



## The Nexus between Rural-Urban Migration and Child Labour in Agriculture in Delta State Nigeria

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Rural-Urban Migration, Child Labour, Farm Labour, Child Activities

### Abstract

This study was conducted in Delta State Nigeria to establish a nexus between rural-urban migration and child labour. Random sampling was applied to select rural settlements and this study covers 450 sample farming households. The results show that rural-urban migration influence child labour ( $P < 0.05$ ). They also show that rural-urban mitigation positively influences child involvement in household farm work and farm wage work ( $P < 0.05$ ). It indicated that rural-urban migration prevents children from consistent attendance to school as it negatively related with schooling of these children ( $P < 10$ ). It is recommended that infrastructural development of rural areas be embarked upon, basic education be made compulsory and parents should be educated on how to schedule the children's farm work and schooling to avoid conflict; and extension agents should raise awareness of young adults on the benefit of engaging in agricultural practice.

### 1. Introduction

Migration studies have been of great importance, all over the world. The nexus between migration and labour scarcity has drawn the attention of many researchers recently. It is also observed that rural-urban migration dominated other patterns of internal migration. According to Ofuoku and Chukwuji (2012) migration as a selection process affects individuals or families with some economic, social, educational and demographic attributes. Migration by people is prompted by prevailing conditions and every individual has his/her reason for it.

It is difficult to strictly identify the cause of migration as such as causation implies absoluteness it is difficult to cite this or that factor as the absolute cause of the decision of an individual to relocate (Ekong, 2003). As a result, it is more scientific to point out the correlates of migration factors that are systematically related to the phenomenon of migration without necessarily proving causation. As observed by Ofuoku and Chukwuji (2012), most rural-urban migration studies tends to conclude that the primary reasons that prompt people to migrate

include economic reasons, and the need to escape from adverse social and physical conditions. For example, Von Braun (2004) opined that people tend to be pushed from areas of decline and pulled to areas of prosperity.

Migrants do not typically represent a random sample of overall population (Tadaro, 1976). Most migrants tend to be young, formally educated and are not risk-averse and more achievement oriented and also tend to possess a better network of connections in other places than does the general population in the push region (Ofuoku and Chukwuji; 2012). Okpara (1983) found that the population of rural-urban migrants out-weighs that of urban-rural migrants.

Rural-urban migration has resulted to shortage of people of working age (Gautam, 1999). He further observes that migration from rural to urban area has various demographic impacts at the village level as it changes sex ratio and the depending of labour force. Glaringly, the absence of young males from the rural areas increases the proportion of women, children and the aged (Gantam, 1999). Migration of young men from rural to urban areas

implies rural labour out-migration (Qin, 2010). This illustrates that rural labour out-migration has further complicated effects of migration on agricultural production practices. Qui (2010) found that the size per labourer cultivated land remained an important differentiator between labour-migrant and non-labour-migrant households.

Long-term male migration from rural to urban area may fundamentally change the gender division of labour in farm households (Meerza, 2010). This is expected to prompt farm labour shortage as most rural-urban migration makes heavy demand on all family members, especially on children who are left in rural area to take the responsibility of agricultural production and food security.

An estimated 70% of working children of 26 developing countries are involved in agricultural activities (Ashagrie, 1997). In the presence of diminishing supply of adult labour, especially male labour in rural area, prompted by adult rural-urban migration, farming households have to depend on either their children or hired labour or both (Meerza, 2010). Studies have revealed that rural-urban migration of able bodied young workers leaves the burden of farming on rural older adults and children in rural areas and these set of people tend to be less productive.

The issue of child labour has occupied the centre stage since the later part of the 20<sup>th</sup> century. International Labour Organization, ILO (2014) observes that worldwide, most 96% of child labourers are in the age range of 5-17 years and these ones are involved in agriculture. Asamu (2005) states that children are involved in various agricultural activities. Their involvement in these activities is expected to expose them to health and social hazards as they may be exposed to dangerous agro-chemicals and implements and may also prevent them from concentrating on their educational pursuit

The issues of child labour and rural-urban migration have been separately studied, but none has focused on the nexus between rural-urban migration and child labour in agriculture. Some recent studies such as carried out by Salmon (2005) found that children are much more likely to work when they live in households with low income generating potential, especially when this potential has been used up. The afore mentioned therefore prompted this study.

The major objective of this study was to establish the nexus between rural-urban migration of adults and child labour in agriculture in Delta State Nigeria specifically, the study sought to:

i. determine the household structure of migrant and non-migrant farming households;

ii. ascertain children activities in migrant and non-migrant farming households;

iii. determine the influence of rural-urban migration of adults on child labour among farming households

Hypotheses:

Ho<sub>1</sub>: child labour has no relationship with household structure.

Ho<sub>2</sub>: child labour has no relationship with rural-urban migration of adult household members and child activities

## 2. Materials and methods

This study was carried out in Delta State, Nigeria. The state is demarcated in 3 agricultural zones which include Delta North, Central and South Agricultural Zones. In Delta North Agricultural Zones, 3 farming villages of Adant, Ejeme-uno and Abavo were purposively selected for this study. In Delta Central Agricultural Zone, Boboroku, Ughweru and Adagbrasa villages were also purposively selected; while in Delta South Agricultural Zone, Odorubu, Patani and Agadabri were also purposively selected. These villages were purposively selected because of their serious involvements in arable and tree crops production and livestock, poultry and fish production.

From each selected village, 50 arable crop farming households were randomly selected. The selection was restricted to farming households that owned and operated their agricultural land in the villages. This resulted to selection of 450 samples of farming household heads with the help of trained enumerators for reliable and desirable information. In the absence of the household head, information desired were collected from another adult member of the household that was present. The interview schedule/questionnaire copies were sorted and it was discovered that 266 farming households had no migrant member (non-migrant household).

The data collected were analyzed with the use of frequency counts and percentages. While the hypotheses 1 and 2 were tested with the use of logit regression model.

For this study logistic regression model was chosen because the dependent variable was dichotomous. The binary response for this study was whether adult rural-urban migration impacted on child labour and child activities or not.

The empirical model specifying impact of rural-urban migration on child labour by the 1<sup>th</sup> farming household member emigration is explicitly specified as:

$$\ln\left(\frac{p}{1-p}\right) = \alpha_0 + \alpha_1 x_1 + \alpha_2 x_2 + \alpha_3 x_3 + \dots + \alpha_p x_p$$

$$p = \frac{e^{\alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \dots + \alpha_p X_p}}{1 + e^{\alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \dots + \alpha_p X_p}}$$

Where (for hypothesis 1)

Y= Child labour (dummy)

$\alpha_0$  = Constant term

$X_1$  = Household size (no of persons)

$X_2$  = Age of household head (years)

$X_3$  = Adult members of households (no of persons)

$X_4$  = Adult workers among all adults (no of persons)

$X_5$  = Adults engaged in rural agriculture (no of persons)

$X_6$  = Rural-urban migration (no of persons)

Where (for hypothesis 2)

Y= Rural-urban migration of household member (dummy)

$\alpha_0$  = Constant term

$X_1$  = Household farm work (Number of times weekly)

$X_2$  = Farm wage work (no of times weekly)

$X_3$  = Schooling (No of attendance weekly)

$X_4$  = Household farm work and schooling (dummy)

$X_5$  = Farm wage work and schooling (dummy)

### 3. Results and discussion

#### 3.1 Household structure and child activities

A total of 798 and 552 adults were discovered among migrant and non-migrant household respectively, while 1363 and 653 children were counted among the migrant and non-migrant households respectively. Table 1 indicates that most (48.12%) of the migrant households and most (57.61%) of the non-migrant households had sizes of 5-8 and 1-4 person respectively. This implies large family sizes. The trend of procreation and relations living with households in rural areas in the study area is attributed to this. However, this trend is mostly extant in migrant households. This is in consonance with Meerza (2010) who found that migrant households sizes are larger that of non-migrant households.

Most (50%) of the migrant households and non-migrant households (59.78%) had 4-6 and 1-3 children respectively. This is an indication that migrant households had more number of children than non- migrant households. This result has implications for migration and child labour.

There is no difference between the percentages of adult workers. However, more adult workers who were engaged in agriculture and live in rural areas were found among non-migrant household (83.33%) than among migrant households (42.73%).

Table 1. Household structure and child activities of migrants and non-migrant households

Characteristics	Migrant household	Non-migrant household
<b>Household structure</b>		
Household size (no of persons)		
1-4	63(23.68)	106(57.61)
5-8	128(48.12)	51(27.72)
9-12	75(28.21)	27(14.67)
Number of children		
1-3	61(22.93)	110(59.78)
4-6	133(50.0)	53(28.80)
7-9	72(27.07)	21(11.41)
Adult workers among household	798 (100.0)	552 (100.0)
Adult workers engaged in agriculture and live in rural area	341(42.73)	460(83.73)
Children workers among all children (n=1363)	1145(84.01)	268(40.04)
<b>Child activities</b>		
a. Total participation		
Household farm work	1112(81.58)	241(36.91)
Wage labour	33(2.42)	27(4.13)
Schooling	218(15.99)	385(58.96)
b. Participation in one activity		
Farm work only	405 (29.71)	56(8.58)
Wage work only	9 (1.10)	12(1.84)
Schooling only	218(15.99)	385(58.96%)
c. Combination of work and school		
Farm work and schooling	707(61.75)	185(28.33)
Wage work and schooling	24(1.76)	15(2.30)
Figures in parenthesis are percentages		

As a result of the shortage of adult labour in migrant households, prompted by rural-urban migration, child workers among migrant household (84.01%) were much higher than among non-migrant households (40.04%). Salmon (2005) observes that children are more likely to work when they live in households in which all the adults are engaged in work. With respect to total participation in work, 81.52% of children in migrant households and 36.91% of children in non-migrant households were engaged in every farm operation. As for wage labour, higher percentages (4.13%) of children in migrant households were engaged in wage labour than among children of non-migrant households.

Higher percentages (58.96%) of children of non-migrant households attend schools and participate fully in school activities than children of migrant households (15.99%).

As for participation in one activity, most (29.71%) children of migrant households were engaged in only farm work than children of non-migrant households (8.58%) but the percentage of wage workers among non-migrant household children (1.84). However, percentage of children schooling only was higher among children of non-migrant households (58.96) than among children of migrant households (15.99%). These findings confirm those of Meerza (2010) in his study in Bangladesh. With respect to combination of work and school, the percentage of migrant children who combined farm work and schooling is higher (61.75%) than the percentage of non-migrant households who combine farm work and schooling, but the percentage of children who combine wage work and schooling is higher among non-migrant household children than the percentage of children who combine wage-work and schooling among migrant household children. This finding is congruent with that of Meerza (2010) who found that in case of combination of wage work and schooling, it is less likely to find this combination among migrant households than non-migrant households.

### 3.2 The relationship between child labour and household structure

The logistic regression result indicating the relationship between rural-urban migration and household structure is as presented in Table 2. The result shows that: Household size ( $x_1$ ) had significant negative relationship with child labour. This implies that the smaller the household size, the higher the probability of engaging children in child labour in the family farm. This is at variance with the findings of Meerza (2010) as he did not find any impact of household size on child labour. The income generation potential of the household is low and when potentials have been exhausted children are

conscripted into farm labour. Age of household head ( $X_2$ ) also had significant negative relationship with child labour. This indicates that the older the household head, the more the likelihood of engaging children in child labour. This is congruent with Salmon (2005) who found that children are much more likely to work when household livelihood labour potentials have been exhausted. Presence of adult members of household ( $X_3$ ) had positive relationship with the tendency to engage children in labour. This is not congruent with the finding of Meerza (2010), Salmon (2005) who did not find such relationship. This implies that a unit increase in the number of adults in the house will increase the likelihood of child labour.

Presence of adult workers in the household ( $X_4$ ) had positive significant relationship with child-labour. This means that a unit increase in the number of adult workers in the household will lead to a unit increase in the likelihood of engaging children in farm labour. This agrees with Meerza (2010), Salmon (2005) who also found relationship between presence of adult worker in the household and child labour.

Engagement of adult in agriculture in the rural area ( $X_5$ ) had significant negative relationship with child labour. This is an inverse relationship and it is according to *a priori* expectation. This means that reduction or decrease in the number of household members that are involved in agriculture will lead to increase the likelihood of child labour.

The number of rural-urban migrant members of households ( $X_6$ ) turned out to be significantly and positively related with child labour. This implies that an increase in the number of rural-urban migrant household members will increase the probability of engaging children in farm work as farm labour force. As an adult member of the household emigrates, a vacuum is created and this translates to shortage of farm labour in the family farm. The household head, in this situation has no other option than to engage the children of between 6-17 years in the farm as his/her labour force.

Table 2. Logistic estimation of the relationship between child labour and household structure

Variable	Coefficient	Wald statistics
Constant	0.069	0.057*
Household size ( $x_1$ )	-0.048	0.004*
Age of Household head ( $x_2$ )	-0.689	0.665*
Adult members of household ( $x_3$ )	0.118	0.041*
Adult workers among all adults ( $X_4$ )	0.037	0.040*
Adult members engaged in agriculture in the rural area ( $X_5$ )	-0.118	0.051*
Migrated of household member ( $X_6$ )	1.005	0.625*

$R^2 = 0.181$  \*Significant at 5% level of significance

### 3.3 Relationship between rural-urban migration and child activities

It was hypothesized that there was no significant relationship between rural-urban migration and child activity. In testing this hypothesis, logistic regression model was adopted. The  $R^2$  value of 0.8473 indicates that 84.7% of the parameters of the logistic regression model are as shown in Table 3. All the variables, household farm work ( $X_1$ ); farm wage work ( $X_2$ ); schooling ( $X_3$ ); household farm work and schooling ( $X_4$ ); and farm wage work and schooling ( $X_5$ ) were significantly correlated with rural-urban migration. However, all the variables were positively and significantly correlated with rural-urban migration except schooling ( $X_3$ ) that was negatively and significantly correlated with rural-urban migration. The implication is that the more able bodies young adults migrate from rural to urban areas, the higher the level of child involvement in farm labour, the lesser the child attends school. The higher the number of rural-urban migrants, the more the level of labour shortage which translated into higher involvement of children in farm labour. The higher the level of rural-urban migration, the higher the chances of children getting involved in farm wage labour. It also means the lesser the number of days of attendance at school on the part of the children who are involved in farm labour. Rural-urban migration is also interpreted to lead to situations where children combine household farm work with schooling and combing of farm wage and schooling.

Child labour therefore, is seen to affect educational pursuit of children as they spend much time farming activities as a result of the labour vacuum created by rural-urban migration of able bodied young adults that form the major labour force in rural farming activities. Ofuoku and Chukwuji (2012) found that rural-urban migration led to shortage of agricultural labour in the Nigeria Delta region of Nigeria.

Table 3. Logistic estimation of the relationship between rural-urban migration and child activity

Variable	Coefficient	Wald statistics
Constant	0.684	0.07
Household farm work ( $X_1$ )	0.89	9.67**
Farm wage work ( $X_2$ )	0.64	7.47**
Schooling ( $X_3$ )	-0.49	4.33*
Household farm work and schooling ( $X_4$ )	0.93	12.48**
Farm wage work and schooling	0.58	6.85**
$R^2 = 0.8473$		

\* = significant at  $P < 10$ ; \*\* significant at  $P < 0.05$ .

This farm labour shortage in the migrant source areas prompts the conscription of children into farm labour force, being the alternative human resources left in the farming households. Child labour is partly caused by limited access to adult labour (ILO, 2010). Eswaran (1996) states that as child labour institution exists, parents tend to have more uneducated children.

Though, according to UNICEF (2006), child labour encourages transmission of farming skills from generation to generation, it exposes children to hazards in the field.

Rural-urban migration of young adults influences child labour as can be deduced from Table 3 as results show that it is correlated with children's activities. It is also negatively influences children education.

### 4. Conclusion and recommendations

The analysis of the nexus between rural-urban migrations is congruent with the hypothesis that rural-urban migration of young adults from rural households raises the probability conscripting children into farm labor in their respective households and others. It is also discovered in this study that the probability of involving children in farm work increases when the household size is small and when the household head is older a female. It also indicates that children are more likely to be involved in farm work if their households have high population of adult workers, and decreased number of adult workers engage in agriculture and live in rural areas. The empirical result indicates that rural-urban migration is positively and significantly related with the probability of involvement of children in household farm work farm wage work, combination of household farm work and schooling and combination of farm wage work and schooling. However it shows that rural-urban migration reduces the probability that children will attend school regularly.

In consideration of the afore stated, it is therefore recommended that:

Infrastructural development of the rural area should be encouraged to reduce rural-urban migration which creates vacuum in urban force that leads to child labour.

Basic education should be made compulsory and farming household heads should be educated on how schedule children's schooling and farm work without conflicting by extension agencies.

Extension agencies should raise awareness of young adults on the benefits of investing and engaging in agriculture. This may discourage rural-urban migration.

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## رابطه بین مهاجرت از روستا به شهر و کار کودکان در بخش کشاورزی در ایالت دلتا، کشور نیجریه

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این مطالعه در ایالت دلتا کشور نیجریه برای ارزیابی رابطه بین مهاجرت از روستا به شهر و کار کودکان در بخش کشاورزی انجام شده است. تعداد نمونه آماری ۴۵۰ نفر بود که از طریق نمونه‌گیری تصادفی از بین سرپرست ساکنین در این ایالت انتخاب شدند. نتایج نشان داد که کار کودکان در بخش کشاورزی تحت تأثیر مهاجرت از روستا به شهر می‌باشد ( $P < 0.05$ ). بر اساس نتایج حاصل مهاجرت از روستا به شهر بر بکارگیری کودکان در کارهای روزمزد مزرعه اثر مثبت داشته است ( $P < 0.05$ ). این موضوع نشان می‌دهد که مهاجرت روستاییان به شهر از حضور مداوم کودکان در مدرسه جلوگیری می‌کند و رابطه منفی با تحصیل این کودکان ( $P < 10$ ) دارد. پیشنهاد می‌شود که توسعه زیرساخت‌ها در مناطق روستایی مورد توجه قرار گیرد و آموزش ابتدایی اجباری شده و والدین در خصوص زمان‌بندی کار کودکان در مزارع آموزش ببینند تا با تحصیل آنها در مدرسه تداخل نداشته باشد. مروجین نیز باید آگاهی جوانان را که تمایل به مهاجرت دارند در خصوص فواید کار در بخش کشاورزی بالا ببرند.

### چکیده

کلمات کلیدی:  
مهاجرت روستا به  
شهر، کار کودک،  
کار مزرعه،  
فعالیت‌های کودکان