>
<td>2,344</td>
<td>9.01</td>
</tr>
<tr>
<td>Upper West</td>
<td>2,899</td>
<td>11.88</td>
</tr>
<tr>
<td>All regions</td>
<td>24,393</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Ghana Living Standards Survey, 2012/2013
For the estimation of child labour, five (5) years old may be considered as extreme, but it is very common in the Ghanaian context (Adenyo, 2013). Therefore for the purpose of this study, only children in the age group 5-17 years were selected since children within this age category can work for pay, profit or in kind.

Table 5.0 above shows the regional distribution of children aged 5-17 years. It can be seen from the table that Northern region recorded the highest number of children (3,370) while Greater Accra recorded the lowest (1,840). The regional distribution of children is important for the analysis since it will provide a good coverage of the number of children located in all the parts of the country.

Table 5.1 Descriptive statistics on children 5-17 years in Ghana

<table>
<thead>
<tr>
<th>Gender</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>12,430</td>
<td>50.96</td>
</tr>
<tr>
<td>Female</td>
<td>11,963</td>
<td>49.04</td>
</tr>
</tbody>
</table>

**Employment status**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>7,042</td>
<td>17,095</td>
</tr>
<tr>
<td>29.18%</td>
<td>70.82%</td>
</tr>
</tbody>
</table>

**Residence**

<table>
<thead>
<tr>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>8,585</td>
<td>15,808</td>
</tr>
<tr>
<td>35.19%</td>
<td>64.81%</td>
</tr>
<tr>
<td>Father's presence</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Yes</td>
<td>15,879</td>
</tr>
<tr>
<td>No</td>
<td>8,514</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mother's presence</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>19,254</td>
<td>78.95</td>
</tr>
<tr>
<td>No</td>
<td>5,134</td>
<td>21.05</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relationship to household head</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Child (son/daughter)</td>
<td>19,073</td>
</tr>
<tr>
<td>Other relative</td>
<td>2,752</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Work done by Father</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional/Technical</td>
<td>529</td>
</tr>
<tr>
<td>Sales</td>
<td>764</td>
</tr>
<tr>
<td>Service</td>
<td>1,530</td>
</tr>
<tr>
<td>Agric/Anim</td>
<td></td>
</tr>
<tr>
<td>Husbandry etc</td>
<td>4,655</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Work done by Mother</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional/Technical</td>
<td>73</td>
</tr>
<tr>
<td>Sales</td>
<td>2,052</td>
</tr>
</tbody>
</table>

57
<table>
<thead>
<tr>
<th>Service</th>
<th>323</th>
<th>5.64</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agric/Anim</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Husbandry etc.</td>
<td>2,813</td>
<td>49.14</td>
</tr>
</tbody>
</table>

**Father’s education**

<table>
<thead>
<tr>
<th>No</th>
<th>3,225</th>
<th>38.19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>5,298</td>
<td>61.81</td>
</tr>
</tbody>
</table>

**Mother’s education**

<table>
<thead>
<tr>
<th>No</th>
<th>3,499</th>
<th>59.69</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>2,362</td>
<td>40.31</td>
</tr>
</tbody>
</table>

**Household farm ownership**

<table>
<thead>
<tr>
<th>yes with deed</th>
<th>10</th>
<th>10.64</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes without deed</td>
<td>57</td>
<td>60.64</td>
</tr>
<tr>
<td>No</td>
<td>27</td>
<td>28.72</td>
</tr>
</tbody>
</table>


From table 5.1 above, it can be shown that, the number of male children who engage in child labour outnumber that of female children in Ghana. This is represented by 12, 430 of male children in the country against 11, 963 children who are females in the country.

Also it can be shown from the table that, more children live in the rural part of the country compared to the urban centres. This is represented by 15, 808 children who live in the rural
communities representing 64.81 percent whiles the number of children in the urban centres is 8,585, representing 35.19 percent.

From table 5.1 above, more children live with their mothers compared to those living with their fathers. This is shown in the table with 19,254 children living with their mothers, compared to 15,879 who live with their fathers.

**Table 5.2 Marginal Effects of the Probit Regression Estimating the Probability that a child engages in child labour in Ghana**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coef.</th>
<th>Std.Err</th>
<th>P&gt;Z</th>
<th>Marginal effects</th>
<th>Std.Err</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>X'tics of HH</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.067***</td>
<td>0.014</td>
<td>0.000</td>
<td>0.012</td>
<td>0.002</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female (Dummy)</td>
<td>0.005</td>
<td>0.007</td>
<td>0.420</td>
<td>0.115</td>
<td>0.143</td>
</tr>
<tr>
<td>Educational status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>education (Ref. cat No education)</td>
<td>-4.738***</td>
<td>0.009</td>
<td>0.000</td>
<td>-0.235</td>
<td>0.187</td>
</tr>
<tr>
<td>Presence of parents</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother's presence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ref.cat)</td>
<td>-1.032284</td>
<td>0.965</td>
<td>0.285</td>
<td>-0.081</td>
<td>0.013</td>
</tr>
<tr>
<td>Household X'tics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hhsize</td>
<td>0.15***</td>
<td>0.015</td>
<td>0.000</td>
<td>0.03</td>
<td>0.003</td>
</tr>
<tr>
<td>Variables</td>
<td>Coef.</td>
<td>Std.Err</td>
<td>P&gt;Z</td>
<td>Marginal effects</td>
<td>Std.Err</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------</td>
<td>---------</td>
<td>-----</td>
<td>------------------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Poverty status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>(Dummy: Non-poor)</em></td>
<td>0.166</td>
<td>0.112</td>
<td>0.137</td>
<td>0.031</td>
<td>0.021</td>
</tr>
<tr>
<td><strong>Ownership of farm</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household have farm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>(Dummy)</em></td>
<td>-4.857</td>
<td>0.57</td>
<td>0.000</td>
<td>-0.099</td>
<td>0.013</td>
</tr>
<tr>
<td><strong>Residence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural (Dummy)</td>
<td>-1.063</td>
<td>0.199</td>
<td>0.000</td>
<td>0.043</td>
<td>0.0356</td>
</tr>
<tr>
<td><strong>Health status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>(Ref cat: Healthy)</em></td>
<td>-0.146**</td>
<td>0.034</td>
<td>0.000</td>
<td>0.007</td>
<td>0.0314</td>
</tr>
<tr>
<td><strong>Region</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater Accra</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>(Reference Category)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western</td>
<td>-0.117***</td>
<td>0.02</td>
<td>0.000</td>
<td>0.468</td>
<td>0.033</td>
</tr>
<tr>
<td>Central</td>
<td>-0.142***</td>
<td>0.02</td>
<td>0.000</td>
<td>0.632</td>
<td>0.023</td>
</tr>
<tr>
<td>Volta</td>
<td>-0.111***</td>
<td>0.01</td>
<td>0.000</td>
<td>0.336</td>
<td>0.034</td>
</tr>
<tr>
<td>Eastern</td>
<td>-0.056***</td>
<td>0.01</td>
<td>0.001</td>
<td>0.629</td>
<td>0.022</td>
</tr>
<tr>
<td>Ashanti</td>
<td>-0.127***</td>
<td>0.02</td>
<td>0.000</td>
<td>0.627</td>
<td>0.024</td>
</tr>
</tbody>
</table>
The discussion in section 5.2 suggests that child labour depends on child age, educational status of the household head, household income, measures of the relative disutility of work and school, the returns to education, household size, gender of the child and the region of location of the child. All these are major significant features of child labour in Ghana. The coefficient of the marginal effects will be used to interpret the outcome of the determinants of child labour in Ghana.

O'Donnell et. al., (2002) identified the ILO definition of the worst forms of child labour includes work that is likely to jeopardize health and safety. Effective targeting of those child work activities most damaging to health requires both conceptual understanding and empirical evidence of the interactions between child labour and health.
From table 5.2 above, there exists a negative relationship between child labour and the health outcomes of the child. This confirms the observed relationships between child labour and health as a negative one by Ray (2002). They can be direct and indirect, static and dynamic, positive and negative, causal and spurious. In Ghana, most children are stressed beyond the required time frame for minimal work (seven hours a week) and therefore lead to the observed relationship between child labour and child health as a negative one. From the results of the study, children who are ill are less likely to participate in child labour than children who are healthy by 0.15 percent. This means that there is a lower probability of children who are already ill or not healthy to be engaged in the labour market.

Similar to a study by Dossa et al., (2011), the age of the child in the household with regards to the involvement in economic activities is very important in the literature, as described as a form of human capital by Gordon and Craig (2001). According to Dossa et al., (2011), age affects the ability of an individual to engage in economic activities with older children being more likely to engage in activities as compared to younger children.

From table 5.2 above, it can be shown that, the age of the child has a positive impact on the probability of the child engaging in child labour. This positive relationship between age and child labour may be taken as an indication that, a child may be allowed to engage in economic activity by an employer when he or she knows the child is healthy and fit enough to engage in work. The marginal effects results indicate that compared to household with children below the economically active age category, children who are active may be employed to engage in work compared to little children below 5 years old. From the analysis, a one-year increase in the age of
the child increases the likelihood of the child to participating in child labour by about 1.2 percentage points.

The educational status of the parents of the child also has a significant influence on the involvement of a child in child labour. In comparison with parents with some level of education, parents with no education level are more likely to allow their children to engage in child labour than parents with some level of education.

According to Jongwe (2014), the educational attainment of the household head of a child has a negative effect on the child’s participation decision in the labour market. Education as a means of human capital endowment constitutes an important determinant of household participation in the labour market. In most instances where there is low level of education, parents are more likely to be poor and therefore forces children to engage in economic activities to supplement household income as compared to well-educated rich homes because rich households can afford good education.

Most households with educated heads earn higher income and therefore have less probability to engage children in labour market at the early stages of life. The negative relationship existing between educational attainment and participation of a child in the labour market is an indication that, non-poor households are less likely to allow their children to engage in work.

According to Bardhan and Udry (1999), the assertion that “if the economy is characterized by small families, families keep children out of the labour force” is not necessarily true. Household refers to a person or a group of related or unrelated persons who live together in the same dwelling and also share housekeeping and cooking arrangements and are considered as one unit, who acknowledge an adult male or female as the head.
In Ghana, a larger household implies that, more income is needed to provide the basic necessities of life for improved livelihoods. Households with a larger size are more probably willing to participate in household chores compared to smaller households as confirmed by Dossa et.al. (2011).

From table 5.2 above, the marginal effects of the household size has a positive relationship with child labour. This means that, for any additional person added to the household, there is a 3 percentage points chance that, a child will engage in child labour. This means that, the household size constitutes a significant determinant of the household’s decision to allow a child to participate in child labour. This confirms the results of the study by Goulart and Bedi (2008) that household size has a positive effect on child labour, meaning that the larger households have a higher likelihood of allowing their children to participate in child labour compared to smaller households.

From table 5.3, the results reveal a significant relationship between household income level and child in labour. This suggests that, the household decision to allow a child to engage in labour may be dependent on the income level which is usually used as a money metric measure of household poverty.

The results again suggest that, an increase in income may force a child to engage in work in order to accumulate some income to supplement the household income. In certain cultures where early skills development form part of early childhood training, it may be common for children to participate in petty trading or farming in other to be well acquainted with the skills of early work experiences even as a child regardless of whether a household is rich or poor.

In other empirical studies, poor households have low levels of income and their children are more likely to engage in economic activities compared to non-poor households. Because of the
poverty level, households that do not accrue enough income are more likely to force children to engage children in child labour compared to when they are non-poor. For instance, Rogerson and May (1995) in their study confirmed that, households from households with poor income level allows their children to participate in work.

There is a universal agreement in the literature that gender constitutes an important determinant of participation in the labour market. An important proportion of the poor in African countries are women who are willing to work to secure their family’s food security and to also supplement their husbands’ incomes.

A study by Maxwell (1998) in Kampala found that women and young ladies constitute a larger proportion of the participants in the labour market. This means that, it is expected that, the participation of young girl child in labour in Ghana may be higher than the participation of young boys. However from the study, the analysis reveals that, the gender of the child is insignificant in the determination of the child labor in the Ghanaian context. The sex of the child has no relationship with child labour.

It is important to underscore the fact that the proximity to schools in some rural areas influences child labour activities. In some communities where children have to walk for several kilometers to attend school may cause their parents to prefer to engage their children in child labour than for their children attend school and risk the effects of long distance walking. Thus some children participate in child labour because the school is too far from their homes or the quality of the nearest school is too poor.
5.3 Propensity Score Matching Results

The regression model employed in the computation of the propensity scores is used to serve as a measure of the impact of child labour on the health and education of the child. Owusu et.al (2011) observed that, the propensity score matching serves as means for balancing the observed distribution of covariates across the treated (thus, child labour participants) and the untreated (non-child labour) groups. The study employed the psmatch2 and att* approaches to estimate the treatment effects.

The distribution of the propensity scores after the matching below confirms that estimation of the p-score effectively balances the participants in child labour and the non-participants of child labour. This is one of the significance of the propensity score matching.

Table 5.3 Indices of the Matching Quality

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pseudo R2 Unmatched</th>
<th>Pseudo R2 Matched</th>
<th>Mean bias Unmatched</th>
<th>Mean bias Matched</th>
<th>Bias reduced (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>-0.785</td>
<td>0.004</td>
<td>-39.86</td>
<td>1</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>(0.019)</td>
<td>(0.9987)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>-0.147</td>
<td>0.002</td>
<td>-24.68</td>
<td>1</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>(0.031)</td>
<td>(0.674)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P-values in Parenthesis Source: Author’s estimation
The table above presents the indices of the quality of the matching process. The outcome shows a substantial decrease in the welfare (education) and health status of the child. From the data above, there is a negative relationship between child labour and education or health.

This means that, an increase in child labour has a negative impact on the education (schooling) of the child. The p-values of the average treatment model show the relationship between child labour and education. The propensity score matching is used to assess the impact of child labor on the health status of the children. From table 4.5 above, it shows that, an increase in child labour has a negative impact on the health status of the child. It also shows that, child labour negatively affects the educational status of the child.

5.4 The Nature of Work-Related Injuries by Sex among 5-17-year olds in Ghana.

This section provides a comprehensive explanation to some of the occupational hazards children face in child labour by the use of statistical inferences with explanations.

Table 5.4: Nature of work-related injuries by sex among 5-17-year olds in Ghana

<table>
<thead>
<tr>
<th>Selected Health Problems</th>
<th>Male (%)</th>
<th>Female (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fractures</td>
<td>49.55</td>
<td>50.45</td>
</tr>
<tr>
<td>Dislocations, Sprains or Stains</td>
<td>46.83</td>
<td>53.17</td>
</tr>
<tr>
<td>Burns or Corrosions</td>
<td>35.53</td>
<td>64.47</td>
</tr>
<tr>
<td>Breathing problems</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Eye problems</td>
<td>56.35</td>
<td>43.65</td>
</tr>
<tr>
<td>Skin problems</td>
<td>54.74</td>
<td>45.26</td>
</tr>
<tr>
<td>Fever</td>
<td>53.67</td>
<td>46.33</td>
</tr>
</tbody>
</table>
The results from the study indicate that children who are ill are less likely to participate in child labour as compared to healthy children by 0.15 percent. Child labour is not without health problems. Table 5.4 provides a comprehensive overview of some of the work hazards children who participate in the labour market face.

In terms of the nature of work-related accident or injuries, 49 percent of male children suffered fractures from child labour whiles 50.45 percent of female children suffered from fractures. In the agricultural sector, 55.88 percent of boys and 44.12 percent of girls were bitten by snakes whiles 54.69 percent of male children and 45.31 percent of female children were bitten by insects. Extreme fatigue recorded 53.7 percent for males and 46.3 percent for female children. Dislocations, sprains or stains among males were 46.83 percent and 53.17 percent among female children. Thus, child labour has adverse effects on both male and female children between the ages of 5 to 17 years old. Among the work-related injuries reported in the GLSS 6 report are fractures, dislocations, sprains or stains, burns or corrosions, breathing problems, eye problems, skin problems, fever, extreme fatigue, snake bite and insect bite among others.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extreme Fatigue</td>
<td>53.7</td>
<td>46.3</td>
</tr>
<tr>
<td>Snake bite</td>
<td>55.88</td>
<td>44.12</td>
</tr>
<tr>
<td>Insect bite</td>
<td>54.69</td>
<td>45.31</td>
</tr>
</tbody>
</table>

Source: Ghana Statistical Service (2012)
The enormity of the figures reported of children who are affected in child labour must prompt the stakeholders of child rights and the government of Ghana to fast-track the fight against child labour in the country.

5.5 Summary

This chapter summarizes the results obtained from the study. The probit regression reveals that, a child's decision to engage in labour is influenced by factors such as age, education, household size, household income and region of location of the household. The Propensity Score Matching analysis reveals a negative significant effect of child labour on child education (schooling) and health.
CHAPTER SIX
SUMMARY, CONCLUSION AND POLICY RECOMMENDATION

6.1 Introduction
This study examined the relationship between selected socio-demographic variables influencing child labour in Ghana. A critical examination of the selected socio demographic variables of child labour was carried out using a probit regression model. This was used to establish the significance of the relationship between the independent variables and the dependent variables. The independent variables were mainly determinants of child labour. The most harmful forms of child labour certainly include those that damage the short and long run health prospects of the working child. To an extent, identification of the forms of child labour that are potentially most damaging to health is not difficult.

6.2 Conclusions
The descriptive statistics of the 2012/2013 GLSS 6 data used in this study shows that boys between the ages of 5-17-years which represent 50.96 percent outnumber girls who represent 49.04 percent. Also, 29.18 percent children are involved in various forms of child labour compared to 70.82 percent of children between the ages of 5-17-years who are not involved in child labour.

Majority of children which represent 78.19 percent live in the same household with their parents whiles 11.28 percent of children do not live with their parents but live with distant or non-relatives. Since most children live with their parents, it is surprising why there are high incidences of child labour in Ghana. This may be explained by the low earnings of parents which
may not be enough for the upkeep of the household and as a result children in the household may be forced to work in order to earn income to support the upkeep of the household as explained by Basu and Van (1998).

The Ghanaian data which is the GLSS 6 confirms the popular claim that child labour is more of a rural phenomenon although child labour is also found in the urban areas as well. From the GLSS 6 data, 64.81 percent of child labourers between the ages of 5-17-years live in the rural areas whiles 35.19 percent live in the urban areas. The huge difference can be explained by the fact that the rural areas do not have numerous basic schools which are easily accessible to the rural communities as the rural communities have most of their schools in dilapidated conditions. However, the urban areas have a lot of basic schools as well as international and private schools which accords the urban dwellers the privilege to choose among the best schools. It is therefore common for children in the rural areas to participate more in child labour and less in schooling whiles children in the urban areas attend school the most with just a few involved in child labour.

The probit regression results show that the age of the child is an important determinant of child labour. Older children between the ages of 10-18-years have a higher likelihood of participating in child labour than younger children below the age of 10 years. This confirms the findings of Canagarajah and Coulombe (1997) that older siblings engage in child labour compared to younger siblings.

The size of a household is also an important cause of child labour according to the results from the regression estimates. Household with many members may have challenges in meeting the basic needs of its members if the members do not earn substantial amount of income. As such, child labour may become paramount to sustain the day-to-day feeding and health of the members.
in the household. Blunch and Verner (2001) argue that children in households with more members are most likely to engage in child labour as compared to children in households with few members.

Children working under appalling conditions in construction, mining and manufacturing face immediate threats to their health which are all too often realized. However, the majority of working children are not found in these sectors but in agriculture. While the safety record of agriculture is very far from exemplary, threats from health hazards must be set against the possibility that the working child sustains its own health by helping to maintain subsistence living standards of the family.

From the study, there exists a negative relationship between child labour and the health outcomes and the education level of the child. A probit regression was applied to all the selected variables in order to capture the predictor of child labour. Region by Region analysis shows that age of child, literacy of head of household and residence made strong significant statistical contribution to child labour in Ghana. In other words, these variables may contribute to child labour in all the ten regions of country. Other variables that made significant statistical contribution to child labour from the regression estimation are employment status, gender of the child, size of household, income of the household, residence of the child and health status of the child.

The probit regression results show that children who are in school have a lesser likelihood to participate in child labour. Since schooling takes more of the useful hours of a child, little or no time will be available for a child to engage in child labour on a full-time basis even though there is the possibility for a child to combine working and schooling in the event of economic hardship in the family. Thus education plays a very critical role in ensuring that the incidence of child labour is dealt with.
6.3 Policy Recommendations

This research work used the probit regression model to analyse the data generated in the 2012/2013 GLSS 6 data set. Based on the results of the analysis, it is suggested that government of Ghana should continue with policies that will encourage children all over the country to attend school.

First, the 2012/2013 GLSS 6 data show that child labour negatively affects the health and schooling of children. This affects the human capital development of children and the country at large. Hence, there is the need to sensitize the public through awareness-raising campaigns to educate the public on the negative effects of child labour on the child and the progress of the community as a whole.

Parents must be educated to engage their children in age-appropriate tasks rather than engaging their children in child labour.

National policy-makers, farmers, local government authorities and all other stakeholders must be sensitized on the issue of child labour especially in areas such as the occupational health, safety and the consequences of child labour. Stakeholders in education should give proper and fruitful implementation of educational policies.

Besides, agencies responsible for ensuring child rights laws must work efficiently so that the interests of children are protected and promoted.

Since household poverty is one of the main causes of child labour in Ghana, it is recommended that income-generating jobs and decent works be promoted among parents who as a result of economic hardship engage their children in child labour. Such income-generating activities include growing and selling seeds for agricultural production and rearing of livestock.
must also be a deliberate policy to create decent work programmes and opportunities in areas with high incidence of child labour in order to deal with the root cause of child labour that affects the rural communities.

Financial inclusiveness and the accessibility of productive assets must be made readily available in the rural communities in order to reduce the incidence of child labour and poverty. Financial institutions such as banks, savings and loan institutions must be encouraged to operate in the rural areas so that the poor can borrow and invest in their farming or other business activities.

Rural people must be given the access to market and small-scale business operators must be given loans with no interest rate or very little and affordable interest rate in order to give people in the rural areas access to loans to expand their businesses.

The study finds out that there is a negative correlation between child labour and the health of children. This must draw the attention of the government, parents and non-governmental organizations of the need to sensitize the general public of the repercussions of child labour and hence adopt measures to deal with child labour. Child labour must be discouraged in any form, kind or shape nation-wide.

There must be an effective task force charged with the duty to monitor and apprehend children involved in labour and the parents of such children must be brought to book.

To actualize this, local authorities such as the Metropolitan, Municipal and District Assemblies must enact bye laws that prohibit children between 5 and 17 years from engaging in child labour.
The regression results show that the educational status of the child negatively affects the possibility of a child participating in child labour. Children who are schooling are less likely to be engaged in child labour compared to children who are not schooling.

Therefore, an effective way to tackle child labour is to ensure that basic education is indeed free and accessible to communities which are prone to child labour. Jobs must be created in poor communities which must employ the aged in order to allow children to concentrate on their educational development.

Non-governmental organizations, social organizations and churches should target empowering illiterate and unemployed parents particularly those without any gainful employment in skills development programmes to reduce poverty and child labour.

Also, they must work to support less privileged, orphans, deprived and brilliant but needy children in society. This can be done by providing vocational training and skills to poor parents and child labourers as well.

There must be a vibrant political advocacy at the political front for feasible legislation and implementation of stringent laws that will help reduce the incidence of worst forms of child labour. When the government sensitizes the public on the need to eradicate child labour and it implements laws to deal with it in areas where child labour is dominant, the incidence of child labour will be reduced in Ghana.

The public and the private sectors must be encouraged to create jobs in the rural areas which are dominant in terms of child labour incidences. In this regard, government must give tax holidays
to investors who do business at deprived locations of the country and priority given to adherence to the local content law of Ghana in a bid to ensure that rural folks are given opportunity in employment by these investors. Businesses must be encouraged to adopt responsible principles not to endorse child labour by employing children.

The Social Protection Mechanisms of the state such as LEAP, School Feeding programme, Free Health Insurance for the aged and Children should be given a critical attention. Implementing institutions of these interventions such as the Department of Social Welfare and Community Development, Ministry of Gender, Children and Social Protection and the National Insurance Authority should be well resourced with the needed funding, logistics and human resource to effectively and adequately attend to the needs of their target groups.

This would enable the School Feeding Programme unabatedly provide nutritious meals to pupils of deprived communities were child labour according to the findings is dominant. This would enable those who as a result of poverty would have dropped out of school and engage in economic activities in order to educate themselves stay in the classrooms to learn.

The free insurance scheme for children would also ensure that those already affected with the adversities of child labour are given the needed medical attention to avoid future complications and pre-mature lost of human capital to the nation.

Poverty is identified as one of the main reasons why parents allow the kids to engage in child labour so as to augment the incomes of the households. It is therefore, recommended strongly to
government and its partners to have a second look at the amounts given to the beneficiaries under LEAP. The amount given should be reviewed upwards periodically to match with prevailing economic indicators. The programme should be scaled up to rope in more people who are in same category of economic suffering. This will ensure that deprived parents have enough to cater for the needs of their children in school and the households to avoid the temptation of trading their education with economic survival.

6.4 Limitation of the Study

The variables that were included in the estimation solely depended on variables that were recorded in the 2012/213 Ghana Living Standard Survey because the study relied on secondary data. This, therefore, implies that some other relevant variables that were not captured in the data set of the GLSS were left out in the analysis.

For instance, a variable such as the quality of school facilities in a locality and availability of teaching and learning materials in a school will be crucial in determining whether or not a child will be in school.

Also, the issue of missing values in the data set made it difficult for it to be used in the estimation.

6.5 Recommendation for further Studies

The findings and results from the study raise questions that need to be answered in further researches.

Does the culture of a society have any bearing in children engaging in the labour market in Ghana?
Does household ownership of land or the size of land owned or the mode of operation among others reduce or increase the likelihood of children’s participation in the labour market or it reduces or increases the health implications of child labourers in Ghana?

Does household ownership of agricultural assets in the form of livestock increases child labour and school attendance and health risk of the labourers?

For instance, small animals require less capital to maintain relative to labour. Ownership of large herds of animals requires more labour, especially that of children.

Hence, for these to be examined on the health effects of child labourers, these assets must be disaggregated. It is therefore, important that further studies take into account the disaggregated assets in order to properly inform policy.
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