# THE DETERMINANTS OF CHILD LABOR IN UGANDA: EVIDENCE FROM THE UGANDA NATIONAL HOUSEHOLD SURVEY 2019/20

**BY**

**ATUHEIRE BEN**
**20/U/GAEE/ 13395/PE**

**A DISSERTATION SUBMITTED TO THE DIRECTORATE OF RESEARCH AND GRADUATE TRAINING IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF DEGREE OF MASTER OF ARTS IN ECONOMICS OF KYAMBOGO UNIVERSITY**

**JULY 2024**

## DECLARATION

I, **ATUHEIRE BEN** hereby declare that this dissertation titled ***"THE DETERMINANTS OF CHILD LABOR IN UGANDA: EVIDENCE FROM THE UGANDA NATIONAL HOUSEHOLD SURVEY 2019/20"*** is my original work. It has never been submitted to this, or any other institution for any degree award.

SIGNATURE_____ DATE_____

**ATUHEIRE BEN**

**REG NO: 20/U/GAEE/13395/PE**

## APPROVAL

We as University supervisors confirm that the dissertation titled ***"THE DETERMINANTS OF CHILD LABOR IN UGANDA: EVIDENCE FROM THE UGANDA NATIONAL HOUSEHOLD SURVEY 2019/20"*** has been done by the candidate under our supervision.

SIGNATURE_____ DATE_____

**PROFESSOR FRANCIS NATHAN OKURUT (PHD)**

Department of Economics, Faculty of Social Sciences Kyambogo University

SIGNATURE_____ DATE_____

**DR. KENNETH TINDIMWEBWA (PHD),**

Department of Economics, Faculty of Social Sciences, Kyambogo University

For and on behalf of Kyambogo University

## DEDICATION

First and foremost, I dedicate this work to the Almighty God, my Family, my lecturers and friends for their over whelming support, advice and encouragement that you gave me during this research project.

## ACKNOWLEDGEMENT

Above all, I thank the Almighty God for the protection, wisdom and grace that has enabled me to successfully come to the end of this research report and complete this Masters program. May his name be glorified forever!

I wish to extend my sincere gratitude, appreciations and thanks to Prof. Nathan Francis Okurut and Dr. Kenneth Tindimwebwa for their professional endless technical support, wisdom, contribution and parental guidance that enabled me produce this Dissertation. May God reward your effort abundantly.

My colleagues both in cohort 2 and cohort 3 of Masters of Arts in Economics who have shown cooperation all through, may you continue to excel in your endeavors.

My sincere appreciation goes to my dear and lovely wife Nabaasa Esther for you are a warrior; my children Atuheire Treasure Triumph, Atuheire Blessing Bennie, Atuheire Victorious Shield, Atuheire Favor Light, Atuheire Shalom Anchor for you have always been there for me. My parents Canon Twinamasiko Charles and Mrs. Florence Twinamasiko, my brothers Mr. Musinguzi Frank and Mr. Tukamwesiga Emmanuel for you have always believed in my potential and the entire family members who have always stood with me in my education. May God continue to bless you all!

## LIST OF FIGURES

## LIST OF TABLES

## LIST OF ABBREVIATIONS

| | |
|---|---|
| ILO | International Labor Organization |
| NDP | National Development Plan |
| NGO | Non-Governmental Organization |
| PDM | Parish Development Model |
| SDG | Sustainable Development Goals |
| UNHS | Uganda National Housing Survey |
| UNICEF | United Nations Children's Fund |
| UPE | Universal Primary Education |
| USE | Universal Secondary Education |
| UPOLET | Universal Post O'level Education and Training |

## TABLE OF CONTENT

## ABSTRACT

This research investigated the determinants of child labor in Uganda. The objectives of the study were to investigate the effect of the individual, household and community characteristics on child labor. The study used Uganda National Household survey (UNHS) 2019/2020. The study used a Logit model to estimate the determinants of child labor in Uganda. The key findings suggested that child labor was positively and significantly influenced by age of the child, sex of the child, size of the household, biological father dead, residence of the household, parents level of education, distance to the source of firewood and sector of employment. However, child labor was negatively and significantly influenced by household income, region of location and distance to the source of water.

The key policy recommendations of the study were; on distance to fire wood, government should enhance awareness of the population on measures to reduce environmental degradation through afforestation, reforestation, agroforestry, and preservation of the natural forests; government promote household access to clean sources of energy such as solar energy, biogas and rural electrification; on distance to the water source, government of Uganda should put in place measures to reduce distances covered to access clean water by drilling boreholes, facilitating poor households to construct water harvesting tanks and improving on existing wells.

.

# CHAPTER ONE

# INTRODUCTION

## 1.0 Introduction

This section covers the background to the study, statement of the problem, purpose and objectives of the study, research questions, hypothesis of the study, conceptual framework, significance, justification and scope of the study, and operating definitions of the basic terms used

## 1.1 Background to the Study

World over children being engaged in labor force is a concern that has appealed to the attention of economists and other researchers to formulate policy.

Child labor has evolved over years and stretches way back before 19$^{th}$ century that is between 1843- 1864 where children worked in various fields in order to support family' income. Such fields included textiles, coal mining, brickworks, potteries, food industry, leather work, metal work as well as woodwork. The trend continued to increase until 1920' due to absence of laws to protect children(Cummings, 2016).

Today, child work remains not only a national or regional concern but universal problem that calls for a global policy intervention. UNICEF (2021) shows a worldwide rise in the figure of children in the workforce. Over 160million of the children engaged in workforce are aged between 5-17 years where 79 million participate in dangerous activities. This stalls the previous achievement in 20 years of reduction that saw child labor drop by 94million in the period 2000-2016.

ILO (2021), report explains that since its inception in 2000 when it started its work of monitoring child labor, children participating in exploitative labor declined by 94 million at the end of 2016. However, the number came to a standstill between 2016 and 2020 as illustrated in the figure below;

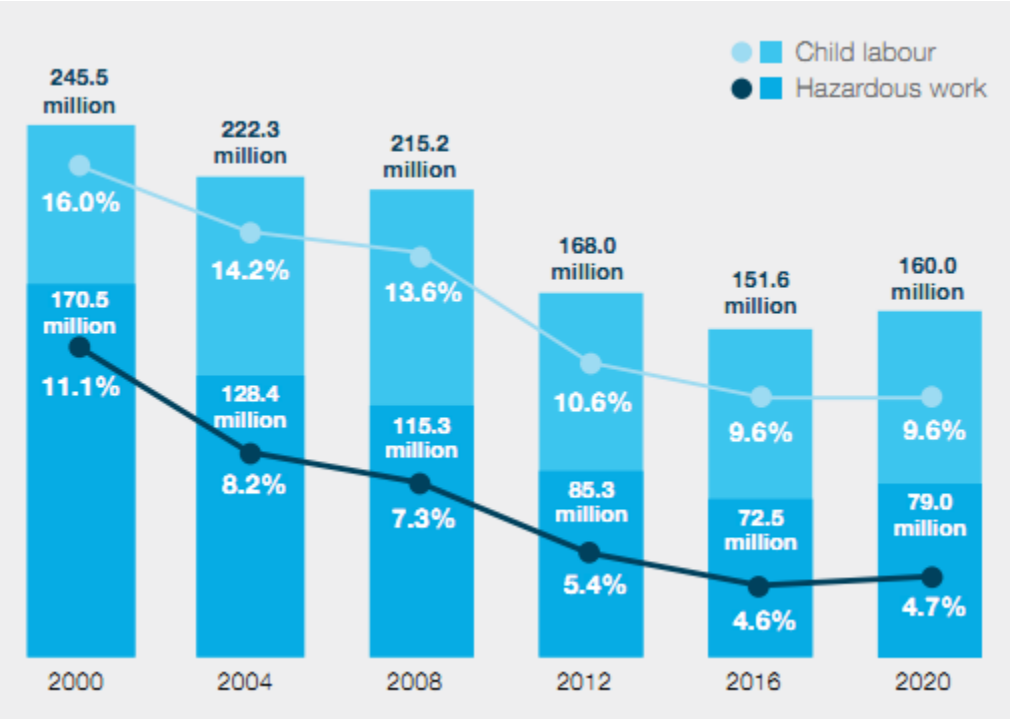


**Figure 1. 1: Global Child Labor Trends from 2000 To 2020**

***Source: UNICEF 2021***

From the figure above, child labor global estimate figures for children aged 5-17yrs who are in hazardous activities increased from 151.6million in 2016 to 160million in 2020. Thus, a contradiction to the target 8.7 set at the global level in sustainable development goals (SDGs) that puts emphasis on the speedy operational actions against obligatory labor and put to an end the destructive practices of child labor by 2025.

The dire consequences of such hazardous work on children are exhibited in different forms such as damage on their physical, psychological and emotional development. Child labor thus becomes a hindrance to children enrolment or regular attendance of school, prevents them from acquiring essential skills a prerequisite to transition from school to future opportunities and decent work (Balochistan et al., 2018).This results into child poverty and household income insecurity at a household level which affects the long-term macro-economic sustainable goals creating cycles of intergenerational poverty(Abebe & Fikre, 2021).

The above argument is supported by empirical evidence from Guler & Gary, (2015) in his study, child labor in sub-Saharan Africa remain eminent in rural settings as compared to urban settings especially in domestic and agricultural work where 82% children in a household work as a way to support the scarce resources. Guler & Gary, (2015) further explains that many poor rural families in Africa live on a pre-conceived traditional belief that if a given household is to come out of poverty children should engage in labor market. This however, exposes them to the danger associated with working without protective gears such as overalls, gloves, helmets while spraying chemicals, construction, hot temperatures (Summary, 2020).

In Uganda the story is no different from that of Africa and other parts of the globe, actually given the magnitude of this vice the pangs of child work bite more in the pearl of Africa, as National child policy (2020), puts it that more than 2 million children aged 14-17years participate in the destructive economic activities such as mines, which expose them to life threatening chemicals and risky machinery, whereas others toil as house helps.

According to UNHS 2019/2020, child work is seen as manipulative, exploitative and harmful in nature which erodes the integrity, wellbeing, security, bodily and emotional development of

children and thus requires immediate policy action to address it. Therefore child labor is a common phenomenon that is highly manifested in sectors like agriculture, informal sector, construction, service industry such as hotels that are hell bent on maximizing profits by exploiting cheap and readily available labor by employing children (T. H. E. Republic & Health, 2019).

Child work are activities that rob the young generation their ability, prospects and self-worth, it thus limits their access to school, is detrimental to health of children which results into trauma, injury or even death. Thus, work to be classified as child labor, factors such like age, number of hours worked, nature of activities carried out and the effect of this work on school attendance should be considered (Bouke, 2021).

It is important to note that Uganda has put in place several policies to protect besides liberating children from the cancer and abyss of harmful work, the current one being the child policy 2020, but in realty child labor remains a horror and nightmare to be uprooted. The constitution of Uganda postulates that children up to 16years of age should be sheltered from any form of manipulation. They ought not to be hired or seek employment in unsafe work especially work that would interfere with their growth and educational achievement. Therefore, children should only engage in activities that are light in nature such as light or light job done during holiday's housework (UNICEF 2021).

Based on national regulation on child labor, UNHS 2019/2020 classifies child labor as follows;

1. 5-11 years those participate in economic activity.
2. 12-13 years, those do work beyond the light work.
3. 14-17 years, those that participate in hazardous work

UNHS 2019/2020 further asserts that child labor is an obstacle to SDGs achievement such as quality and education for all as well as expanding opportunities to acquire free primary and secondary education that opens up for a lifetime learning. The future of these children to acquire knowledge and skills required expanding their opportunities to amore gainful employment and ending the viscous cycle of poverty is sacrificed at the altar of supplementing their family's available income (David Thomas, 2022).

The above scenario becomes a bottleneck to the National development plan three (NDP111) programme 12, Human Capital Development Program whose aim is to increase productive capacity of the population for increased competitiveness and better quality of life for all highlights the key expected results of increased proportion of labor force transiting to gainful employment and increased years of schooling (Papers, 2021).This is further emphasized by the Parish development model(PDM) where in its priority three talks about education of children right from kindergarten, primary, secondary and technical schooling as a way of enhancing human capital development (Of & Government, 2021b).

Empirical evidence is therefore required to provide evidence on the existence of child labor so as to help policy makers like ministry of gender and labor development, NGOs as well as partners who include donors to put in place evidence-based policies and interventions tailored to specific causes (David Thomas, 2022). The researcher therefore was interested in looking at holistic approach of unearthing factors that force children to work. Therefore, this called for an investigation into individual characteristics, household characteristics and community factors if the above is to be realized.

## 1.2 Statement of the problem

Child labor is a hindrance to children enrolment or regular attendance of school, prevents them from acquiring essential skills which is a prerequisite for transitioning from school to future opportunities and decent work(Maxime, 2021). Edmonds (2016), established that child labor is like vicious cycle that results into a trap, where disadvantaged child laborers are immersed in activities such as mining, prostitution, grazing, working on construction sites, fishing that deprive them of their education and causing them diminished physical and mental health. This could be due to social-economic factors such as poverty, age of the child, employment status of the household head cause child labor. This stops children from contributing to economic development of Uganda(Summary, 2020).

These factors motivated policy makers in the Ugandan government to put in place interventions that were aimed at reducing child labor such as National child labor policy 2020, the constitution of Uganda 1995 that emphasize that children below 18 years should be sheltered from manipulative work though these policies are riddled with poor or no enforcement. To improve welfare and human capital development the government has also put in place UPE and USE as one of the mechanisms to ensure that even children of the poor can access free education (UNICEF 2021) though these interventions put emphasis on tuition other costs such books, lunch, transport, development fund, cost of utilities such as water, low teacher children ratio that call for financial support from parents remain a hindrance to enrolment and retention of children at school. Child labor in Uganda remains a challenge and an economic concern for example two million children remain in child labor with one million children aged 14-17 years in dangerous activities (UNHS 2016/2017). This coincides with the increase in global trend that has continued to increase since

2016 at 151.6million to 160million in 2020(UNICEF 2021). This poses a threat to global target 8.7 of the sustainable development goals that aims at ending any form of work that is hazardous to children by 2025. This research therefore aimed at finding out whether this could be due to individual, household, community characteristics were the determinants of child labor. The findings of this study therefore provided insight to policy formulation and evidence-based decision making to policy makers.

## 1.3 Objectives of the study

### 1.3.1 General objective

To investigate the determinants of child labor in Uganda

### 1.3.2 Specific objectives

a) To examine the effect of individual child characteristics on child labor
b) To evaluate the effect of household characteristics on child labor
c) To investigate the effect of community characteristics on child labor

## 1.5 Hypotheses of the study

a) There is no significant effect of individual characteristics on child labor
b) There is no significant effect of household characteristics on child labor
c) There is no significant effect of community characteristics on child labor

## 1.6 Significance of the study

This study derived conclusions that facilitated policy makers, development partners, donors and other stakeholders to design interventions and programs that are tailored to address child labor. The study therefore provided evidence based on understanding of the phenomenon by investigating the influence of individual, household and community characteristics to gain greater intuition on determinants of child labor.

The study also added on the body of knowledge by filling the gaps left by other scholars on the understanding of child labor problem in Uganda. This acted as spring board for future researchers who would be interested in the same area. Thus the purpose of this research was to examine the determinants of child labor in Uganda.

## 1.7 Justification of the study

Uganda's population is dominated by children below the age of 18years. This signifies that the future of Uganda lies in the potential in terms of human capital. Economists and policy makers have come to a consensus that for a country to grow and achieve faster economic growth and development must invest in human capital accumulation by equipping its young population with relevant knowledge and skills. The empirical literature shows that child labor robes the young generation the opportunity to contribute to the future national development by hindering them from acquiring education. This study had to be conducted to inform policy based on evidence if sustainable development is to be attained.

## 1.8 Scope of the study

### 1.8.1 Content scope

This study examined the determinants of child labor in Uganda by taking into consideration the individual, household and community characteristics.

### 1.8.2 Geographical scope

The study covered the whole Uganda as envisaged by the generalizations of the UNHS 2019/2020.

### 1.8.3 Time scope

This study covered UNHS data for the period 2019/2020

## 1.9 Ethical Considerations

The researcher engaged the university authorities to obtain clearance to be presented to the UBOS to obtain the dataset of UNHS 2019/2020. This data was strictly used for this research. This data was not transmitted in any form to any other party unless it is for purposes of corroboration of findings by the supervisors of this study.

## 1.11 Operational definitions

**Child labor:** This refers to any activity that is detrimental to child's health, mental and body development done by any one below the age of 18years. It is child labor because children are supposed to be at school not working. Any activity that interferes with their enrolment or their remaining at school is child labor.

**Dangerous work:** this refers to any work that hinders any form of growth and development of a child. Example of such work include working without protective gears that leads to exposure to harmful substances by the child; working for long hours; working throughout the night; heavy work such as sand, gold, fishing and stone quarrying; walking for long distances in such of markets for products, fetching water and fire wood on a long distance; working under extreme temperatures; working under coercion, pressure of force.

**Light work:** work or activity that helps a child to learn a skill without causing harm or damage to their mental, physical or health of the child. Examples include guided work by the parent such as harvesting coffee, millet, cleaning utensils and this work is done without interfering with school enrolment and retention.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

This chapter scrutinizes theoretical and empirical literature findings to evaluate the determining factors of children engaging in labor market. The analysis is given in sub-headings to appreciate aspects related to the study.

## 2.2 The theoretical background

### 2.2.1 The two essential assumptions theory

The theoretical framework available show that parents can only send their children in labor market due to low income. Economists believe that households with low or no source of income have no option for them to survive only if children contributed their share of labor to generate additional income to survive.

According to (Basu, 1998),whose theory underpins the study using  two assumptions theory that is the luxury and substitution. The luxury axiom states that children of the rich hardly work even in the least developed countries. This is due to the fact that parents remove their children from workforce the moment they get the ability to do so. Not working is seen as “luxury good” to the poor households, they thus opt out of work as soon as their earnings are enough to support them.

Mwebaze, (2007) agrees to assertions by Basu that, when the parents earn meager income to sustain and secure the livelihood of a given household children are forced to go and find work.

Thus, children work as a way of response to eventualities brought about by being laid off from work, poor crop yield and other disruptions to the household earnings. Children find no option but to find work to support themselves and their young ones.

He further notes that family size is interlinked with child labor in that the bigger the family, the lower is income per head. This becomes a motivation to parents to allow their children to go and work. With fixed amount of factors of production such as farmland, implements, capital among others, the marginal returns from a worker in a household output declines which may push the children to get jobs outside(Van, 2009).

Child labor also may reduce the attitude about the cost of children upbringing which becomes an incentive to have bigger families. This increased fertility reflected in expanded household in return demand for the increased income. Thus, a bigger labor force and this sabotages education of the future parents. Whereas, a small household, given current earnings results into more resources available for human capital accumulation. Therefore educated parents with higher levels of education may have a small number of children who are well educated due to diminished demand to secure their future against low or no incomes (Cummings, 2016).

The second assumption of (Basu, 1998), is the ‘substitution axiom’ which states that children and adults are alternatives to each other, most importantly is that this assumption emphasizes that adult labor can be substituted by child labor. The family preference is binary in nature and takes on values of 0 and 1.

According to (Basu, 1998), using overlapping generation hypothesis an individual lives in two periods, as a youngster and as mature. One may choose to work or go to school, thus to be productive as an adult is a result of sum of human capital accumulated as a child. Accumulating no human capital as a child result into an adult with little or no income other factors held constant and this would force them to send their children to work on a fulltime basis resulting into a trap in child labor. This theory suggests a negative relationship between education and child labor in that the more one is educated the more the likelihood of them taking their children to school.

### 2.2.2 Minority group theory

This has its origins in the early research about poverty. It is grounded on the features that describe poverty among some groups of people. According to Rowntree (1901), incomes that are low to sustain individuals by meeting their basic needs is detrimental. The theory shows that households whose sole bread winner has died; has been incapacitated accident, illness, or old age; has lost the job; has irregular earnings, the size of the household is large and the wage is small; this may cause children to descend into poverty. Since poverty is the breeding ground for child labor, children eventually find themselves in child labor.

### 2.2.3 The human capital theories

According to Schultz (1961), education can improve the way individuals accomplish tasks in terms of quality which results into an increase in earnings by both households and a country. The theory is built on the endogenous model of growth by the neo-classical theorists. This is premised on the assumption of productivity caused by education attainment. Based on the economic status of a given house hold; a parent makes a choice between studying and working. Thus, whether a child

should work or not depends on the parents' willingness and ability to invest on Childs' schooling as determined by the returns expected from education. The more the economic benefits of education the lower the number of hours a child will work.

## 2.3 Empirical literature

### 2.3.1 Effect of individual child characteristics on child labor

One of the factors that influence children to participate in child activity is age. As children grow the more, they are interested in working. Muhumuza Tony (2012) asserts that age of the child laborer was found to be positive and significant especially for the girl children are more likely to engage in early in the labor market. Other studies in support of the age variable include (Adisa, 2016; Carraso, 2017; Nana & Ayifah, 2018;UNICEF, 2020; Sherkhan, 2021), in their respective studies found out that age and child labor were positively and significantly related.

According to Abou, (2016) in his study reexamination of the factors that influence child involvement in the labor market using multinomial logit in Cote d'Ivoire he considers age structure of siblings in a given household that is where the household size is large and is dominated by a lower strata of the age bracket example 0-4 years. This increases the demand for childcare workers. Because of low levels of income to employ extra labor to do this work, these families would opt to employ older children to look after the young ones thus a positive relationship between age of household and child labor.

Francesca (Carraso2017, Abidemu Toyasu Adisa (2016), in their findings assert that age of the child was positive and significant in influencing child labor. Children above 12years were more interested in working in order to earn a living as compared to those below 12years. Their findings

corroborate with Muhumuza Tony (2012), Nana & Ayifah, 2018), that age was positive and significant especially to the girl child because they tend to start working at an early age as compared to boys. UNICEF (2020), in its report however reveals that 25 percent of children in age 14-17 years had freely decided to work compared to 10 percent of those aged 5-11 years.

Sex of the child is another is another factor that influences child labor. Bonomelli Carraso (2017) studied the determinants of child labor in Chile used a probit model and found out that sex of the child was positive and significant. The study argues that boys were likely to engage in early work than girls.

According to (Björkman-nyqvist, 2013) Sex of the child plays a big role on whether a child should work or not that is parents especially in rural areas can only cater for both girls and boys when their incomes are stably increasing. Satriawan & Ghifari, (2018) agree to this assertion that the earnings of the parent had a big role to play in determining whether a child should work or not. This contrasts with Muhumuza (2012), whose study was on market access and child labor in rural areas of Uganda whose study found out that girl child tends to start work early. The studies by (Nana & Ayifah, 2018; Carrasco, 2017), support the above assertion that being a male or female child increased the chances of participating in child labor.

Adisa (2016), Household headship was found to be positive and significant, the findings are in line with Carrasco, (2017), in his paper the Determinants of Child and Adolescent Labor in Chile argues heading a family by a child influenced the extent to which he/she engaged in the labor market to cater for the household needs.

Orphanage is another factor that explains why children end up in work than going to school. Death of one or both parents creates parenting as well as financial abyss that leaves children with no option but to be in child labor. The situation becomes worse where both parents are dead, irrespective of the age such find no option but look for work to survive. Using probit model, Maxime, (2021)the study found out that losing the father was positive and statistically significant in influencing child labor whereas mother's survival was not, this is attributed to the supervisory role a father plays in a household.

The findings of (Carraso, 2017; Maxime, 2021) agree on residence factor that there is a high likelihood of children in hard to reach areas(remote) areas who start doing work at extremely young age. The findings show a positive and significant relationship between children in rural areas and child labor as compared to those in relatively urban areas. These studies collaborate with Adisa (2016), in his study using Tobit and Logit model observes the distance between home and school being long positively and significantly influenced the probability of a child seeking local employment opportunity.

Biological children often have the privilege and chance from their parents who support them to achieve by ensuring they are enrolled to school as compared to adopted children. Empirical evidence shows that being a biological child reduces the probability of a child working compared to adopted child. Thus, having a relationship with household head irrespective of their gender reduces the probability of participating in child labor as compared to a relative (Maxime, 2021).

Marital status of the child is also an important consideration when looking at the determinants of child labor that is according to (Abou, 2014), using a probit model found out that whereas boys as they grow the parents prefer to use them in labor supply girls would be forced out of school to

get married. This means that as children get married, they have to work to find means to cater for their needs and survival of the family. This therefore indicates positive relationship between a child being married and child labor(Yinusa, 2006).

### 2.3.2 Household characteristics and child labor

Parents' level of education is another factor that negatively and significantly affects child labor. Perikh and Sadoulet (2018) whose study was on the effects of parents' occupation on child labor and school attendance in Brazil used probit model in their analysis and found out that the more educated a parent is the more likely they will send their children to school than to allow them engage in labor market. Therefore children whose mother was less educated and the father is illiterate irrespective of the place of residence were more likely to engage in child work. Abou, (2014) puts more emphasis to this; attainment of a higher levels of education especially secondary education and above by the head of the family, increases the chance of the child enrolling for school compared to joining the labor force. However, at lower levels of education their selective labor supply that parents find no reason to keep children in school than sending boys to labor markets to earn a living and marrying off the older girls. Other studies with similar findings include (Carrasco, 2017; Lambon-quayefio & Owoo, 2021;Hasyim,Puspitasari, Veriyanto, 2022;,), in the respective studies concluded that parents level of education influenced their decision on whether to send their children to work or to school.

In addition to the above empirical findings, education level especially of the father has a significant effect on child engaging in the labor market since he has influence on the decision on resources and the type of activity children should do. This is because education level increases access to finance. This helps in facilitating children education; thus given preference of educated parents to

have their children achieve, there is a high propensity to demand for education by these parents compared to less educate (Maxime, 2021).

Health status of the parents is another determinant of child labor, Acheampong and Weichiano (2015), who used a probit model in the analysis of the study on household shocks and child labor in Nigeria found out that health shocks such fathers' illness or disability affected his ability to carry on the daily household economic activities to generate income. This reduces the parents' means to provide the basic needs and children are seen as the alternative way to work and look after their sick parents (Dinku et-al, 2017).

Involvement in non-farm activities that is according to Paper, W. (2012), in his study market access and child labor in rural areas of Uganda used a probit model found out that household involvement in farm and non-farm activities positively and significantly effected child participation labor market(Edouard & Abou, 2016). Probability of a child whose parents derive their living in petty trade, hawking, roadside markets, daily markets starting work at an early age is high compared to one whose parents have a stable source of income. Parents are compelled to use their children or higher labor of children because it is either cheap or easily accessible (Alessandro, 2011).

Maxime, (2021)study on factors that determine child labor in Cameroon using a bivariate probit model put emphasis on the size of the household and the results showed existence of a statistically significant negative relationship of smaller numbers of households with child labor. Evidence shows that large families enjoy economies of scale due to their numbers it is easy for them to accomplish in a short period giving such household advantage of survival reducing the probability of children in such households to be engaged in child labor thus a negative relationship. This

research therefore is to establish whether the economic theory hypothesis that sets the a priori expectation for the existence of positive and significant relationship between big size household and child work is true.

Household size is another important factor to note. From the empirical studies, the variable was positively and significantly impacted on child involvement in the labor market that is the larger the houses hold size, holding other factors constant, the more likely the children will engage in labor market. The reason being that resources are stretched to provide for the growing number of family members most of whom are dependents which forces parents to send older children to engage in labor market to supplement the meager available sources of earnings. (Hallaq & Khalifah, 2022; Nana & Ayifah, 2018;Dinku, 2017; Adisa, 2016;Bandara et-al, 2014; Okurut and Yunisa2006, Lal, 2019; Abebe and Fikre, 2021). Their study relates to (Satriawan & Ghifari, 2018)who found a positive a significant relationship between the large number of young siblings in the household and child participation in the labor market.

Sector of employment of the household that is living in a household whose head works in public sector, financial institution, NGO, international organization, is an indicator of the ability to send children to school compared labor market. The results therefore showed that being in formal sector negatively and significantly affected child labor thus children in such households were more likely not to work than when their parents were not working in the formal sector such as agriculture and industrial sector ( Alessandro, 2011;Abou , 2014; Lambon-quayefio & Owoo, 2021).

Poverty level of the household is another factor that plays a significant role in the study of child labor. Children from poor backgrounds suffer numerous challenges that force them out of school,

such may include hunger, luck of scholastic materials assuming there is free education. Parents have no other option but to let them look for survival (Veriyanto et-al, 2022; Abou, 2016).

In addition to above, income of a household determines whether a child works or not, according to Fatima (2013), in the study of economics of child labor in Pakistan used a probit model found out that households with lesser resources have lesser available resources for child to develop their potential and enable them in their career growth. Thus, positive and significant relationships exist between households with inadequate resources and child labor.

Mothers bargaining power that is according to (Fatima, 2013), the study shows that mothers bargaining power negatively and significantly affected the decision to engage a child in the labor market. Mother's capacity backed by resources to spend on the child the way she likes and having the ability to make a choice like a man gives children advantage to further their studies. This study is supported by findings of Lal, (2019)that revealed that children whose mother was less educated and the father is illiterate irrespective of the place of residence was more likely to engage in child work. Majeed &Kiran (2019) in their findings agree that when women are empowered to decide on issues such as family planning, their chance of allowing their children to work reduces than when they when they do not have the ability to do so. Thus, women with ability to decide on their education, number of kids to produce, what to consume have the ability to decide to send or not to send children to work. The logistic results in this study show a negative statistically significant relationship between women level of education and child labor(Report, 2013)

UNICEF (2021) shows no much diversion from other studies a number of children are driven into child work for reasons beyond their control example households with economic challenges related

to financial resources such as sudden loss of a job by the household head. Children are left with no option but to work as slaves, prostitution and economic exploitation.

Guler & Gary, (2015), in their report argue that children are forced into child labor not voluntarily but out of coercive circumstances to make ends meet. This is in situations where families are indebted, have poor access to credit, rely on a single income, or children have lost adults to illness. This finding is linked to Abou, (2014) evidence from the study shows that poor households are vulnerable and this puts them on pressure to send their children in the labor market.

Area of residence is another determinant of child labor that is support by empirical evidence.

On residence Abou, (2014), argues that the difference in both rural and urban setting of various regions can determine whether a child goes to work or not. The urban dwelling offers a more robust environment to access and utilize social amenities like schools, however the increased rural-urban migration can be detrimental due to its associated problems like unemployment that results into urban poverty that have a negative impact on schooling. In support of this assertion, Maxime, (2021), argues that children in rural areas tend to join labor force early compared to children born in urban setting. Therefore, above studies show being in rural area positively influenced children to work.

Sector of employment of the household other factors held constant determines whether a child goes to school of participates in labor market. (Paper, 2012) in their report argues that child labor is strongly associated with households whose major economic activity is farming. This is due to the fact that in Uganda agriculture uses labor intensive technology that requires more labor to be employed. The available cheap labor is that of children in a given household a household that relies

on agriculture as source of employment has high chances of engaging children in work. These activities require additional cheap labor which they easily substitute with child work. (Rotondi & Billari, 2022).

However, a study by(Wisborg et al., 2022) in the research of factors that determine of child labor in Ethiopia and Uganda using a probit model tend to disagree with the findings above. Their findings tend to emphasize that fair trade in the coffee especially in growing areas such as Eastern Uganda improved secondary and primary enrollment, fair trade play significant role in reducing child labor

### 2.3.3 Community characteristics and child labor

In instances where education is not apriority, Anumaka (2013), asserts that rural and poor communities are more entrenched in their cultures that education is considered an opportunity cost to modeling a child's ethics, power of personality and commerce. Child engaging in the labor market is common where education for women is seen as expensive and unaffordable thus a luxury to the poverty stricken parents(Moyi, 2011). A policy designed to curb down child labor in such circumstances may create more challenges; especially if working is out of the need to meet the basics of life, halting such work could force them into more exploitative and hazardous environments like prostitution, mines where work impose greater danger and much risk in bid to continue supporting their families(Bandara et al., 2015).

Edmonds, (2016) further in his findings reveals that child labor is like vicious cycle that results into a trap, where disadvantaged child laborers are immersed in activities that deprive them of their education and causing them reduced bodily and emotional health, thus as they grow old, they into

poverty compared to their age mates who did not work but attended school. This is because they live a lifetime of unskilled labor and low earnings (Coon, 2016).

Poor families grapple to make ends meet due to increased vulnerability and they struggle to provide basic scholastic materials such as textbooks, uniforms and transport to school thus forcing parents to halt education of children to join work force. Unfortunately, once children drop out of school to earn money they hardly return(Guler & Gary, 2015).

In line with the above argument, availability of educational materials such as the canteen, electricity and drinking water are important factors that motivate a child to stay at school. These variables such as canteen, electricity and drinking water are found to be negative and statistically significant. Thus results from studies indicate that increase in supply of such variables significantly reduce child labor(Abou, 2014).

Source of energy is another factor that is electricity simplifies work in household that have access to national grid and work that would have forced children to sit down and do is done by electrical appliances(Economics & Library, 2014). Such gadgets such as washing machines, cookers make work much easier, compared to households whose source of energy is firewood, where children trek kilometers to fetch firewood in gazetted government forests. Such families would rather have their children at home than send them to school(Webbink et al, 2010).

In addition to the above, most families in Uganda capitalize on fuel wood as their energy source; resulting into not only environmental degradation but have negatively impacted the attendance of school by children (Marieke, 2014; Abigaba et-al, 2016, Alinaitwe, 2021).

### 2.3.4 Synthesis of literature review

From the literature reviewed, the following variables statistically and significantly determine child participation in the labor market;

Sex, Marital status, biological status, Age, Education level and Orphanage of the child; Occupation, household size, Marital status, Mothers level of education, Fathers level of education, Residence, Credit access, Food access, Sector of employment, remittances, Land ownership, Electricity consumption (access to national grid), Source of firewood, Source of drinking water.

The empirical evidence from economic analysis shows that there is a higher probability of engaging in labor market; when Sex of the child is boy, when the child is married, when he is being raised by non- biological parents that when a child has lost both parents, likely hood of working rises as age of the child also increases, the child is less educated that child who drop out in lower primary are more likely to work than those who continue in upper secondary, the child has one or none of the parents especially not having the father, comes from a low income or poor house hold, comes from the household that derives its livelihood from the agricultural as permanent source of income, comes from a large household with many siblings in the lower strata of the age group, comes from a polygamous marriage, the mother is less educated, the father has lower level of education, the child comes from a household located in the rural setting, the household cannot access from a financial institution, child comes from a household that has no access to enough food, the household does not receive remittances, household owns land, has no access to electricity national grid, household has no source of firewood, household has no access to national water meter.

**Research gap**

Whereas the above factors influence child labor, in Uganda individual characteristics such as age of the child, sex of the child, biological relationship; household characteristics such as size of the household size, income, sector of employment, education of the parent; community characteristics such as residence, region, distance to the source of water, distance to the source of firewood are yet to be investigated.

### 2.3.5 Conceptual framework

The study was based on the following conceptual framework. This is a hypothesized model identifying the concepts under study and their relationships. Child labor is dependent upon individual, household and community characteristics. The moderating variables such as government policy, entrenched cultural beliefs affect this relationship between the dependent and independent variables.

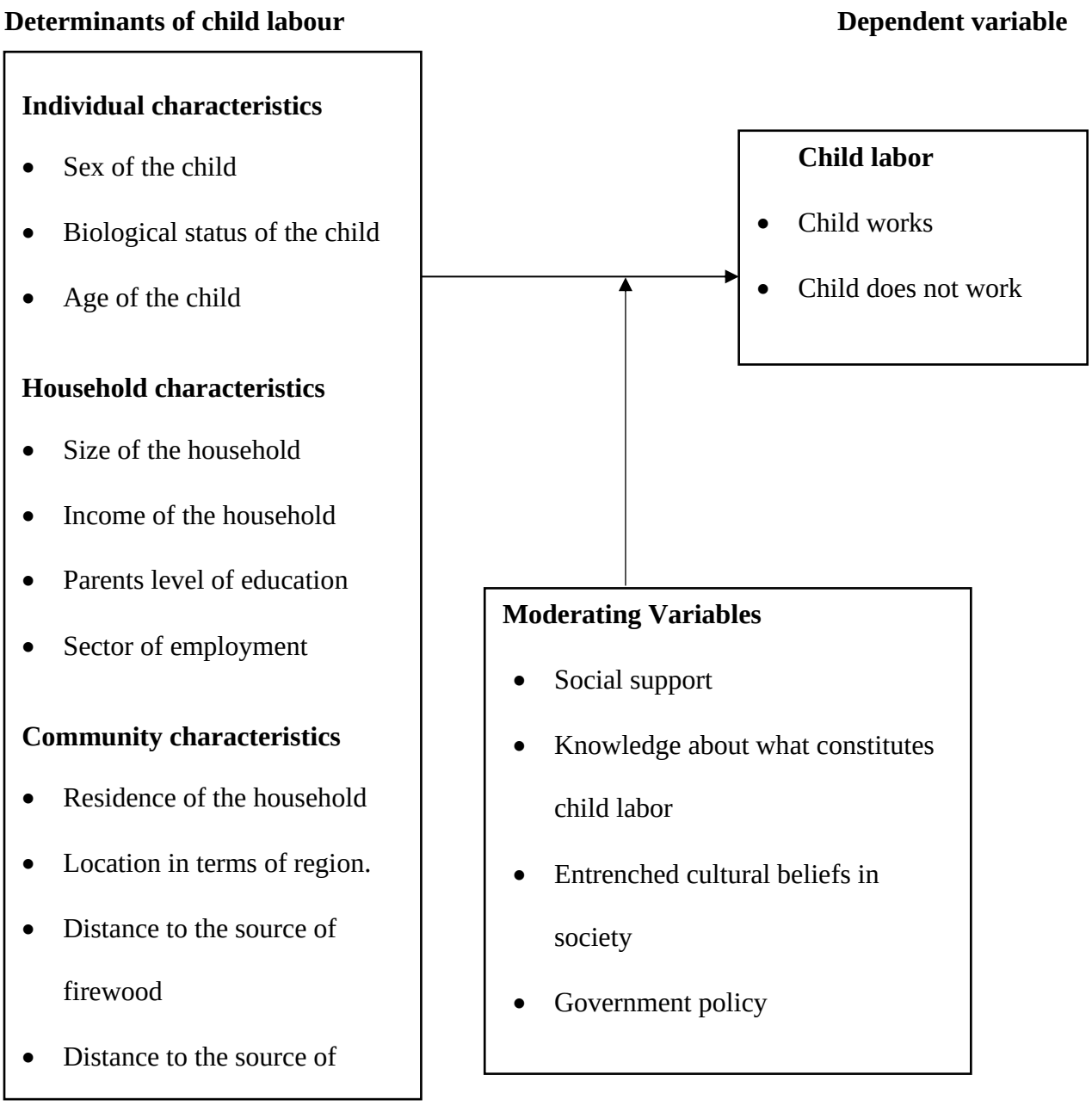


**Figure 2. 1: Conceptual framework**

***Source; Authors' conceptualization of theoretical and empirical literature (2023).***

# CHAPTER THREE

# METHODOLOGY

## 3.0 Introduction

This section is a layout of the steps the researcher used while examining determinants of child labor in Uganda. It includes the Data types, Data sources and Analysis and specification of the econometric model, variable definitions and expected signs.

## 3.1 Data type

This research used secondary data that was extracted from the UNHS 2019/20 data sets. This data was collected through socio-economic, labour force, informal sector and community modules from all the 129 districts of Uganda at that time. The weights were used for generalisation of the findings (UBOS).

## 3.2 Data source and analysis

The relevant data sets were extracted from the UNHS 2019/20 data sets. The weights were used for generalisation of the findings (UBOS).

Logit model was used to examine in what way the various expounding variables affect the dependent variable of individual features such as age, gender, household and community characteristics. As a way of establishing relationship between the independent and dependent variables, a bivariate analysis was done. Cross tabulations of independent variables and dependent variables done, analysis of the results executed.

### 3.3 Model estimation

The study proposed to use probit model but the test of normality of residual did not follow a normal pattern then adopted a logit model to analyze data on child labor. This model is derived and specified using Wooldridge (2013). The logit model was considered appropriate because it does not assume normality, linearity, or homoscedasticity assumptions (Statistics, 2018; Wright, 1995). The probability of the child working is a binary response variable denoted by two outcomes (=1 if a child is working otherwise zero) derived as below;

$$Prob(y = 1|x) = \frac{e^{x\beta}}{1 + e^{x\beta}}$$

$$Prob(y = 0|x) = 1 - \left(\frac{e^{x\beta}}{1 + e^{x\beta}}\right)$$

Where $y = Child\ labor (= 1\ if\ child\ works, or\ 0\ otherwise)$

$x$ =*Matrix of the independent variables*

$\beta = vector\ of\ the\ parameter\ estimates$

Child labor=f ($x_1$, $x_2$, $x_3$ μ)

Where, $x_1$= individual characteristics of the child, $x_2$= household characteristics, $x_3$=community characteristics, μ=the error term

The study used one model that incorporated all the three variables that is the individual (age, sex, biological status); household (Household income, sector of employment, size of the household, level of education of the parent) and community characteristics (region of location, residence, distance to the source of water, distance to the source of firewood).

**Child labor=** $\beta_0 + \beta_1$age_child + $\beta_2$ sex_child+ $\beta_3$ bio-child + $\beta_4$Hhincome+$\beta_5$Sector_empl + $\beta_6$ loc_HH+ $\beta_7$ size_HH+ $\beta_8$educ_parent + $\beta_9$res_HH + $\beta_{10}$Dist_to_water source + $\beta_{11}$ Dist-to_source_of_fire_wd + $\mu$

The study first tested for the relevance of the probit model for the study using the normality test for residuals from the probit regression and because residuals were not normally distributed logit model was estimated (see discussion of results in chapter 4) that presents the marginal effects from the logit model.

**Table 3. 1: Variables definition of the model and their priori expected signs**

| **Variable** | **Definition** | **Hypothesized signs** |
|---|---|---|
| Child _activity | Child labor (=1 if child works, zero otherwise) | Child works |
| | **Child characteristics** | |
| sex_child | Dummy for gender of the child (=1 if Male, zero otherwise) | + |
| age_child | Age of the child in years | + |
| bio-father_live | Dummy for biological status of the child (=1 if biological father dead, otherwise zero) | + |
| | **Household characteristics** | |
| HHsize | Dummy for the household size (2=4-7 members, 3=7-25 members) | + |

| | | |
|---|---|---|
| HHincome | Dummy for Household income (2=500,001-1,000,00, 3= 1,000,001-280,600,000) | - |
| Fathers_educ_level | Dummy for fathers' level of education (1=No education, 2=primary education,3= secondary education and above) | + |
| Mothers-educ_level | Dummy for mothers' level of education (1=No education, 2=primary education,3= secondary education and above) | + |
| Sector_empl | Dummy for the sector of employment (=1 if employed in agriculture =2 industrial) | + |
| | **Community characteristics** | |
| res_HH | Dummy for residence of household (=1 if the household is in the rural area, =0 otherwise) | _ |
| loc_HH | Dummy for the geographical location (1=North, 2=East, 3=West) | - |
| Distance to fire_wd | Dummy for the source of firewood by the household (2=3-5kms,3=5-8kms,4=8kms and above) | - |
| Distance to Wat_Drink | Dummy for distance to the source of water by the household (1=0-3kms,2=3-5kms, 3=5-8kms) | - |

# CHAPTER FOUR

# EMPIRICAL DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

## 4.0 Introduction

This section presents the empirical results of the estimated model and the interpretation. The study presented, interpreted and discussed bivariate analysis. The study aimed at examining the determinants of Child labor in Uganda. Data was analyzed using Stata version 15 software. The sample weights were used in the analysis to generate nationally representative results. The first part of this chapter is on cross tabulations between individual, household, community characteristics and child labor.

Being aware of the negative consequences of the child participating in the labor market, and its effect on complete growth of children upon whom sustainable development is built, the global agenda of sustainable development goals (SDGs) has put in place target 8.7 which calls for speedy operational action against destructive work that undermines children by 2025 (ILO 2021). Several local restrictions and legal provisions have been put in place to fight the vice of child working including the constitution of Uganda 1995, child labor policy 2020. To intuitively understand the intensity of the matter, this section presents the analysis of the descriptive and econometric results using the UNHS data 2019/2020.

### 4.1 Description of the model variables

**Individual child characteristics:** They include age, sex, and biological position of the child.

Sex of the child is included in the model in dummy form with female as the base category**.** UNHS collected data on employment for persons aged 5 years and above and as per the Uganda constitution 1995 and child labor policy 2020, a child is any person below the age of 18. For purposes of this study child working was interpreted to mean those aged between 5 -18 completed years. The biological status was formed as a categorical variable (1 = father dead; 0 = one father alive).

**Household characteristics:** The household characteristics include education level of the father, education level of the mother, sector of employment, size of the household and household income. The education level of the household head was entered as dummy variables for each of the categories (no education, primary education, secondary education and above as the base category).

For the sector of employment of the household, three categories were identified using separate dummies: Agriculture sector, industrial sector and service sector as (reference category). Household size of the household was captured in three separate dummies that are 4-6, 7-25 and 0-3 as reference category. Income of the household head was captured in three separate dummies that are 500,001-1,000,000, 1, 000,001-280,600,000 and 0-500,000 was used captured as a reference category.

**Community characteristics:**

The community characteristics include residence of the household, location, and distance to the source of drinking water, distance to the source of firewood. Residence of the household was entered as a dummy variable for rural and urban as a reference category; location was captured in four separate dummies that are North, East, West and Central was entered as reference category. Distance to the source of water was captured in four separate dummies that are 0-3kms, 3-5kms, 5-8kms and 8+ kms as a base category. Distance to firewood was captured in four separate dummies that are 3-5 kms, 5-8, 8+ kms and 0-3 kms as the base category.

The dependent variable was a categorical variable which captured the selection of the individual into any of the two child labor categories that is 1=children who are working and 0=those not working.

### 4.2 Bivariate Analysis

This part presents the cross tabulations. These were done using the weighted samples for a national representation as follows;

**Table 4. 1: Results for Sex of the child and Child labor**

| **Sex of the child** | **Child labor** | | |
|---|---|---|---|
| | **Child not Working** | **Child working** | **Total** |
| Male | 3,294,087 | 259,492 | 3,553,579 |
| | 48.32% | 54.96% | 48.75% |
| Female | 3,523,106 | 212,657 | 3,735,764 |
| | 51.68% | 45.04% | 51.25% |
| **Total** | **6,817,193** | **472,149** | **7,289,343** |
| | **100%** | **100%** | **100%** |

First row has *frequencies* and second row has *column percentages*

From table 4. 1 above gives the distribution of the status of the child either working or not working by sex of the child. Of the 6,817,193 children who were not working, 48.32% were males and 51.68% were females; however, the interests of this study were children who were working. The same procedure of looking at children who were working shall be adopted for the entire cross tabulations.

Among the 472,149 children who were working, the male was more likely to work at 54.96% of the total respondents compared to female children at 45.04% of the total working children. This is because parents tend to protect females due to their vulnerability and their nature which they believe cannot allow them to do certain activities such as working on construction sites, bricklaying, and quarrying, working overnight, spraying herbicides in agricultural fields. The results of this study agrees with empirical evidence that boys were likely to engage in early work than girls as also asserted by (Carraso, 2017) in the study determinants of child labor in Chile used a probit model. In agreement with this is (Björkman-nyqvist, 2013) whose study findings show that parents especially in rural areas can only cater for both girls and boys when their incomes are stably increasing otherwise boys would be preferred to work than girls. Other findings in agreement with the above result include (Nana & Ayifah, 2018; Carrasco, 2017), that being a male child increased the chances of one to participating in child labor.

**Table 4. 2: Results for Fathers Education Level and Child_labour**

| **Fathers Education Level** | **Child_labour** | | |
|---|---|---|---|
| | **Child not Working** | **Child working** | Total |
| No Education | 1,578,457 | 41,386 | 1,619,843 |
| | 27.4% | 34% | 27.5% |
| Primary Education | 2,627,405 | 58,722 | 2,686,127 |
| | 45.54% | 47.71% | 45.59% |
| Secondary and above | 1,563,113 | 22,978 | 1,586,091 |
| | 27% | 18.67% | 26.92% |
| **Total** | **5,768,974** | **123,087** | **5,892,061** |
| | **100%** | **100%** | **100%** |

First row has *frequencies* and second row has *column percentages*

From table 4. 2 above among the 123, 087 children working, children from households whose father have primary education tend to work at 47.71% followed by those with no education at 34% of the respondents. Lastly it is evident that children from families whose fathers have secondary education and above are less likely to participate in labor market at 18.67%. Ceteris paribus, the higher the level of education, the higher the level of income thus fathers being bread winners, when their earnings increase, they prefer to send their children to school than to work. This is supported by empirical evidence from(Shahzad et al., 2022;Bau et al., 2019;Abou, 2014).

**Table 4. 3: Results for Mothers Education Level Child_labour**

| **Mothers Education Level** | **Child_labour** | | |
|---|---|---|---|
| | **Child not Working** | **Child working** | Total |
| No Education | 1,123,129 | 43,422 | 1,166,550 |
| | 29.1% | 43% | 29.4% |
| Primary Education | 2,031,465 | 48,235 | 2,079,700 |
| | 52.54% | 47.72% | 52.41% |
| Secondary and above | 712,171 | 9,431 | 721,602 |
| | 18.42% | 9.33% | 18.19% |
| **Total** | **3,866,764** | **101,088** | **3,967,852** |
| | **100%** | **100%** | **100%** |

First row has *frequencies* and second row has *column percentages*

From table 4.3 above among the 101,088 children working, children from households whose mother has primary education tend to work at 47.72% followed by those with no education at 43% of the respondents. Lastly it is evident that children from families whose mothers have secondary education are less likely to participate in labor market at 9.33%. Mothers with no or primary education are likely to produce more children, are less economically empowered in terms of property rights and can hardly contribute to family decision making. On the other hand however mothers with secondary education and above are more likely to earn more, know the benefits of education, own assets and can support their families to send their children to school(Saqib et al., 2022).

**Table 4. 4: Results for location Child labour**

| Region | Child_labour | | |
|---|---|---|---|
| | **Child not Working** | **Child working** | **Total** |
| Central | 11,025,631 | 180,007 | 11,205,639 |
| | 27.47% | 38.13% | 27.60% |
| Eastern | 10,499,285 | 119,528 | 10,618,812 |
| | 26.16% | 25.32% | 26.15% |
| Northern | 8,348,816 | 85,973 | 8,434,789 |
| | 20.80% | 18.21% | 20.77% |
| Western | 10,255,624 | 86,642 | 10,342,265 |
| | 25.55% | 18.35% | 25.47% |
| **Total** | **40,132,878** | **472,150** | **40,605,028** |
| | **100%** | **100%** | **100%** |

First row has *frequencies* and second row has *column percentages*

From table 4.4 above, among the 472,150 children who engage in child labor, being in central makes a child more vulnerable to child labor at 38.13% as compared to Eastern at 25.32%, Western at 18.35% and lastly Northern at 18.21%. This could be attributed to the effect of rural urban migration where most people move the central region being a home of Kampala the capital city of Uganda and in search for better employment opportunities. Due to the cost of living in terms of rent and feeding, they end up in slums and others end up sending their children to work as housemaids, working on building construction sites, working in abattoirs, landing sites, factories, garbage collection and the worst-case scenario being sent into child prostitution for female children, child trafficking asking for alms on streets in order to support the meager income of a given household. The above assertion agrees with Abou (2014) findings that increased rural-urban migration can be detrimental due to its associated problems like unemployment that results into urban poverty that have a negative impact on schooling.

**Table 4. 5: Results for Residence Child labor**

| Residence | Child labor | | |
|---|---|---|---|
| | **Child not Working** | **Child working** | **Total** |
| Rural | 29,486,770 | 350,954 | 29,837,724 |
| | 73.47% | 74.33% | 73.48% |
| Urban | 10,646,108 | 121,196 | 10,767,304 |
| | 26.53% | 25.67% | 26.52% |
| **Total** | **40,132,878** | **472,150** | **40,605,028** |
| | **100%** | **100%** | **100%** |

First row has *frequencies* and second row has *column percentages*

From table 4.5 above, among the 472,150 children working, being from a household located in rural areas increases the likelihood of child involvement in labor market represented by 74.33% as compared to those whose residences are in urban areas represented by 25.67%. This is due to the fact that most activities that consume a lot of time such as agriculture, mining, charcoal burning are located in rural areas. Also, most rural areas are so remote and hard to reach making them inaccessible to schools which makes child labor the opportunity cost to education. This is supported by Abou (2014), in the study that looks at the difference in both rural and urban setting of various regions argue that urban dwelling offers a more robust environment to access and utilize social amenities like schools.

Also, poverty coupled with illiteracy may prevent parents in rural areas to see the future benefits of investing in human capital development of these children. Irrespective of programs such as UPE and USE the cost of education remains high for the low-income earners especially the subsistence farmers in terms of feeding, transport and other scholastic materials. Also, in urban setting parents are more likely to be having formal jobs that do not require additional labor as compared to

informal and agricultural sectors in rural areas. The above assertion corroborates with empirical findings of (Carraso, 2017; Maxime, 2021)that agree on residence factor that there is a high likelihood of children in hard to reach areas(remote) areas who start doing work at extremely young age.

**Table 4. 6: Results for Biological Father Alive Child_labour**

| **Biological Father Alive** | **Child_labour** | | |
|---|---|---|---|
| | **Child not Working** | **Child working** | **Total** |
| Father Not Alive | 19,649,721 | 278,576.5 | 19,928,297 |
| | 48.96% | 59.00% | 49.08% |
| Father Alive | 20,483,158 | 193,573 | 20,676,731 |
| | 51.04% | 41.00% | 50.92% |
| **Total** | **40,132,878** | **472,150** | **40,605,028** |
| | **100%** | **100%** | **100%** |

First row has *frequencies* and second row has *column percentages*

From table 4.6, above among the 472,150 children participating in child labor, 59% of them had lost their fathers as compared to 41% of the children who had their fathers live. This shows that children who had lost their fathers were more disadvantaged in terms of basic needs as compared with those with biological fathers alive. These findings agree with the study by (Maxime, 2021), who found out that biological children often have the privilege and chance from their parents who support them to achieve by ensuring they are enrolled to school as compared to adopted children. This signifies that being a biological child reduces the probability of working as compared to a child whose father is dead. Thus, having a relationship with household head irrespective of their gender reduces the probability of participating in child labor as compared to a relative.

**Table 4. 7: Tabulation of House Hold Size Child_labour**

| Household size | Child_labour | | |
|---|---|---|---|
| | **Child not Working** | **Child working** | **Total** |
| 0-3 | 6,525,686 | 88,757 | 6,614,443 |
| | 16.28% | 18.80% | 16.31% |
| 4-6 | 18,772,295 | 190,693 | 18,962,988 |
| | 46.83% | 40.39% | 46.76% |
| 7-25 | 14,787,383 | 192,699 | 14,980,082 |
| | 36.89% | 40.81% | 36.94% |
| **Total** | **40,085,364** | **472,150** | **40,557,513** |
| | **100%** | **100%** | **100%** |

First row has *frequencies* and second row has *column percentages*

From table 4.7 above, of the 472,150 who engage in child labor, 40.81% are from households with bigger size of members between 7-25, followed by children from households with 4-6 members at 40.39% and lastly small size households of 0-3 members are less likely to send their children into work representing 18.8% of the total number of respondents. By intuition, the smaller the number of household members, the more likely it is sustainable to provide for their basic needs such as school fees, food and shelter and the less likely children will be forced to go and work. On the other hand, however, large numbers of household members are more likely to stretch the available resources forcing parents to send older children to work to supplement their siblings. However according to the study done by (Maxime, 2021) in the study the determinants of child labor in Cameroon using a bivariate probit model finds out that the size of the household has a statistically significant negative relationship with child labor. Maxime, (2021) based his argument on evidence that large families enjoy economies of scale. Due to their numbers, it is easy for them to accomplish in a short period giving such household advantage of survival reducing the probability of children

in such households to be engaged in child labor. Thus, a negative relationship yet the sign should have been positive that is the bigger a household is the more likely child labor; this is because of its effect on the resources available that is due multiple competing needs. Such households send their children to work so as to contribute to family survival.

**Table 4. 8: Sector Results for employment of Child_labour**

| **Sector of employment** | **Child_labour** | | |
|---|---|---|---|
| | **Child not Working** | **Child working** | **Total** |
| Agriculture, forestry and fishing | 10,989,683 | 261,831 | 11,251,514 |
| | 68.67% | 70.32% | 68.29% |
| Industrial | 1,124,318 | 67,307 | 1191625 |
| | 7.03% | 22.53% | 7.23% |
| Services | 3,717,519 | 143011.3 | 3860530 |
| | 23.23% | 7.15% | 23.43% |
| **Total** | **16,003,680** | **472,150** | **16,475,829** |
| | **100%** | **100%** | **100%** |

From table 4.8 above, of the 472,150 children working in this study, majority are engaged in agricultural sector representing 70.32%. This category is followed by the industrial sector at 22.53% of the respondents and lastly the service sector at 7.15%. This therefore means that child labor is more entrenched in agricultural settings that require use of labor intensive technology as compared to other sectors of the economy where jobs are formal and would require a certain standard in form of age and education(Rotondi & Billari, 2022). Children are looked at as cheap source of the labor required to facilitate agriculture production. Such activities may range from grazing, chasing birds for areas that grow rice, coffee harvesting, cotton harvesting, and spraying herbicides among other activities. (Abigaba et al, 2016). In industrial sector, the sector is dominated by small scale processing industries that are manually operated which calls for cheap

labor. this results into proprietors employing cheap child labor(Njieassam, 2023). Besides parents who work in service or production sector prefer to have their children attend school than working.

**Table 4. 9: results for Household Income Child_labour**

| **Total household monthly income** | **Child_labour** | | |
|---|---|---|---|
| | **Child not Working** | **Child working** | **Total** |
| 0-500000• | 29,727,053 | 306,017 | 30,033,070 |
| | 74.16% | 64.81% | 74.05% |
| 500001-1000000• | 5,241,347 | 86,877 | 5,328,224 |
| | 13.08% | 18.40% | 13.14% |
| 1000001-280600000 | 5,116,964 | 79,255 | 5,196,219 |
| | 12.77% | 16.79% | 12.81% |
| **Total** | **40,085,364** | **472,150** | **40,557,513** |
| | **100%** | **100%** | **100%** |

First row has *frequencies* and second row has *column percentages*

From table 4.9 above, of the 472,150 total number of children who were engaged in child labor, majority of the children belonged in the lower strata of the income category of 0-500,000 representing 64.81%of the total number of respondents, followed by category of 500,001-1,000,000 representing 18.40% of the total number of respondents. The last category of respondents is that of 1,000, 001-280,600,000 representing 16.79% of the total respondents. These results show that children in low-income households are more at a risk of working than attending school. This is due to poverty of these households preferred to send their children to work to supplement the meager earnings of the parents. Also, the inability of these households to provide basic needs including scholastic materials makes these children vulnerable to work. On the other hand however, child work tend to reduce as incomes of the households increase, this agrees with

the theory of Basu, (2008),where he used two assumptions that is the luxury axiom: children of the rich hardly work even in the least developed countries. This is due to the fact that parents remove their children from workforce the moment they get the ability to do so. The study emphasized that working is seen as “luxury good” to the poor households, they thus opt out of work as soon as their earnings are enough to support them.

### 4.3 Regression Model

The probit model was first estimated using the robust stata command that gives robust standard errors free from heteroscedasticity. To test for normality of the residuals to see whether they are normally distributed (prob chi2>0.05);

Ho: Residuals from the probit model were normally distributed

Ha: Residuals are not normally distributed

If the probability of the chi-square is greater than 0.05, we accept the null hypothesis and conclude that residuals are normally distributed; if the probability of the chi-square is less than 0.05, we reject the null hypothesis and conclude that the residuals are not normally distributed.

**Table 4. 10: showing test for normality of the residuals**

| . sktest resid | | | | | |
|---|---|---|---|---|---|
| Skewness/Kurtosis tests for Normality | | | | | |
| | | | | joint ------ | |
| Variable | Obs | Pr(Skewness) | Pr(Kurtosis) | adj chi2(2) | Prob>chi2 |
| resid | 11,696 | 0.0000 | 0.0000 | 0.000 | |

***Source:*** Own computation

From the table above, results show that the probability of the chi squared is less than 5% (0.000), we reject the null and conclude that the residuals from the probit estimation are not normally distributed. We therefore used the logit model for estimation of the regression using the same data.

**Marginal effects after logit**

The marginal effects results of the logit model on determinants of child labor are presented in table 4.11 below

| | | | |
|---|---|---|---|
| y | = | Pr(Child_labour) | (predict) |
| = | | | .03120382 |

**Table 4. 11: results for Marginal effects after logit**

| Variable Names | dy/dx | Std.Err. | Z | P>z |
|---|---|---|---|---|
| **Household income** | | | | |
| 500,001-1,000,000* | -0.001 | 0.000 | -12.850 | 0.000 |
| 1,000,001-280,600,000* | -0.006 | 0.000 | -122.670 | 0.000 |
| **Age of the child** | 0.010 | 0.000 | 310.770 | 0.000 |
| **Sex of the child** | | | | |
| Male Child* | 0.005 | 0.000 | 46.510 | 0.000 |
| **Household size** | | | | |
| 4-6* | 0.006 | 0.000 | 51.390 | 0.000 |
| 7-25* | 0.009 | 0.000 | 155.590 | 0.000 |
| **Fathers education level** | | | | |
| No formal education* | 0.053 | 0.001 | 67.040 | 0.000 |
| Primary education* | 0.014 | 0.000 | 58.950 | 0.000 |
| **Mothers Education Level** | | | | |
| No formal education * | 0.003 | 0.000 | 6.750 | 0.000 |
| Primary education * | 0.001 | 0.000 | 3.770 | 0.000 |
| **Biological father dead** | | | | |
| Biological father dead * | 0.008 | 0.000 | 52.070 | 0.000 |
| **Region** | | | | |
| Northern* | -0.023 | 0.000 | -219.840 | 0.000 |
| Eastern* | -0.024 | 0.000 | -216.580 | 0.000 |
| Western* | -0.025 | 0.000 | -234.490 | 0.000 |
| **Residence** | | | | |
| Rural* | 0.001 | 0.000 | 4.960 | 0.000 |
| **Sector of employment** | | | | |
| Agriculture * | 0.067 | 0.000 | 331.790 | 0.000 |
| Industry* | 0.070 | 0.00032 | 221.380 | 0.000 |
| **Distance to source of water** | | | | |
| 0-3 kilometres * | -0.005 | 0.000 | -29.640 | 0.000 |
| 3-5 kilometres * | -0.009 | 0.000 | -32.070 | 0.000 |
| 5-8 kilometres * | -0.009 | 0.001 | -11.600 | 0.000 |
| **Distance to source of firewood** | | | | |
| 3-5kilometres * | -0.004 | 0.000 | -21.420 | 0.000 |
| 5-8kilometres * | 0.007 | 0.001 | 12.490 | 0.000 |
| Above 8 kilometres * | 0.012 | 0.001 | 17.750 | 0.000 |

**(*) dy/dx is for discrete change of dummy variable from 0 to 1**

**From table 4.11, the following observations were made;**

**Individual child characteristics**

**Age of the child:** one unit (year) increase in age of a child increases the probability of a child working by 0.010and is statistically significant at 1% level with a p-value of 0.000. This shows a positive and significant relationship between age and child labor. As child grows old, it increases the parents' preference to send them to work since these children can with stand harsh, dangerous conditions and can fetch high payments in the labor market to support their siblings. This agrees with the findings of (Carraso2017, Sakyi- et al., 2022), in their findings assert that age of the child was positive and significant in influencing child labor. Children above 12years were more interested in working in order to earn a living as compared to those below 12years. Other studies in support of the age variable include (Adisa, 2016; Carraso, 2017; Nana & Ayifah, 2018;UNICEF, 2020; Sherkhan, 2021), in their respective studies found out that age and child labor were positively and significantly related.

**Sex of the child:** Being a male increase the probability of engaging in child labor by 0.005 and this statistically significant at 1% level with a p-value of 0.000. This therefore shows a positive and statistically significant relationship being a male and child labor. Parents tend to shield female children from manipulation and exploitation as compared to boys. Also most activities that are hazardous and constitutes child labor such as grazing, working on construction sites, mining, stone quarrying, sand mining, fishing, spraying herbicides, brewing, charcoal burning, brick laying are seen to be best done by boys because of their biological masculinity. This makes male children more vulnerable. It should be further noted that most organizations, policy makers are bent to girl child protection leaving boys to be mentored and protected by nature which makes them prey to

labor market (Ministry of education and sports, 2013). This agrees with the findings of (Björkman-nyqvist, 2013; Satriawan & Ghifari, 2018; Muhumuza, 2012; Nana & Ayifah, 2018; Carrasco, 2017) who assert that sex of the child plays a big role on whether a child should work that is being a male child increased the chances of participating in child labor. However (Maxime, 2021) the findings show a divergent argument that girls work more through their life, the African tradition train them to make good future wives. This makes them more vulnerable to child labor than boys.

**Biological status of the child:** having lost a biological father increases the probability of a child engaging in child labor by 0.008 and it is statistically significant at 1% level. In Uganda fathers' are bread winners and provide direction to a household. Quite a number of children who have lost their father are forced to work to fend for their families, to take care of their siblings and to fill the vacuum left behind by their dead father. Also fathers carry the burden of providing for their families so in their absence mothers have no option but to send their children to work. Besides orphaned children lack the basic needs to cater for them while at school and those who take up the role of caretaking manipulate them to work while their biological children attend school. This means that children whose fathers are still alive have less chances of working and are more likely to enroll in school. This is based on the value biological parents attach to their children and the decision and provision roles played by fathers. The study findings collaborate with (Maxime, 2021) that there is a negative and significant relationship of being a biological child and child labor compared to adopted children. Thus having a relationship with household head irrespective of their gender reduces the probability of participating in child labor as compared to a relative which results into increasing the probability of children whose fathers are dead to engage in child labor.

**Household characteristics**

**Household size:**

Belonging to a household with more than 4-6 and 7-25 members increases the probability of a child working by 0.006 and 0.009 respectively. This is positive and significant at 1% level. The bigger the household the more the strain on the available resources and the more likely parents send older siblings to work in farms, construction sites and to work as housemaids in order to supplement household resources. This is done to cater for the increasing demands of an increased number of household members. This is because the resources are stretched and in a bid to meet the needs of the growing number of children the older ones are forced to look for work to supplement the parents' income (Rotondi & Billari, 2022; Nana & Ayifah, 2018;Dinku, 2017; Adisa, 2016;Bandara et-al, 2014; Edmonds, 2016; (Abebe & Fikre, 2021). Their study relates to (Satriawan & Ghifari, 2018)who found a positive a significant relationship between the number of young siblings in the household and child labor. However, Maxime, (2021) based his argument on evidence that large families enjoy economies of scale. Due to their numbers it is easy for them to accomplish tasks in a short period giving such households advantage of survival reducing the probability of children in such households to be engaged in child labor. In Uganda the dependency rates where majority of the population is below 15years, makes it a fertile ground for child participation in the labor market.

**Household income:**

Being a child from a household whose monthly income is in the category of 500,001-1,000,000 and 1,000,001-280,600,000 reduces the probability of the child working by -0.001 and -0.006 respectively and is negative and significant at 1%level. Thus as household incomes improve;

parents are less likely to send their children to participate in labor market. In Ugandan context an increase in household income implies an increase in standards of living by the household. The household can now afford basic needs, can send children to school and can afford to have alternative to activities that would have required employment of children(Cummings, 2016). The output from the model is in agreement with the theoretical underpinning that poverty is the main determinant of child labor as stipulated by (Basu, 2008) that is as parents income increase, they find no reason to send their children to work.

**Fathers level of education:**

The father of the child having either no education or primary education increases the probability of the child participation in the labor market by 0.053 and 0.014 respectively. This emanates from the lack of understanding of the benefits of education as well as the type of work, sector where they are employed. Other factors held constant the less education one has the less the earnings and the more likely he will derive livelihood from informal sector and agriculture which are breeding grounds of child work. By implication, children whose fathers have secondary education and above are less likely to participate in child labor. This is positive and significant at 1% level. Fathers education level influence their decision on whether to send children in the labor market that is households with fathers with secondary education and above are more likely to send their children to school than to work.(Shahzad et al., 2022;Bau et al., 2019;Abou, 2014)

**Mothers level of education**

Children from households have a mother with no education or primary education increase the probability of participating in the labor market by 0.003 and 0.001 respectively. This is positive

and significant at 1% level. Mothers provide the anchor a household needs. The less educated a mother is the less emanated she is and the less likely she is to influence a family decision as well as owning assets. In addition, less educated women are more likely to produce more children. These additional children come with additional needs and responsibilities which calls for siblings to drop out of school to look after them(Hoop et al., 2017).Women with secondary education and above understand the importance of education that is can adopt to better family planning methods, therefor can produce few children as well as influence household decision to take children to school than to work(*Ministry of Education and Sports ( MoES ) National Strategy for Girls ' Education ( NSGE ) in Uganda*, 2019).

**Sector of employment:**

Households' engagement in either agriculture or industrial sector increases the probability of the child working by 0.067 and 0.070 respectively. This is positive and significant at 1% level. Agriculture being a backbone of Uganda renders it economically central to most households. Majority of Ugandans derive their livelihood from agriculture, yet agriculture sector in Uganda remains undeveloped that is subsistence and even where the government has tried to put emphasis on commercialization, it remains dependent on nature, use of rudimental tools, farmers cannot afford fertilizes, improved seedlings, women and children remain trapped in as superintendents of the gardens. The study is consistent with the findings of (Ejiogu & Amanze, 2013) that basically agriculture is labor intensive and the amount of acreage determines how much output one gets. Even when there are good yields, post-harvest handling and management of the produce remains manual. This is a common practice with coffee, rice, tea, cotton and tobacco growing areas. This

continues to make children from poor households be made to fail to attend school as parents look up to them as cheap sources of labor(Wisborg et al, 2022; Study et al., 2020)

On the industrial sector, though industries can be small scale, medium and large scale industries; in Uganda small scale industries remain dominant in most household. Examples could include artisanal, fruit processing for juice, brick making(Njieassam, 2023). These small scale industries are labor intensive with fewer returns(Schwartz, 2020). This makes it hard for the owners to employ advanced machinery to improve production in terms of quality and quantity thus child labor becomes the opportunity cost since it is cheaper and readily available (Sovacool, 2021).

Thus children are looked at as close substitutes in the agricultural and industrial sector to adult labor that is when a parent is sick, the use the labor of children to perform tasks they were to perform that day such as grazing, drying cereals, accompanying workers to the garden, covering bricks in rainy seasons. This argument corroborates with the theoretical underpinning of this study of substitution axiom by (Basu, 1998), which states that children and adults are alternatives to each other, most importantly is that this assumption emphasizes that adult labor can be substituted by child labor.

**Community characteristics:**

**Residence:**

Being a child who comes from a rural household increases the probability of the child working by 0.001. This is positive and significant at 1% level. Most rural households are economically poor. This means that children from rural households are at a high risk of engaging in labor market because of the activities such as agriculture and the distance to schools especially the hard to reach areas where schools are far

away(State & Adegbenro, 2017). Empirical evidence from Abou, (2014), shows that the difference in both rural and urban setting of various regions can determine whether a child goes to work or not. The urban dwelling offer a more robust environment to access and utilize social amenities like schools, however the increased rural-urban migration can be detrimental due to its associated problems like unemployment that results into urban poverty that have a negative impact on schooling. In support of this assertion, Maxime, (2021), argues that children in rural areas tend to join labor force early compared to children born in urban setting.

**Region of Location:**

Being a child from North, East or west reduces the probability of working by -0.023, -0.024 and -0.025 respectively. This is negative and significant at 1% level. This could be attributed to the effect of rural urban migration where most people move the central region being a home of Kampala the capital city of Uganda and in search for better employment opportunities. Due to the cost of living in terms of rent and feeding, they end up in slums and others end up sending their children to work as housemaids, working on building construction sites, working in abattoirs, landing sites, factories, garbage collection and the worst case scenario being sent into child prostitution for female children, child trafficking asking for alms on streets in order to support the meager income of a given household. The above assertion agrees with Abou (2014) findings that increased rural-urban migration can be detrimental due to its associated problems like unemployment that results into urban poverty that have a negative impact on schooling.

**Source of drinking water:**

Having a water source within the radius of 0-3kms, 3-5kms and 5-8 kms reduces the probability of a child working by -0.005, -0.009, -0.009 respectively. This is negative and significant at 1%

level. Thus households with water sources in a distance of 8kms and above increases chances of a child working due time wasted in moving from home to the water source. Most households especially in Kisoro, Isingiro district fetch water from a distance on major rivers and lakes. Children spend much of their time walking to fetch water from rivers, streams, wells and lakes than going to school and can only go to school in rainy seasons. The findings agree with the report(T. H. E. Republic, 2020) that most children either fail to enroll or drop out of school due to the time wasted travelling to fetch water.

**Source of firewood:**

Having firewood source within the radius of 3-5kms reduces the probability of a child working by -0.004 and this is negative and significant at 1% level while a child being from households with a distance of 5-8kms increase the probability of children working by 0.007 and this is positive and significant at 1% level while household within a radius of 8kms and above increased the probability of working by 0.012 and statistically significant at 1% level. By implication the long the distance to fetch firewood the more likely a child will participate in child labor than attending school. This is common in most rural areas where households entirely depend on fuel wood as the source of energy. Households that rely on firewood as the only source of energy, children trek kilometers to fetch firewood in gazetted government forests. Such families would rather have their children at home than send them to school(Webbink et al, 2010). In addition to the above, most families in Uganda capitalize on fuel wood as their energy source; resulting into not only environmental degradation but have negatively impacted the attendance of school by children (Marieke, 2014; Abigaba et-al, 2016, Alinaitwe, 2021).

# CHAPTER FIVE:

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## 5.0 Summary of Results

The key cause of child engagement in child work in Uganda is the individual, household and community attributes where these children come from to be specific the income levels of the households. This is exhibited by the ever increasing cost of living in terms of food, school fees, transport and cost of basic essential requirements. This has widened the income gap causing parents to engage their children in hazardous work such as stone quarrying, sand mining, and gold mining, landing sites, bricklaying, charcoal burning, spraying herbicides, child trafficking and prostitution to supplement the meager income of these households.

Biological relationship with the father who is alive is essential determinant of whether a child should participate in labor market or not. Children whose biological father is dead are at a disadvantage since they bear the load of engaging in work as the only alternative for survival.

Number of members in a given household increases the probability of a child engaging in work with male children being more affected. Culturally male children are assumed to be more energetic, can with stand long working hours and can work in hazardous environments as compared to females.

Distance to water and fire wood source results showed a positive and significant effect on child labor. This can be attributed to the time spent by children walking to and from the household and the source. This reduces the probability of the child going to school.

Rural households especially those in the hard to reach areas remain isolated in terms of accessibility to schools irrespective of the government effort to offer free education. This constrains the ability of children to attend school but opt to work.

Being located in the North, East or West negatively and significantly affects child labor that is it reduces the probability of working as compared to when ones household is located in the central. This is because of the effect of rural urban migration to the city Centre especially for job opportunities and related problems of failing to find what to do as well as lack of accommodation.

Therefore being a male child whose parents have primary education and below, father is dead, come from the rural area, fetches fire wood from a distance of 5kilometres and above, parents who are employed in agricultural or industrial sector increases the probability of that child working. While being a child from households with incomes above 500,000ugx, come from the North, East or western region, fetches water from a radius of 0-8kilometres,fetches firewood within a radius of 0-5 kilometers; reduces the probability of a child engaging in the labor market.

### 5.1 Conclusions

From the study, it is evident that poor households provide a safe haven for child labor. The need to supplement meager household income is central in child labor phenomenon. In gender, age, education level of the household head, distance to either water or fire wood, residence, sector of employment; household income remain eminent in all the significant variables that determine child labor in Uganda.

The probability that male children can work is high compared to female child, this is due to the socio-cultural set up of Uganda where in case of eventuality relatives can easily adopt and take up girls to boys, and families are more sensitive about girl child as compared to boy child. This has been worsened by the gender equality movement where every NGOs, children programs target girls leaving boys at the mercy of nature.

The study also has put more emphasis on the importance of education especially the parents. From the results it can be observed that there is a positive and significant relationship between father or mother with primary education and below with child participation in the labor market. The more a parent is educated, the more likely he/she is able to attach value on educating children than sending them to work. Thus the higher the education level of the parent whether father or mother is, the lower will be the probability of engagement in child labor. The intuition of this result may be that parents who have attained a relatively higher level of education are more likely to have a better understanding of the potential benefits from education and appreciate the value of children mainly concentrating on their schooling, therefore less likely to allow their children engage in labor market activities.

Another fundamental area of concern is the sector of employment. In this case agriculture is seen as a major hub for child labor. This is corroborated with the regression results where rural residence results were positive and significant. This means that much needs to be done in agricultural sector to make it more productive if this vice of child labor is to be eliminated that putting in place policies that do not work or implemented. By implication policies to reduce child labor should be tailored to promote agriculture production and improving access to utilities, schools in rural areas to

encourage people to stay where they are than shifting to city centres. This is evident by the positive and significant results by the households located in the central region.

Equally statistically significant is the distance to the source of water and fire. These being essential to the wellbeing of most of Uganda's households, poor households that cannot afford piped water, electricity, resort to wells and rivers and natural forest reserves. This distance consumes time that affects children chances to attend school.

Therefore evidence from the findings above suggests that the following variables were positive and statistically significant; sex, age biological relationship, household size, parents' level of education, sector of employment, residence and distance to source of fire wood whereas region of household location, distance to water source, household income, were negative and statistically significant at 5% level.

### 5.2 Policy recommendations

Based on the study findings on the determinants of child labor in Uganda, the researcher therefore suggests the following key policy recommendations;

On household incomes, empirical evidence suggests that the higher the income of a given household the lesser the probability of a child working; the government of Uganda should therefore improve on access to existing livelihood programs particularly targeting improving low-income household earnings. This will enable households to improve on their level of incomes. In addition to putting in place a favorable environment of accessing government interventions such as PDM funds by every household. These programs have been eroded by embezzlement, corruption that ranges from direct diversion of physical cash to giving priority to those already rich.

On the sector of employment evidence suggests that engaging in agricultural sector increases the probability of the child working; the government of Uganda should therefore step up policies aimed at enhancing agricultural sector productivity such as modernizing and commercializing of agriculture sector. Thus techniques like irrigation, post-harvest handling, agro processing and soil testing before planting of any crop to reduce on losses incurred by farmers should be made affordable by every household to improve on household income.

On Residence and region of location of the household; the government of Uganda should put emphasis on the utilities such as water and electricity to ensure their access to the hard to reach areas. Improve rural infrastructure and amenities to reduce rural urban migration. This would make it easier for rural and hard to reach households access quality education, clean water like piped water, clean energy like affordable solar energy and electricity through rural electrification that is not only limited to trading centres but also should be extended to the hard to reach areas of Uganda.

On household size, the government should enhance family planning services to control the number of children born. The fewer the children a household has, the more likely it is able to take care of them thereby reducing child labor problem. This should be intentional especially through enhancing sensitization campaigns, this means that it should not only be left to NGOs but the government should design strategies that aim at ensuring compliance.

On the education level of the parent, evidence shows that father or mother of the child having either no education or primary education increases the probability of the child participation in the labor market, this calla for investing in human capital development if Uganda is to take off. Therefore, the government of Uganda should ensure fair distribution of schools in hard to reach

areas to make learning easy for children from remote areas. Also the government should come in to regulate school administrators who even when education is supposed to be free, they continue to charge high school fees making education unaffordable for the poor. This will help to reduce the number of children who drop out to go and work or those who fail to enroll. This would increase enrolment and reduce dropout of the school. In addition, the government of Uganda should put in place incentives to keep children in school such as free lunch other than providing free education to hungry children who find dropping out a better option.

On distance to fire wood, evidence suggests that the longer the distance to the source of fire wood, the higher the probability of a child working. This is exhibited by the positive and significant coefficients in the study findings. Since most households in Uganda use firewood as their source of energy (UBOS 2019/2020), there is need by the government to enhance awareness of the population on measures to reduce environmental degradation through afforestation, reforestation, agroforestry, and preservation of the natural forests. Alternatively, government should promote household access to clean sources of energy such as solar energy, biogas and rural electrification.

On distance to the water source, empirical evidence suggests that the shorter the distance to the water source, the lower the probability of children engaging in child labor. The policy recommendation is that the government of Uganda should put in place measures to reduce distances covered to access clean water by drilling boreholes, facilitating poor households to construct water harvesting tanks and improving on existing wells.

### 5.3 Areas for further research

To advance understanding in this field, more research ought to be done to fill the gaps that remained after this study. Therefore, the study made the following recommendations;

On methodology future studies should put emphasis on primary data collection. This helps to reach out to respondents individually especially the child laborers. This would help to get the true story and enables the researcher to make accurate dimension of what actually takes place in child labor since in most cases secondary data is biased by the respondents especially the parents/ guardians.

More emphasis should be put on quality of data collected thus the study recommends use of mixed methods that is both qualitative and quantitative as this would help future researchers not only capture numbers but also the story behind these numbers. This would help the government and child agencies to get the right diagnosis for child labor problem.

Research should be conducted on the effects of child labor since most cases it is a cycle that is child labor may be a result of the consequences of child labor poorly handled.

## REFERENCES


Abebe, G., & Fikre, S. (2021). Individual , household , and community level factors of child labor in rural Ethiopia Individual , household , and community level factors of child labor in rural Ethiopia. *Cogent Social Sciences*, *7*(1). https://doi.org/10.1080/23311886.2021.1961402

Abigaba, G., Niyibizi, G., Turinayo, Y., & Nansereko, S. (2016). *Implications of fuel wood scarcity on livelihoods of rural communities of Nyarubuye Sub-County in Kisoro District , south western Uganda*. *17*(1), 43–50.

Abou, E. P. (2014). *A Re-examination of the Determinants of Child Labour in Côte d ' Ivoire* (Issue December).

Ahad, A., Chowdhury, M., Parry, Y. K., & Willis, E. (2021). *Urban Child Labor in Bangladesh : Determinants and Its Possible Impacts on Health and Education*.

Akresh, R. (2012). *Child Labor , Schooling , and Child Ability*. *February*.

Alinaitwe, G. (2021). *HOUSEHOLD ENERGY DEMAND IN UGANDA :*

*American Economic review; Vol.51, No.1(march; 1961)1-17*

Analysis, A. D. (2021). *The Relationship between Child Labour and Child Marriage : August.*

Andre, P., Delesalle, E., Andre, P., & Delesalle, E. (2019). *PAPERS*.

Ariyanti, I. (2016). *SOCIO ECONOMIC FACTORS AFFECTING THE CHILD LABOUR IN PALEMBANG CITY INDONESIA* (Vol. 21, Issue 2).

Balochistan, P., Sajid, G. M., & Ahmad, N. (2018). *Artech Journal of Art and Social Sciences ( AJASS ) Exploring the Determinants of Child Labor in Districts Quetta and*. *1*, 9–17.

Bandara, A., Dehejia, R., & Lavie-rouse, S. (2015). The Impact of Income and Non-Income Shocks on Child Labor : Evidence from a Panel Survey of Tanzania. *WORLD DEVELOPMENT*, *67*(March 2014), 218–237. https://doi.org/10.1016/j.worlddev.2014.10.019

Basu, K. (2008). *Discussion Papers in Economics Is Product Boycott a Good Idea for Controlling Child Labor ? May*.

Basu and Van (1998), *The Economics of Child labor, American Economic Association vol*. 88, No.3 (June 1998, pp 412-427

Bau, N., Rotemberg, M., & Steinberg, B. M. (2019). *Brain vs . Brawn : Child Labor , Human Capital Investment , and the Role of Dynamic Complementarities*.

Bérenger, V., Verdier-chouchane, A., Kayizzi-mugerwa, S., & John, C. (2015). *Child Labour and Schooling in South Sudan and Sudan : Is There a Gender Preference ? 230*.

Beuermann, D. W. (2015). *Information and Communications Technology , Agricultural Profitability and Child Labor in Rural Peru*. *19*(4), 988–1005. https://doi.org/10.1111/rode.12180

Björkman-nyqvist, M. (2013). Income shocks and gender gaps in education : Evidence from Uganda ☆☆. *Journal of Development Economics*, *105*, 237–253. https://doi.org/10.1016/j.jdeveco.2013.07.013

Blessing, I. (2013). *CHILD LABOUR : IMPACT ON ACADEMIC PERFORMANCE AND SOCIAL IMPLICATION : A CASE OF NORTHEAST UGANDA*. *3*(1), 55–60.

Bosco, T. J., Moses, A., & David, K. J. (2023). *The effect of participatory project design on project success in government funded project in Uganda : A case study of parish development in Kabale District*. *March*. https://doi.org/10.5897/AJBM2022.9427

Bourdillon, M., & Crivello, G. (2014). *Introduction : children ' s work and current debates*. 1–18.

Brief, P., & Trafficking, C. (2020). *July 2020 Acknowledgements*. *July*.

Briefs, R. P. (n.d.). *Eliminating child labour in rural*.

*Child Labour Theories and Policies*. (2022). *20*(2).

Carrasco, 2017. Determinants of Child and Adolescent Labour in Chile. Turin School of Development Working Paper No. 9. International Training Centre of the ILO, Turin, Italy

Colmer, J., No, W. P., & No, W. P. (2013). *Climate Variability , Child Labour and Schooling : Evidence on the Intensive and Extensive Margin Centre for Climate Change Economics and Policy*. *148*.

Community, E. A. (2016). *EAST AFRICAN COMMUNITY EAC CHILD POLICY ( 2016 )*.

Coon, M. (2016). Remittances and child labor in Bolivia. *IZA Journal of Migration*. https://doi.org/10.1186/s40176-016-0050-6

Cummings, P. M. (2016). *Child Labor and Household Composition : Determinants of Child Labor in Mexico*. *29*(3), 29–54.

David Thomas (2022), Businesses can help end child labour scourge, new African magazine

Decentwork, R. (n.d.). *Technical Note N° 1*.

Dinku, Y., Fielding, D., & Genç, M. (2017). *University of Otago Health Shocks and Child Time Allocation Decisions by Households : Evidence from Ethiopia Health Shocks and Child Time Allocation Decisions by Households : Evidence from Ethiopia*. *2293*(1705).

Disparities, U. (2015). *50% 25%*.

Economics, A., & Library, D. (n.d.). *globe due to the work of AgEcon Search . DETERMINANTS OF HOUSEHOLD ' S CHOICE OF COOKING ENERGY IN UGANDA*.

Edmonds, E. V. (2016). *Economic Growth and Child Labor in Low Income Economies Economic Growth and Child Labor in Low Income Economies* (Issue 3).

Edouard, P., & Abou, P. E. (2016). *Does the Unavailability of Educational Resources in Schools Determine Child Labor in Sub-Saharan Africa ? A Micro-econometric Analysis from Côte d ' Ivoire International Journal of Economics & Does the Unavailability of Educational Resources in Schools Determine Child Labor in Sub-Saharan Africa ? A Micro-econometric Analysis from C ô te d ' ivoire*. https://doi.org/10.4172/2162-6359.1000326

Effect, T., Evidence, L. C., & Ebeke, C. H. (2010). *Volume 30 , Issue 1*. *30*(1), 351–364.

Ejiogu, A. O., & Amanze, P. C. (2013). *SOCIO-ECONOMIC ANALYSIS OF FACTORS ASSOCIATED WITH CHILD LABOUR USE AMONG CASSAVA FARMERS IN IMO STATE*. *11*(1), 1–18.

Emerson, P. M., Souza, A. P., & Emerson, P. M. (2002). *I S THERE A C HILD L ABOR T RAP ? I NTER- G ENERATIONAL P ERSISTENCE OF C HILD L ABOR IN B RAZIL by DEPARTMENT OF ECONOMICS Is There a Child Labor Trap ? Inter-Generational Persistence of Child Labor in Brazil*. *02*.

Ethelberg, S. N. N. (2015). *Family planning and population control in developing countries : Ethical and sociocultural dilemmas* . *11*(1).

Fahlevi, M. (2020). *Economic Analysis of Child Labor Based Households*. *3*(1), 21–32.

Fatima, A. (2013). *ECONOMICS OF CHILD LABOUR Thesis submitted to the University of Nottingham*. *March*.

Fernando, C., Lazo, L. J., Gabriela, K., Bravo, L. E. R., Pac, U., & Salaverry, A. (2020). *Predicting child labor in Peru : A comparison of logistic regression and neural networks techniques*. 69–79.

Fors, H. C. (2012). *CHILD LABOUR : A REVIEW OF RECENT THEORY AND EVIDENCE WITH POLICY IMPLICATIONS*. *26*(4), 570–593. https://doi.org/10.1111/j.1467-6419.2010.00663.x *Forum : Issue : Sustainable Development Committee Improving agricultural methods to reduce forced child labour Student Officer : Claire Chung , Jagat Sachdeva , Daria Zakharova Position : Chair & Deputy Chairs Introduction Definition of*

*Key Terms*. (2021). *November*.

Gebru, B., & Elofsson, K. (2023). *The role of forest status in households ' fuel choice in Uganda*. *173*(December 2022).

Guler, S., & Gary, G. (2015). The Child Labor Problem in Turkish Agriculture : What Can We Do ? *Social Indicators Research*. https://doi.org/10.1007/s11205-015-0999-1

Hallaq, S., & Khalifah, A. (2022). *Working Paper No . 1007*. *1007*.

Hoop, D., & Furio, C. (2012). *Does promoting school attendance reduce child labour ? Evidence from Burkina Faso ' s BRIGHT project Does Promoting School Attendance Reduce Child Labour ?*

Hoop, D., Furio, C., & Papers, I. Z. A. D. (2017). *Women ' s Economic Capacity and Children ' s Human Capital Accumulation Women ' s Economic Capacity and Children ' s Human Capital Accumulation Jacobus de Hoop*. *10501*.

Ilibotti, F. A. Z. (1939). *The Macroeconomics of Child Labor Regulation*.

Impact, T. H. E. S. (2021). *UNICEF UPDATE ON THE SOCIOECONOMIC IMPACT OF COVID-19 ON CHILDREN WELL-BEING UNDER THREAT*. *1*, 1–12.

*Income and child labor : evidence from agricultural households in Ethiopia By ABIDEMI TOYOSI ADISA Submitted in partial fulfilment of the requirements for the degree of MSc Agricultural Economics in the Department of Agricultural Economics , Extension and Rural Development Faculty of Natural and Agricultural Sciences University of Pretoria South Africa July 2016*. (2016). *July*.

Interventions, C. (2021). *Addressing Child Labour*. *June*.

Introduction, I. (2011). *Is Child Labor Harmful ? The Impact of Working Earlier in Life on Adult Earnings*. *1989*.

Joseline, A., Hilary, M., & R, M. D. (2022). *Community Participation and Water Projects Sustainability in Rwamwanja Settlement , Kamwenge District , Uganda*. *2*, 36–49. https://doi.org/10.22161/ijeel

Khan, R. S., Jan, S. A., Afridi, J. R., & Farhan, M. (2021). *Impact of " Food for Education Program " on Child Labour incidencein Tribal Districts of Khyber Pakhtunkhwa , Pakistan*. *20*(6), 691–707.

Khanam, R. (2004). *Child Labour and School Attendance : Evidence from Bangladesh Child Labour and School Attendance : Evidence from Bangladesh . 2003*.

Labour, C., Bhalotra, A. S., Social, O., & Papers, E. W. (2003). *Child Labour in Africa Sonia Bhalotra 4 OECD SOCIAL, EMPLOYMENT AND MIGRATION WORKING PAPERS*.

Lal, B. S. (2019). *Child Labour in India : Causes and Consequences*. *May*. https://doi.org/10.21275/ART20198458

Lambon-quayefio, M. P., & Owoo, N. S. (2021). *Investigating the long-term effects of child labor on household poverty and food insecurity in*. 561–587. https://doi.org/10.1017/dem.2020.29

Lichand, G. (2010). *Decomposing the Effects of CCTs on Entrepreneurship*. *October*.

Maxime, S. (2021). *Asian Journal of Economic Modelling DETERMINANTS OF CHILD LABOUR IN CAMEROON : A BIVARIATE PROBIT MODEL ANALYSIS Keyword s*. *9*(2), 105–121. https://doi.org/10.18488/journal.8.2021.92.105.121

*Ministry of Education and Sports ( MoES ) National Strategy for Girls ' Education ( NSGE ) in Uganda*. (2019).

*Moana Silva Simas The social and environmental dimensions of global value chains Moana Silva Simas The social and environmental dimensions of global value chains*. (2018).

Moyi, P. (2011). *Child labor and school attendance in Kenya*. *6*(January), 26–35.

Mpyangu, C. M., Ochen, E. A., Onyango, E. O., Of, L., & Iv, F. (2014). *Out of school children study in uganda*. *March*.

Mwebaze, T. (2007). *Extent and Determinants of Child Labour in Uganda* .

Nana, R., & Ayifah, Y. (2018). *Essays on Child Labour and Schooling in Ghana in the School of Economics*. *April*.

Njieassam, E. (2023). *Child Labour in Artisanal and Small-Scale Gold Mines in Uganda : Are Legal Protections Adequate ? 194*, 45–57. https://doi.org/10.1017/S0021855322000298

*No Title*. (2017). *August*.

Of, M., & Government, L. (2021a). *Implementation Guidelines for PARISH DEVELOPMENT MODEL*. *June*.

Of, M., & Government, L. (2021b). *The Parish Development Model*. *July*.

Paper, W. (2005). *The influence of market wages and parental history on child labour and schooling in Egypt IZA DP No . 1771 The Influence of Market Wages and Parental History on Child Labour and Schooling in Egypt Jackline Wahba*. *1771*.

Paper, W. (2011). *How to deal with covert child labour , and give children an effective education , in a poor developing country and Give Children an Effective Education , in a Poor Developing Country*.

Paper, W. (2012). *Market Access and Child Labour: Survey Evidence from Rural Uganda*.

Paper, W. (2014). *Cash Transfers and Child Labor*. *March*.

Papers, I. Z. A. D. (2021). *Household Preferences and Child Labor in Rural Household Preferences and Child Labor in Rural Ethiopia*. *14062*.

Parikh, A., & Sadoulet, E. (2018). *The Effect of Parents ' Occupation on Child Labor and School Attendance in Brazil*. *February*.

Peprah, J. A., Oteng, C., & Sebu, J. (2020). *Mobile Money , Output and Welfare Among Smallholder Farmers in Ghana*. https://doi.org/10.1177/2158244020931114

Pereznieto, P. (2011). *Situation analysis of children and poverty in Uganda : Voices of children*. *September*.

Personal, M., & Archive, R. (2010). *Munich Personal RePEc Archive Labour Market Reform and Incidence of Child Labour in a Developing Economy*. *19667*.

Planning, F. (2017). *Population Matters*.

Report, C. L. (2013). *THE NATIONAL LABOUR FORCE AND CHILD ACTIVITIES SURVEY 2011 / 12*. *July*.

Rowntree,B.S,(1901). Poverty; Astudy of Townlife: Macmillan London PP. 119-20

*REPUBLIC OF UGANDA NATIONAL ACTION PLAN FOR PREVENTION OF TRAFFICKING IN*. (2024). *July 2020*.

Republic, T. (2021). *TECHNOLOGY ACTION PLAN REPORT - MITIGATION*. *September*.

Republic, T. H. E. (2020). *Piped Water Supply in Uganda : How can it be affordable for all ? April 2016*, 1–4.

Republic, T. H. E., & Health, M. O. F. (2019). *SITUATION ANALYSIS OF CHILDREN IN UGANDA - 2019*.

Resources, W., & Series, P. (1994). *Uganda Water Resources Profile Overview*. 1–10.

Rotondi, V., & Billari, F. (2017). *Mobile Money and School Participation : Evidence from Low Income Countries ⁎*. 1–21.

Rotondi, V., & Billari, F. C. (2022). Mobile Money and School Participation : Evidence from Africa. *Population Research and Policy Review*, *41*(1), 343–362. https://doi.org/10.1007/s11113-021-09641-y

Sakyi-, C., Green, C. J., & Ahmad, A. H. (2022). *Investigating the well- - being implications of mobile money access and usage from a multidimensional perspective*. *November 2021*, 985–1009. https://doi.org/10.1111/rode.12848

Saqib, S. E., Muhammad, S., & Khan, I. (2022). *Factors Determining Child Labor : Empirical Evidence from Khyber Pakhtunkhwa , Pakistan*. *6*(1), 123–143.

Sassen, M., Sheil, D., & Giller, K. E. (2015). Forest Ecology and Management Fuelwood collection and its impacts on a protected tropical mountain forest in Uganda. *FOREST ECOLOGY AND MANAGEMENT*. https://doi.org/10.1016/j.foreco.2015.06.037

Satriawan, E., & Ghifari, A. T. (2018). *How does parental income affect child labor supply? evidence from the indonesia family life survey*. *February*.

Schmidpeter, B., & Schmidpeter, B. (2020). *The Long-Term Labor Market Effects of Parental Unemployment The Long-Term Labor Market Effects*.

Schwartz, F. W. (2020). *A Review of Health Issues Related to Child Labor and Violence Within Artisanal and Small-Scale Mining GeoHealth*. https://doi.org/10.1029/2020GH000326

Segumba, S. I., Submitted, A. D., Partial, I. N., Of, F., For, R., Degree, T. H. E., Master, O. F., Education, O. F., Study, P., & Open, A. T. (n.d.). *FACTORS LEADING TO PROBLEMS OF DROP OUT IN PRIMARY SCHOOL PUPILS IN TEMEKE DISTRICT*.

Shahzad, N., Nawaz, S., Rukhsana, H., & Akhtar, S. (2022). *PERCEPTION AND SOCIO ECONOMIC CONDITIONS OF CHILD LAHOUR IN FAISALABAD DISTRICT*. *04*, 15–30. https://doi.org/10.17605/OSF.IO/8BCA9

Shilongo, A. N. (2021). *A MULTINOMIAL MODELLING OF THE DETERMINANTS OF CHILD LABOUR IN*. *April*.

Sovacool, B. K. (2021). The Extractive Industries and Society When subterranean slavery supports sustainability transitions ? power , patriarchy , and child labor in artisanal Congolese cobalt mining. *The Extractive Industries and Society*, *8*(1), 271–293. https://doi.org/10.1016/j.exis.2020.11.018

Staneva, A., Usman, M. A., & Carmignani, F. (2021). *Child development impact of water scarcity : Evidence from Ethiopia*. *August*.

State, O., & Adegbenro, C. A. (2017). *Predictors of Child Labour Among In-School Adolescents in a Rural Local Government Area in*. *13*(23), 193–205. https://doi.org/10.19044/esj.2017.v13n23p193

Studies, A. (2022). *The Relationship of Child Labor and Globalization in the Philippines*. 222–231. https://doi.org/10.32996/jefas

Study, A. C., Select, O. F., & Industry, S. (2020). *Child labour in agri – business: April*.

Summary, E. (2020). *Child labour*.

Thesis, M. (2015). *Economic Shocks and Child Labour Empirical Evidence from Uganda*.

Thévenon, O., & Edmonds, E. (n.d.). *Child labour : Causes , consequences and policies to tackle it*. *235*.

Van, P. H. (2009). *The Economics of Child Labor*. *88*(3), 412–427.

Webbink, E., Smits, J., & Jong, E. De. (2013). *Hidden child labour : determinants of housework and family work of children in 13 developing countries*. *31*(0).

Wibowo, W., & Airlangga, U. (2020). *Determinants of Regional Household Final Consumption Expenditure in Indonesia*. *13*(1), 332–344.

Wisborg, P., Senbeta, F., Alem, H., Gemechu, T., & Lowe, B. (2022). *International Journal of Educational Development Coffee , child labour , and education : Examining a triple social – ecological trade-off in an Afromontane forest landscape*. *95*(October). https://doi.org/10.1016/j.ijedudev.2022.102681

Yinusa, D. O. (2006). *Determinants of Child Labour and Schooling in Botswana : Evidence from 2005 / 2006 Labour Force Survey*. *1993*, 15–33.