

EFFECT OF RURAL-URBAN MIGRATION ON HOUSEHOLD FOOD SECURITY IN UMUAHIA SOUTH LOCAL GOVERNMENT AREA OF ABIA STATE, NIGERIA

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ABSTRACT

This study analyzed the effects of rural-urban migration on household food security in Umuahia South Local Government Area of Abia State, Nigeria. Specifically the study examined the socio-economic characteristics of the migrants' household; identified the causes of rural-urban migration in the study area and determined the food security status of the respondents in the study area. A total of 120 respondents were randomly selected across 10 villages in the study area. A structured questionnaire was used to collect primary data. Data collected were analyzed using descriptive statistics and ordinary least square multiple regression model. The results of the descriptive statistics showed that the respondents have a mean age of 49 years and majority of the migrants' household were educated and married, with male dominated household constituting 79.16 % and mean household size of 5 persons. It also showed that most (81.66%) of the respondents were engaged in farming occupation with mean income of ₦50,737. The three main causes of rural-urban migration in the study area were: search for job, better education and join spouse. The results of the food security status showed that 66.67% of the respondents have food security index of less than 1. The results of the regression analysis showed that age, household size and food from friends were the major determinants of food security in the study area. The study thus recommends that government through its relevant agencies should encourage sustainable food production through subsidizing farm inputs and giving improved seedlings to farmers to boost their productivity and achieve the sustainable development goal of zero hunger by 2030.

Keywords: rural-urban migration, household and food security

Introduction

Migration, the movement of persons from one location to another in search of greener pasture is a common phenomenon among the human population. It has been identified as a survival strategy utilized by the poor, especially the rural dwellers (Ajaero and Onokala, 2013). On the other hand, food security exists when all people at all times have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life (Food and Agriculture Organization, 2010). The food and Agriculture Organization has reported a rise in world hunger after years of progress. It reported that 38 million more people were under-nourished in 2016 compared to 2015. The number

of undernourished or hungry people have reached 815 million, representing 11 percent of the world population (FAO, 2017). Asia has the highest number followed by Africa. The sustainable Development Goal 2 of the United Nations is aimed at ending hunger and all forms of malnutrition by 2030. Migration affects the sending communities either positively or otherwise as it entails the loss of manpower for productive activities. In Nigeria several studies have been conducted on migration but only a very few studies were found to deal with internal migration and food security directly (Afolabi, 2007; Crush *et al.*, 2006; Fasoranti, 2009). In Abia State, studies have been done on effect of rural-urban migration in rural communities (Ehirim, Onyeneke, Chdiebere-Mark and

Nnabuihe, 2012; Osondu, Ibezim, Obike and Ijioma, 2014). However, none dealt on its effect on food security status of rural households in Umuahia South Local Government Area. Therefore, this study is aimed at filling the gap in literature.

Methodology

The study was conducted in Umuahia South Local Government Area(LGA) of Abia State. Umuahia South LGA is one of the seventeen LGAs of Abia State with the headquarters at Apumiri Ubakala. It is bounded in the North by Umuahia North LGA, South by Isiala-Ngwa North LGA, East by Imo River and west by Ikwuano LGA. Umuahia South LGA covers an area of about 140 km² with a population of 138,570 comprising 68,950 males and 70,107 females (NPC, 2006). The inhabitants are predominantly Igbos and majority of them are Christians. The major food crops in the area include cassava, yam, maize, cocoyam, banana and various types of fruits. They also rear animals such as sheep, goat and poultry. Multi stage sampling technique was used in the selection of the respondents. Firstly, 5 autonomous communities were randomly selected in the study area. Secondly, 2 villages were randomly selected from each autonomous community making it a total of 10 villages. Thirdly, 12 migrants' households were randomly selected from each village. This makes a total of 120 migrants' households used for the study. Data for the study was sourced primarily using questionnaire and oral interview. Collected data were analyzed using descriptive statistics, food security index and ordinary least square multiple regression model as specified below: The expenditure survey approach of food security index was used to determine the food security status of the respondents. It is specified thus:

$$Z_i = \frac{\text{per capita monthly food expenditure for the } i\text{th household}}{\frac{2}{3} \text{ means per capita monthly food expenditure of all household}}$$

Where:

Z_i = food security index;
 when $Z_i \geq 1$, it implies that the i th household is food secure;
 when $Z_i < 1$, it implies that the i th household is food insecure

Model specification for the ordinary least square multiple regression for estimating the effect of rural-urban migration on household food security in the study area is explicitly stated as:

$$Z = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + e_i$$

Where:

Z = food security index

X_1 = Household size (number)

X_2 = Age of household head (years)

X_3 = Educational level of household head (number of years spent in school)

X_4 = Household income (naira)

X_5 = value of food from family and friends (naira)

X_6 = Migration (migration rate)

X_7 = Household dependency ratio (percentage)

β_0 = constant term

$\beta_1 - \beta_7$ = beta coefficient of explanatory variables

Results and Discussion

Socioeconomic characteristics of the respondents in the study area

The results of socioeconomic characteristics of the respondents as shown in Table 1 indicated that majority (77.5%) of the respondents are within the age bracket of 31 to 60 years with a mean age of 47 years. This implies that most of the respondents have the ability to engage in productive activities that will enhance their food security status. The results also showed that 55% of the respondents are males while the remaining 45% of the respondents are females.

It also indicated that all the respondents are literate with education attainment level of 12%, 39% and 49% respectively in primary, secondary and university respectively. As regards marital status, about (66.67%) of the respondents are married while 33.33% are single. This implies that most of them have the responsibility of ensuring that their households are food secured. Also Majority (79.16%) of the migrants' households are male headed while only 20.84% of the households are female headed. This result is plausible given that males are always regarded as the bread winners in most communities. The result also indicated that majority (81.66%) of the respondents are engaged in farming activities as means of livelihood, while only 18.34% of the respondents are engaged in non-farming activities. This finding is in line with that of Ajaero *et al.*, (2013) who observed that agriculture is the main source of livelihood of

rural communities in the south-eastern Nigeria. In addition, most (74.16%) of the respondents have household size of 1 to 6 persons with a mean size of 5 persons. This implies that most of them have manageable households that will serve as source of cheap labour for on-farm and off-farm activities. The result also indicated that majority (96.67%) of the respondents earn monthly income of between ₦1,000 to ₦100,000 with mean monthly income of ₦50,737. This implies that most of them earn above the country's minimum wage of ₦18,000.

The results of the descriptive statistics on Table 2 show that the main causes of rural-urban migration in the study area in descending order of importance include; search for job (49%), better education (25%), join spouse (24%), empowerment (18%) and skill acquisition (12%). This result is in line with that of neo-classical theorists who argued that migration is driven by spatial issues, job opportunities and better income expectations (Lee, 1966; Harris and Todaro, 1970; Zelinsky, 1971; Skeldon, 1997; Hagen-Zanker, 2008).

The result of the descriptive statistics (Table 3) to ascertain the food security status of rural migrants' households in the study area indicated that 66.67% of the households were food insecure with food security index of less than 1, while the remaining 33.33% of the sampled respondents were food secured with food security index of greater than or equal to 1. This implies that food insecurity can trigger rural-urban migration. This result is in consonance with the report of the Food and Agriculture Organization (2017) on a rise in world hunger with 11 percent of the world population hungry.

The result of the regression analysis on the effect of rural-urban migration on food security status of the respondents is presented in Table 4. The results of the ordinary least square multiple regression in table 4 shows that the semi-log functional form had the highest F ratio of 21.839 which is significant at 1% level of probability. Highest R^2 of 55.4% and 3 significant variables. Hence, it was chosen as lead equation and used for the interpretation. The results of the semi-log functional form of regression model showed that age, household size and food from friends were the significant variables that affected food

security status of the rural households in the study area. The coefficient of age (-0.13%) was negative but significant at 10% level of probability. This finding is in conformity with a priori expectation given that people tend to eat more and work less as they age which will adversely affect the food security status of the migrants' households. The coefficient of household size (-0.148) was negative but significant at 1% level of probability. This means that a unit increase in household size holding other variables constant leads to 0.148 reduction in rural household food security status. The coefficient of food from friends ($5.237E-5$) was positive and significant at 1% level of probability. The implication of this finding is that an increase in food from family and friends of the migrants' household will increase their household food security status. The R^2 value of 0.577% means that 57.7% of the variation in the dependent variable was explained by the independent variables included in the model. The F-ratio of 21.839% which is significant at 1% shows the goodness of fit in the model.

Conclusion

The findings of this study have shown that search for job and better education are the major causes of rural-urban migration in the study area. It also indicated a high level of food insecurity in the study area. Thus, the study recommends that: Government should establish food processing industries in rural areas to process the farm produce and create jobs. Government should also equip schools in the rural areas with the necessary infrastructure to reduce the rate of migration. Its relevant agencies such as; Ministry of Agriculture and Rural Development; Agriculture Development Program and Financial institutions should expedite action in subsidizing farm inputs, give improved seedlings and soft loans to farmers to boost their productivity and food security status in order to achieve the sustainable development goal of zero hunger by 2030.

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Table 1: Socioeconomic characteristics of the respondents (n = 120)

Variables	Frequency	Percentage	Mean
Age			
1-30	9	7.5	47
31-60	93	77.5	
61 and above	18	15	
Total	120	100	
Sex			
Male	66	55	
Female	54	45	
Total	120	100	
Level of education			
Primary	14	12	
Secondary	47	39	
University	59	49	
Total	120	100	
Marital status			
Single	40	33.33	
married	80	66.67	
Total	120	100	
Gender of household head			
Male	95	79.16	
Female	25	20.84	
Total	120	100	
Occupation			
Non-Farming	22	18.34	
Farming	98	81.66	
Total	120	100	
Household size			
1-3	35	29.16	5
4-6	54	45	
7-9	21	17.5	
10 and above	10	8.34	
Total	120	100	
Income			
1,000 – 50,000	72	60	50,737
51,000 – 100,000	44	36.67	
101,000 – 150,000	2	1.67	
151,000 and above	2	1.66	
Total	120	100	

Source: Field survey, 2016

Table 2: Causes of rural-urban migration in the study area

Variables	Frequency	Percentage	Rank
Job	59	49	1 st
Better education	30	25	2 nd
Join spouse	29	24	3 rd
Empowerment	22	18	4 th
Skill acquisition	14	12	5 th

Source: Field survey, 2016

Table 3: Food security status of rural migrants' households in the study area

Food security index	Frequency	Percentage
Less than one (<1)	80	66.67
Greater than or equal to one (≥ 1)	40	33.33
Total	120	100

Source: Field survey, 2016

Table 4: Effect of rural-urban migration on household food security in the study area

Variables	Linear	Double log	Semi-log	Exponential
Constant	3.024 (2.298)	0.236 (0.148)	0.923 (0.0750)	-1.933 (0.376)
Age	-0.040 (-2.311)*	0.252 (-1.116)	0.013 (-2.254)*	0.692 (0.947)
Education	0.030 (0.501)	0.038 (0.129)	0.010 (0.483)	0.052 (0.055)
Gender of household head	0.431 (0.826)	0.289 (-1.471)	0.041 (0.231)	-1.318 (-2.077)*
Household size	0.161 (-9.9560)*	0.883 (-5.723)***	0.148 (-5.321)***	-1.316 (-2.641)***
Income	8.278E ⁻⁶ (1.236)	0.139 (6.735)***	2.313E ⁻⁷ (0.102)	0.349 (5.228)***
Migration	0.002 (0.303)	0.099 (0.767)	0.003 (0.992)	0.652 (1.568)
Food from family and friends	0.000 (10.205)***	0.033 (0.517)	5.237E ⁻⁵ (9.456)***	0.007 (0.031)
R ²	0.507	0.420	0.554	0.240
R	0.732 ^a	0.674 ^a	0.760 ^a	0.534 ^a
F	18.462***	13.289***	21.839***	6.382***

Source: Field survey, 2016; *** significant at 1% level; ** significant at 5% level and * significant at 10% level