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# Analysis Of Socio-Economic Determinants of Child Labour In North Eastern Nigeria

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## Abstract

This study examines major socio-economic determinants of child labour in North-Eastern Nigeria. The study employs multistage sampling techniques to obtain required data from selected local government areas in three states of North Eastern Nigeria, namely, Adamawa, Bauchi, and Yobe States. Structured questionnaires were administered to 810 children and their household heads in three wards of each local government area selected. The data obtained was analyzed using the Tobit Model. The result shows that socio-economic determinants of child labour comprise children's age, children's gender, children's relationship with household head, household head's education, household head's occupation, and poverty, which is measured by household head's income, family size, access to clean piped water, and distance from school. Among them, some were found to be statistically significant at varying levels. Therefore, the study recommends necessary actions such as enlightenment on the effects of child labour, severe punishment of those found involved in child labour related activities, and the need for the government to make adequate provision for basic infrastructure.

**Keywords**: *Child labour; Socio-Economic Determinants; Tobit Modeling*

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## INTRODUCTION

According to the International Labour Organization (ILO, 2017), child labour affects 218 million children worldwide. The latest global estimate regarding child labour indicates that there are about one hundred and fifty-two million children (64 million girls and 88 million boys) engaged in child labour globally, accounting for almost one in ten of all children worldwide. Child labour is mostly perpetuated by rural households, because of their active participation in subsistence agriculture, and this, therefore, affects their participation in schooling activities, which results in poor performance (ILO, 2018).

UN (2020) reports that 72.1 million African children are involved in child labour including 31.5 million children engaged in hazardous work. The problem of child labour is severe in sub-Saharan Africa, where more than 40% of all children aged 5-14 labour for survival, or about 48 million children. With 65 million child labourers from Sub-Saharan Africa, these child labourers are prone to a variety of work-related health problems in the short run, and endanger their academic future in the long run (Ashagrie, 1998).

Child labour in Nigeria involves the employment of children under the age of 18 in a manner that restricts or prevents them from receiving basic education and development. Child labour is

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pervasive in every state of the country. Children typically, work for long hours and get little pay. Children are exposed to pesticides and chemical fertilizers in cocoa and tobacco fields because of archaic farming practices or because they are deployed as forced labour without protective gear. Additionally, street children work as porters and scavengers, and a growing number of them engage in begging (Magaji and Musa, 2015).

Considering regional characteristics, over 89% of children in the southern regions of Nigeria attend school, compared with 74% in the northern regions (Okolo, 2017). This shows that more children in the North are educationally disadvantaged compared to those in the South. Also, children from the Southern region had the highest participation in school, at 97% of the total sampled children in that region, while children from the Northern region had a relatively low participation rate, which represents 63% of the total sample in that region. Children that are engaged in work are not only more in the Northern region than in the South but also more schooling children participate in child-labour related activities in the North, (National Bureau of Statistics, 2010). The explanation for this may be a reflection of regional poverty differentials, which compel children to engage in economic activities to augment household income. There is a high incidence of children participating in economic activities and lower participation of children in school in the North-East than in other regions in Nigeria (Okpukpara, Paul, Fedelis, and Chukwuone, 2016). Child labour is capable of weakening human capital development and can result in the intergenerational transmission of child labour (Magaji, 2005). This calls for a need to look into the socio-economic determinants of child labour among households in North-Eastern Nigeria.

Child labour is a serious problem and a challenge for many developing countries. Many countries have enacted various laws and have taken serious initiatives to eradicate child labour but still, the problem is widespread throughout the world (Magaji, 2005). It is disturbing as the rate at which child labour is increasing in Sub-Saharan Africa in general and Nigeria and North-Eastern Nigeria in particular. The question of interest for this research is: what are the socio-economic determinants of child labour in North Eastern Nigeria? This constitutes our research question of interest. The primary objective of this study is to look into socio-economic determinants of child labour in North-Eastern Nigeria as measured by the hours of work a child is engaged in per day.

## LITERATURE REVIEW

### 2.1 Conceptual Review

Child labour is generally defined based on two factors: the type of work and the minimum appropriate age of the child. If a child is involved in an activity that is harmful to his physical and mental development, he is generally considered a child labourer (Magaji and Musa, 2015). That is any work that is mentally, physically, socially, or morally dangerous and harmful to children and interferes with their schooling activities by depriving them of the opportunity to attend school or requiring them to attempt to combine school attendance with excessively long and heavy work. The appropriate minimum age for each job depends on the effects of the work on the physical health and mental development of children (Magaji, 2005).

The International Labour Organization (ILO, 2017) defines child-labour as any work or task a child below the age of 18 years undertakes with the view of being rewarded in cash or in-kind or for any other reason at all, and which deprives him of good health, good education, and normal development. It is child labour because the children who do the labour are below the appropriate



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legally minimum working age (18 years) based on the International Labour Organization (ILO) minimum age convention of 1973, Number 138 (1). Suda (2001) sees child labour as work done by children on an economic basis; it is hazardously coupled with high exploitation tendencies. Several studies viewed child labour as the dangerous nature of jobs undertaken by children, which causes damage to their health. The International Labor Organization (ILO) considers child labor to be a form of exploitation because it is characterized by low wages and long hours of physical labor. This kind of labour tends to be exploitative as it is not offered maturely. But Aqil (2012) opines that not all jobs can harm or be considered exploitative as it depends on the particular work setting and the number of hours allocated as well as the working environment. This can, therefore, be absorbed by age, as seen in many societies where people cease to be children at different ages (Bhat, 2011 and Bhat, 2009).

However, child labour is considered a good task in Africa and Asia as children do have the ability to learn skills. To this end, Kielland and Tovo (2006) view child labour from a social perspective as the integration of children into different roles in society, as it guides them to their potential roles as they mature. Some studies view it from an income perspective, as it normally generates a current income (Cigno and Rosaati, 2005). But Udry (2006) considers child labour to be a sacrifice of future income in an exchange for current additional income earned during critical times by families. This income aspect normally distorts the child's ability in school prematurely; others decide to combine school with excessively long hours of heavy work. UNICEF (2011) also defines child-labour as the involvement of children between the ages of 5 and 11 in child-labour activities. He/she does at least one-hour economic activities or at least 28 hours of demotic work per week.

For Ashagrie (1993), a child is considered or classified as a labourer if he is economically active. That is, the child is gainfully employed or does work on a regular basis for which he or she is enumerated or which results in output destined for the market.

### 2.2 Theoretical Issues: Poverty Hypothesis Theory

The Poverty Hypothesis Theory explains child labour as an unavoidable effect of poverty (Amin, 1994; Khathar et al., 1998; Verlet, 1994) and argues that, in most less-developed countries where there are low levels of technological development, low wages, rising rates of unemployment, and declining household income, the labour participation of children who can contribute to the household income is essential for alleviating economic stress and meeting the consumption requirements of the household. In such a scenario, child-labour is an essential part of household survival strategies, such that during periods of economic recession, when parents are laid off, most children may be compelled to join the labour force in order to eke out a living for the family. Studies from less-developed regions of Asia, Latin America, and Africa have provided support for the poverty hypothesis by finding a strong correlation between economic stress and the occurrence of child labor.

### 2.3 Empirical Review

Ozoh & Chinecherem (2017) examine child labour and its determinants in the informal sector of Onitsha, Anambra State, Nigeria. The study uses an interview schedule as an instrument for data collection. A non-probability sampling technique was employed in which the sample was drawn



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using quota and purposive sampling techniques. Data collected was analysed using descriptive statistics (frequencies, percentages, and charts). The findings also show that factors such as illiteracy, parental ignorance, low level of awareness, high cost of living and low income also contribute to child labour in the study area. However, the study is conducted only in one state out of 36 states of Nigeria.

Perhaps in an attempt to cover more areas, Adeoye, Agbonlahor, Ashaolu, & Ugalahi (2017) examine the dimensions and causes of child labour among rural farm households in Nigeria. A multi-stage sampling technique was used to select 128 rural households for the survey, a total of 352 children were interviewed. A structured questionnaire was used to collect the data. Measures of central tendency dispersion and the Tobit regression model were used as analytical techniques. The study finds the age and educational level of household head, the distance of the home to school, the sex of the child, and the proximity of households to major roads are factors that cause child farm use. The limited number of the determinants affecting child labour casts doubt in the findings of the research.

There are researches with more coverages, for example, Jephtah, Panse, Abdullahi, & Jeremiah (2021) Examine the Contributing Factors of Child Labor in Nigeria and Implications on SDG 8: Evidence from the 2016 Multiple Indicator Cluster Survey. The study uses both primary and secondary data. The secondary data was extracted from the 2016 MICS. The sample was a two-stage sampling frame, with a nationally representative sample of 33,901 households from 2,239 enumeration areas. 61,109 questionnaires were administered to children aged 5–17 years using three age-specific thresholds. The study uses tabulations, involving frequencies and percentages, to analyze the data at the univariate level, while logistic regression analysis was employed to determine the contributing factors of child labour. The results show that child labour was still high at 42.5% in the country and the poorest households had more children involved in child labour. This however, limits the determinants of child labour to poverty.

Ojo, Olorunniyi, Oseghale, & Ojo (2018) carry out an assessment of child labour among farming households in selected local government areas of Niger State, Nigeria. The study uses primary data obtained from 103 farmers that were randomly selected from two local government areas using a structured questionnaire. The study uses descriptive statistics to describe the activities and hazards encountered by children involved in farm work in the study area. A binary logit regression model was used to analyze the factors affecting child labor use among rural agrarians in the study area. The results of the study show that 65.8% of the activities of children in the study area were a combination of schooling and farm work. The study further reveals that the age of the household head ($P<0.05$) and the number of male children ($P<0.01$) increased the probability of involving children in child labour. This research supposed to have controlled household income.

One more elaborate and wide coverage research, Oladokun, Dada, Agulanna, & Adenegan (2020) examine the determinants of child labour in farming households in Nigeria. The determinants of child labour were investigated using data on 765 households living in rural Nigeria and sourced from the General Household Survey (GHS 2015/2016). The data was disaggregated into the six geo-political zones in Nigeria (North-Central, North-West, North-East, South-East, South-South, and South-West). Information on socio-economic characteristics [age, household size, marital status, years of education, and membership of cooperative society] and use of child labour



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were extracted for analysis, which was done using descriptive statistics and logit regression at 0.05. The study concludes that child labour significantly influenced by the identified determinants. However, influence of each determinants is not clearly spelt out.

Ifeanyichukwu, Ike & Nnadozie (2018) examine the determinants of child labour use among rural household crop farmers in the Anambra State of Nigeria. They used a multistage random sampling technique to select one hundred (100) respondents for the study. They used a structured questionnaire to elicit information from the respondents. Percentage response was used to capture objectives i and iii. Objective ii was captured using Probit Model analysis. The result shows that the majority of the respondents were married, youthful, had a moderate household size, were educated, and highly experienced in farming. The relationship between the child and the household head, access to credit, and educational level were the determinants of child labor use in rural households. This supported the preceding reviews.

Similarly, Enebe, Enebe, Agunwa, Ossai, Ezeoke, Idokoand & Mbachu (2021) examine the prevalence and predictors of child labour among junior public secondary school students in Enugu, Nigeria. The study uses a descriptive cross-sectional study of 332 junior secondary students attending public schools in Enugu metropolis, Nigeria. The multistage sampling technique was used to select the six secondary schools and the students that participated in the study. The questionnaire contained information on the socio-demographic variables, the kind of work done by the respondents, and the number of working hours spent weekly. UNICEF's standard indicator for child labour was used to estimate the prevalence of child labour. Logistic regression was used to identify socioeconomic predictors of child labour. The findings show that the prevalence of overall child labour was 71.7%, while the domestic and economic child-labour prevalence was 52.1% and 34.0%, respectively.

There is a need for convenient research on the determinant of child labour in North Eastern Nigeria to cover more sample size, more variables and more study areas. These gaps should be filled by our research

## RESEARCH METHOD

The analysis of this study was based on data collected from the respondents who were subjected to statistical analysis. The Maximum Likelihood Method (MLM) of estimation was applied. The study used STATA 14 packages to carry out the estimation of the model. The study used a multi-stage sampling technique to obtain data from nine local government areas in three states of Adamawa, Bauchi, and Yobe. The study selected eight hundred and ten (810) respondents from nine local government areas of the mentioned states. Two hundred and seventy (270) from each state and ninety from each local government area.

### 3.1. Study Area

The **North East** (often hyphenated as the **North-East**) is one of the six geological zones in Nigeria, representing both the geographic and political region of the country's northeast. It comprises the six states of Adamawa, Bauchi, Borno, Gombe, Taraba, and Yobe.

Below is the map of Nigeria with North Eastern Nigeria colored and it keys (*see Figure 1)*.



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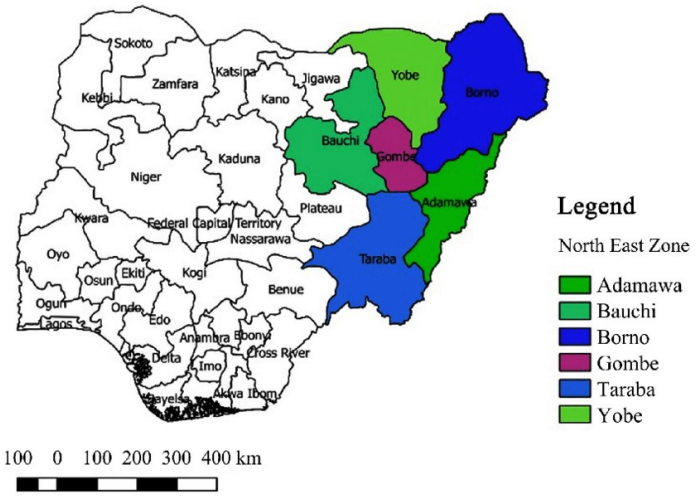


**Figure 1. Map of Nigeria**

Source: google map (2016)

Geographically, the North East is the largest geopolitical zone in the nation, covering nearly one-third of Nigeria's total area. In terms of the environment, the zone is primarily divided between the semi-desert Sahelian savanna and the tropical West Sudanian savanna ecoregions.

The region has a population of about 26 million people, or around 12% of the total population of the country. Maiduguri and Bauchi are the most populous cities in the North East, as well as the fifteenth and seventeenth most populous cities in Nigeria. Other large northeastern cities include (in order population Bauchi, Yola, Mubi, Gombe, Jimeta, Potiskum, Jalingo, Gashua, and Bama based on the 2016 projected population.

North-Eastern Nigeria has a land mass of two hundred and seventy-two, three hundred and ninety-five square kilometers (272,395 km2). According to the Population Census of 2006, it has a population of nineteen million, nine hundred and eighty-three thousand and seventy-five (19,983,875).

According to the 2006 population census, Adamawa has a population of four million, one hundred and seventy-seven thousand, eight hundred and twenty-eight (4,177,828); Bauchi has a population of four million, six hundred fifty-three thousand, sixty-six (4,653,066); Borno has a population of two million, three hundred sixty-three thousand and forty (2,363, 040); Taraba has a population of two million, two hundred ninety-four thousand.

### 3.2. Population and Sample

Based on the questionnaires administered, eight hundred and ten children and their household heads were sampled, and thirty household heads were sampled in each ward. The study used multistage sampling methods. The total population of household heads and their children is 270 for each state and 810 for the three states covered.

Data on the socioeconomic determinants of child labor were gathered from nine local government areas in the North-Eastern Nigerian states of Adamawa, Bauchi, and Yobe.This is because of the high prevalence rate of child labour and predisposing factors that could determine



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child labour in each state. Data is collected from three local government areas (all urban areas) of each state. In each state, one local government area was selected from among the three senatorial districts. The sampling criteria used was that thirty houses were counted as the interval between one household and the next household.

In Adamawa State, Numan Local Government Area was selected from Adamawa South Senatorial District, Mubi from Adamawa North Senatorial District, and Yola from Adamawa Central Senatorial District. In Bauchi State, Bauchi Local Government Area was selected from Bauchi South Senatorial District, Misau Local Government Area was selected from Bauchi Central Senatorial District, and Giade Local Government Area was selected from Bauchi North Senatorial District. Finally, in Yobe State, Damaturu Local Government Area was selected from Zone A Senatorial District, Potiskum Local Government Area was selected from Zone B Senatorial District, and finally, Gashua Local Government Area was selected from Zone C Senatorial District. In each local government area, ninety questionnaires were administered and received. In each local government area, three wards were identified with thirty households.

### 3.3. Model Specification

**Modeling the Socio-Economic Determinants of Child Labour in North-Eastern Nigeria**

The Theoretical Tobit Model was used to achieve the objective of this research and it is specified below:

$$\left.\begin{array}{ll} \gamma_i = Max(\gamma_{\check{\imath}}, 0) & \\ \gamma_{\check{\imath}} = \beta_1 + \beta_2 X_i + \mu_i & \check{\imath} = 1, 2, \ldots\ldots, N \\ \gamma_i = \gamma_{\check{\imath}} & if\ \gamma_{\check{\imath}} > 0 \\ \gamma_i = 0 & if\ \gamma_{\check{\imath}} \leq 0 \end{array}\right\}$$

Where $Y_i$ is the dependent variable that will be measured using a latent variable $Y_{\check{\imath}}$; $Y_{\check{\imath}}$ denotes the latent variable for positive values and censored values for otherwise; $\beta_s$ indicates vector of estimable parameters; $X_i$ is vector of explanatory variables; $\mu_i$ refers to normally and independently distributed error term with zero mean and constant variance $\sigma^2$; and N is the number of observations.

$$chdlb_i = Max\ (chdlb_i 0)$$

$$chdlb_i = \alpha + \beta_1 Agch + \beta_2 Gnch + \beta_3 Chrh + \beta_4 Eduh + \beta_5 Ocph + \beta_6 Inch + \beta_7 Fmz + \beta_8 Acpw + \beta_9 Ds + \mu_i$$

Where:

Chdlb = Child Working Hours = Hours of work per day

$\alpha$ = The Constant parameter of the equation

$\beta_s$ = The co-efficient of the independent variable

Agch = Age of the Child which is defined as the age at which a child is engaged in labour related work as in the research

Gnch = Gender of the Child which is defined as if the child is male or female.

Chrh = Child Relationship with Household Head which is defined as if the child is biological child or not.

Eduh = Education of the Household Head which is defined as if the house hold head is



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educated or not.

Ocph = Occupation of the Household Head which is defined as if the house hold head engages in formal, or informal occupation

Inch = Income of Household head which is defined by total amount money an house hold received daily

Fmz=Size of the family which is defined as the total number of members in an house hold

Acpw= Access to Clean Pipe borne Water which is defined as if the members of the community have access to clean pipe borne water

Ds = Distance of Schools from households in kilometres (km) which is defined as how far the distance children have to trek from home to their schools in kilometers.

Where $\mu$ = error term

**FINDINGS AND DISCUSSION**

Socio-Economic Determinants of Child Labour in North-Eastern Nigeria Based on Hours of Work is explained in Table 1.

**Table 1. Child Working Hours**

| | Children engage in work | | Children working 3Hrs to 5Hrs | | Children working 5Hrs and Above | |
|---|---|---|---|---|---|---|
| Variable | Coefficient | Marginal | Coefficient | Marginal | Coefficient | Marginal |
| Agch | 0.2337*** | 0.0248 | -0.4824*** | -0.0524 | 0.0372 | 0.0044 |
| | (0.0892) | | (0.1425) | | (0.0991) | |
| Gnch | 0.0959 | 0.0102 | -0.5589 | -0.0609 | -0.3726 | -0.0439 |
| | (0.2474) | | (0.3941) | | (0.2697) | |
| Chrh | -0.7639*** | -0.0787 | -0.6513 | -0.0725 | -0.4385 | -0.0512 |
| | (0.2675) | | (0.4420) | | (0.3017) | |
| Eduh | -0.4064 | -0.0431 | -0.2739 | -0.0298 | -0.0793 | -0.0093 |
| | (0.2770) | | (0.4544) | | (0.3028) | |
| Ocph | -1.3365*** | -0.1503 | -0.2597 | -0.0279 | -1.3494*** | -0.1634 |
| | (0.3926) | | (0.5426) | | (0.3998) | |
| Inch | -0.0015* | -0.0001 | -0.0031** | -0.0003 | -0.0014 | -0.0001 |
| | (0.0008) | | (0.0013) | | (0.0009) | |
| Fmz | -0.0152 | -0.0016 | -0.0549 | -0.0059 | -0.0149 | -0.0001 |
| | (0.0391) | | (0.0646) | | (0.0444) | |
| Acpw | 0.3611 | 0.0375 | 0.7525 | 0.0848 | -0.0523 | -0.0061 |
| | (0.3226) | | (0.5104) | | (0.3810) | |
| Ds | 0.0326*** | 0.0034 | 0.0236 | 0.0025 | 0.0210** | 0.0024 |
| | (0.0085) | | (0.0153) | | (0.0100) | |
| N | 810 | | 356 | | 454 | |

Notes: Robust standard errors are in parentheses, P values: significance *10%; **5%; ***1%.
Sources: Author's Computation Stat-Version 14, 2021

Table 1 revealed that the socioeconomic variables comprise age of the child, gender of the child, child relationship with household head, education of the household head, occupation of the household head, income of the household head, family size, access to clean pipe-born water and distance from school from home. Findings from the study show that the age of a child has a significant positive effect on the probability of children engaging in work, while it negatively affects



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the probability of children working 3 to 5 hours. The age of a child has no significant effect on the probability of children working 5 hours and above. An increase in the age of a child increases the probability of engaging in work by 2.3 per cent (marginal value = 0.0248) while holding other variables constant. An increase in the age of a child reduces the probability of working for 3 to 5 hours by 4.8 percent (marginal value = -0.0524) while holding other variables constant. An increase in the age of a child has the potential to increase the probability of children working for 5 hours and above by 0.3 per cent (marginal value = 0.004) while holding other variables constant. This implies that the older a child becomes, the more likely he will engage in child labour and work longer hours.

The gender of a child has no significant effect on the probability of children engaging in work; the hours of work per day, whether working 3 to 5 hours or working for 5 hours and above (that is, Prob. (t-statistic) is greater than 5 per cent in all cases). That is, being a male or female child does not significantly affect engaging in hours of work. Children's gender does not determine the participation of children in work.

The child's relationship with the head of the house has a significant negative effect on the probability of children engaging in work (that is, Prob. (t-statistic) is less than 0.05). The child's relationship with the head of the house has a significant effect on the hours of work per day, whether 3 to 5 hours or working 5 hours and above (that is, Prob. (t-statistic) is greater than 5 per cent in both cases). An increase in a child's relationship with the head of the house reduces the probability of children engaging in work by 76.39 per cent (marginal value = -0.0787) while holding other variables constant. This indicates that being a non-biological child increases the tendency of children to engage in work and spend more hours at work.

The age of the household head has no significant effect on children engaging in work, children working 3 to 5 hours or children working 5 hours and above (that is, the Prob. (t-statistic) is greater than 5 per cent in all three models). This result implies that the age of the household head has no contribution or effect in determining whether the children will engage in child labour and work longer hours per day.

Education of the household head has no significant effect on children engaging in work, children working 3 to 5 hours or children working 5 hours and above per day (that is, the Prob. (t-statistic) is greater than 5 per cent in all three models). This means that the education of the household head has an inverse relationship with the possibility of children engaging in child labour or working longer hours per day. This result implies that the education of the household head has no contribution or effect in determining whether the children will engage in child labour and work longer hours per day but possesses the potential to reduce the possibility of children engaging in work, working 3 to 5 hours or working 5 hours and above.

Occupation of the household head has a significant negative effect on children engaging in work and children working 5 hours and above per day (that is, the Prob. (t-statistic) is less than 5 per cent in both models). While the occupation of the household head has no significant effect on children working 3 to 5 hours per day (that is, Prob. (t-statistic) is greater than 5 per cent), the estimated result showed that the occupation of the household head decreases the probability of children engaging in work by 33.65 per cent (marginal value = -0.1503), while holding other variables constant. In the same vein, the occupation of the household head decreases the probability of children working 5 hours or more per day by 34.94 percent (marginal value = -0.1634), while holding other variables constant. On the contrary, the occupation of the household head possesses



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the potential to decrease the probability of children working 3 to 5 hours per day by 25.97 percent (marginal value = -0.1634), while holding other variables constant. These indicate that the more lucrative the occupation of the household head, the less likely that the children will engage in child labour let alone work longer hours per day.

Household head income has a negative significant effect on children working in all hours categories, such that a unit increase in household head income reduces the probability of children working by 0.43 percent in Gashua while other variables remain constant. Children engaging in work in Damaturu or Potiskum has a significant negative effect on children engaged in work in Gashua. While holding other variables constant, a unit increase in household head income reduces the probability of children working by 0.86 percent in Damaturu and 0.86 percent in Potiskum.Household head income has a significant negative effect on children engaged in work in Gashua but not in Damaturu or Potiskum. While holding other variables constant, a unit increase in household head income reduces the probability of children working by 0.48 percent in Gashua.

The size of the family has no significant effect on children engaging in work, children working 3 to 5 hours or children working 5 hours and above per day (that is, the Prob. (t-statistic) value is greater than 5 per cent in all three models). This means that family size has no significant contribution or effect on determining the probability of children engaging in child labour or working longer hours per day. The result shows that increasing the size of the family has the potential to reduce the probability of children engaging in work by 1.52 per cent (marginal value = -0.0016), while other variables are held constant. Also, increasing the size of the family by a unit has the potential to reduce the probability of children working 3 to 5 hours per day by 5.49 percent (marginal value = -0.0059), while other variables are held constant. Increasing the size of the family has the potential to reduce the probability of children working 5 hours and above per day by 1.49 per cent (marginal value = -0.0001), while other variables are held constant.

The distance of hospitals from households in kilometres has no significant effect on children engaging in work, children working 3 to 5 hours per day, or children working 5 hours and above per day (that is, the Prob. (t-statistic) value is greater than 10 per cent in all three models). The result shows that an increase in the distance of hospitals from households in kilometres has the potential to reduce the probability of children engaging in work by 0.69 per cent (marginal value = -0.0007), while other variables are held constant. Also, an increase in the distance of hospitals from households in kilometres has the potential to reduce the probability of children working 3 to 5 hours per day by 0.0289 (marginal value = -0.0031), while other variables are held constant. The increase in the distance of hospitals from households in kilometres has the potential to reduce the probability of children working 5 hours and above per day by 2.28 per cent (marginal value = -0.0026), while other variables are held constant.

**Model Specification Test**

The link test for the model specification test assumes that if a regression model is properly specified, the addition of any explanatory variable should be insignificant except by chance.



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**Table 2. *Model Specification Test for* Children's Working Hours**

| | Children engage in work | Children working 3Hrs and 5Hrs | Children working 5Hrs and Above |
|---|---|---|---|
| | Prob> \|t\| | Prob> \|t\| | Prob> \|t\| |
| *Link test* | | | |
| _hat | 0.000 | 0.0830 | 0.0000 |
| _hatsq | 0.5500 | 0.4060 | 0.1630 |

**Sources: Author's Computation, Stat-Version 14, 2021**

To avoid biases and inconsistency, the model specification test is run after the Tobit regression to see if there is any specification error in the model. From the result above, the predicted value (hat) for the model is expected to be significant, while the predictor for rebuilding the model should be insignificant. This indicates that the model is correctly specified given the insignificant value of the predictors in Table 2.

**CONCLUSION**

The research concludes that several factors are responsible for child labour in northeastern Nigeria, specifically, the age of the child, the gender of the child, and the nature of the relationship with the household head. Household factors such as the occupation of the household and the income of the household are responsible for child participation in labour. At the community level, access to clean water and the distance of the school from home also determine child engagement in labour. This study, therefore, concludes that the expected leisure time of children is mostly utilized in labour activities. A key contribution to stock of literature is that the distance of schools from households determines child labour much more than family income in North Eastern Nigeria. This may be attributed to insecurity caused by the Boko Haram insurgency in the region.

Based on the findings of the research, several recommendations arise from the result. First, the result from the child's perspective shows that a child's age, the nature of the relationship with the head, and the number of siblings, together with other factors, greatly influence child participation in labour. Likewise, house and community characteristics such as occupations and income of the household, lack of access to water, distance to school, and so on. are all responsible for child labour engagement in labour. To tackle this problem, necessary actions have to be taken by the government and other regulatory agencies, especially in, increasing the minimum age for child labour regardless of the status of the child at home. Regarding household income level and the head's occupation, a strategised financial policy informed by a cash transfer scheme needs to be introduced. For community characteristics, the government needs to provide basic amenities or facilities like clean pipe-borne water, roads, hospitals, and so on. Thus, policies regarding child labour eradication should not stop attendance at international conventions but should rather be implemented at the grassroots. There is a need for general awareness of the problems associated with child labour, especially in our communities.



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