

# Incidence of Rural Poverty in Ekiti State, Nigeria

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**Abstract:** This Study examined incidence of rural poverty in Ekiti State, Nigeria. 120 rural households were sampled across the state and interviewed with the aid of well- structured questionnaire. Foster, Greer and Thorbecke (FGT) poverty index was used to depict the extent of poverty among the rural households. The poverty aversion parameters employed were P0, P1, and P2 which means poverty incidence (headcount), gap (depth) and severity respectively. The incidence of poverty was 0.7378 and this implies that 73.8% of the sampled rural households were actually poor based on the poverty line. The poverty gap was 0.5725 indicating that about 57.3% of the poverty line is required by the poor households to escape poverty. While, the poverty severity among the sampled rural households was 0.4775, indicating that the poverty severity of poor households was 47.8%. The study established the fact that majority of rural households in the State were poor. Participation in social groups should be encouraged among the rural dwellers, belonging to such groups have beneficial effects which could positively influence the poverty status of the rural households.

**Keywords:** incidence, Depth, Severity, Poverty.

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## I. INTRODUCTION

Poverty is a social phenomenon that has been the subject of debate and research for several decades. It is a major problem in the world and every minute a person dies due to poverty related reasons [1].

One of the objectives of the Millennium Development Goals is to significantly reduce hunger and poverty by the year 2015. Agriculture has been identified as not only a strategic sector but the dominant economic sector with greatest potentials for addressing the multiple challenges of achieving the broad-based objectives of economic growth, wealth creation, poverty reduction, food security and full employment towards realizing the Vision 2020:20[2].

According to African Development Bank (2013) Nigeria's prospect of halving poverty by 2015 seems weak as the Federal Government's efforts to reduce poverty rate by 2015 is weak. The proportion of people living below the national poverty line has worsened from 65.5 per cent in 1996 to 69.0 per cent in 2010 [3].

Poverty in Nigeria is more prevalent in the rural sector due to dwindling and inequitable distribution of real income. [4]. The livelihoods of the Nigerian poor, both in rural and urban areas, depend primarily on agriculture, as at least two-thirds of the total labour force is engaged directly or indirectly in agriculture-related enterprises. Hence, for the majority of poor Nigerian households, improving the productivity of the domestic food and agricultural systems is key to enhancing well-being and escape from poverty [5].

World Bank (2001) defined poverty as a pronounced deprivation of human wellbeing; which include vulnerability to adverse events outside their control, being badly treated by the institutions of state and society and being excluded from having a voice and power. On the basic need approach, poverty can either be absolute or relative [6]. Poverty in absolute sense is a situation where a section of population is unable to meet its bare subsistence essentials of food, shelter and clothing in order to maintain minimum standard of living. Absolute poverty refers to the lack of the minimum physical requirements of a person or a household for existence and at its extreme those affected are no longer able to lead a life

worthy of human dignity [7]. Relative poverty on the other hand is defined in the context of economic inequality in the location or society in which people live e.g within a village, town, city, state, province, region, and country.

## II. METHODOLOGY

### 2.1 Study Area

The study was carried out in Ekiti State, Nigeria, which lies within the tropics between longitudes 4°45'1" and 6°45'1" East of Greenwich meridian and latitude 6°15'1" and 8°51'1" North of equator.

The selection of the state is justified by its high incidence of poverty within the South Western states [8]. The people of the state are to large extent, rural dwellers whose poverty is a result of inability to generate enough income from their agricultural and non-agricultural activities to increase production [9].

### 2.2 Sampling Procedure

Multi-stage sampling technique was employed in this study. In the first stage, three Local Government Areas (LGAs) were randomly selected from the State. These local government areas are: Ekiti South-West Local Government, Ilejemeje Local Government and Gbonyin Local government. In the second stage, two (2) communities from each of the selected Local Government Areas were randomly selected. At the third and final stage, twenty (20) households were randomly selected from each of the communities making a total of one hundred and twenty (120) respondents.

### 2.3 Analytical Techniques

#### Foster, Greer and Thorbecke (FGT) Poverty Measures

Following Foster *et al* [10], poverty line was computed as the 2/3rd of the mean per capita annual expenditure of all members of the households. The FGT index allows for the quantitative measurement of poverty status among subgroups of a population (i.e., incorporating any degree of concern about poverty) and has been widely used [11].

$$P_{\alpha}(y, z) = \frac{1}{n} \sum_{i=1}^q \left( \frac{z - y_i}{z} \right)^{\alpha}$$

Where:

n = total number of households in population

q = the number of poor households

Z = the poverty line for the household

y<sub>i</sub> = household income α = poverty aversion parameter and takes on value 0, 1, 2

$\left( \frac{z - y_i}{z} \right)^{\alpha}$  = proportion shortfall in income below the poverty line.

#### i. Incidence of Poverty

When α = 0 in FGT, the expression becomes:

$$P_0 = \frac{q}{n}$$

This is called the Incidence of poverty or headcount index, which measures the proportion of the population that is poor i.e. falls below the poverty line.

#### ii. Depth of Poverty

When α = 1 in FGT, the expression becomes:

$$P_1 = \frac{1}{n} \sum_{i=1}^q \left( \frac{z - y_i}{z} \right)$$

This is called Poverty depth or Poverty gap index, which measures the extent to which individuals fall below the poverty line as a proportion of the poverty line.

#### iii. Poverty Severity

When  $\alpha = 2$  in FGT, the expression becomes:

$$P_2 = \frac{1}{n} \sum_{i=1}^q \left( \frac{z-y_i}{z} \right)^2$$

This is called Poverty severity index measures the squares of the poverty gaps relative to the poverty line.

### III. RESULTS AND FINDINGS

Foster, Greer and Thorbecke (FGT) poverty index was used to depict the extent of poverty among the rural households in the study area. The poverty aversion parameters employed were P0, P1, and P2 which means poverty incidence (headcount), gap (depth) and severity respectively. Poverty incidence indicate the percentage of the households falling below the poverty line; poverty depth shows the amount by which the poor fall short of the poverty line and severity of poverty is the sum of the square of poverty depth divided by the number of poor households in the sample.

The estimated total per capita expenditure of the rural household was ₦6,555,865.06, while the mean per capita expenditure was ₦ 54,632.20. The poverty line computed was ₦36,603.57, as the two thirds (2/3) of the per capita expenditure mean. Thus, the rural households that earn less than the value of poverty line were considered being poor, while those that earn greater than equal to the value of poverty line were considered to be non-poor.

As shown in Table 1, the poverty incidence (P1) in the study area was 0.7378 indicating that 73.8% of the sampled rural households were actually poor based on the poverty line. The poverty gap (P1) was 0.5725. This implies that about 57.3% of the poverty line is required by the poor households to escape poverty. The poverty severity (P2) among the sampled rural households was 0.4775, indicating that the poverty severity of poor households was 47.8%.

**TABLE 1: ESTIMATES OF POVERTY INCIDENCE, DEPTH AND SEVERITY**

Poverty Index	Incidence (P0)	Depth (P1)	Severity (P2)
	0.7378	0.5725	0.4775

Source: Computed from Field Survey, 2016

**TABLE II: DISTRIBUTION OF HOUSEHOLD CHARACTERISTICS BY POVERTY INDEX**

Variables	Decomposition	Incidence	Depth	Severity
<b>Sex</b>	Male	0.7233	0.5723	0.4875
	Female	0.7429	0.5725	0.4740
<b>Marital Status</b>	Single	0.3044	0.2701	0.2470
	Married	0.8750	0.7409	0.6541
	Divorced	0.7765	0.5883	0.4832
	Widowed	0.3929	0.2851	0.2093
<b>Age (years)</b>	≤30	0.6716	0.1091	0.4477
	31-40	0.7303	0.6039	0.5120
	41-50	0.9524	0.7026	0.5587
	51-60	0.8351	0.6258	0.5174
	61-70	0.7500	0.5005	0.3913
	>70	0.5000	0.4615	0.4262
<b>Households size</b>	1-5	0.6870	0.4347	0.3158
	6-10	0.7749	0.6208	0.5266
	>11	0.4324	0.3970	0.3670
<b>Educational Level</b>	No formal	0.8641	0.7075	0.6037
	Primary	0.8415	0.6452	0.5345
	Secondary	0.7288	0.5358	0.4425
	Tertiary	0.3034	0.2323	0.1809
<b>Primary Occupation</b>	Farming	0.8188	0.6544	0.5522
	Handcraft	0.6340	0.4868	0.4090
	Civil service	0.5692	0.3226	0.2352
	Petty trading	0.7647	0.6225	0.5169
	Others	0.7368	0.6057	0.5004

Membership Social Group	Yes	0.6100	0.4537	0.3715
	No	0.9766	0.7945	0.6756
Access to Credit	Yes	0.6706	0.5236	0.4402
	No	0.8195	0.6319	0.5227

Source: Field survey 2016

### 3.1 Decomposition of Poverty based on Sex

As depicted in Table 2 and Figure 1, the analysis of poverty profile based on sex shows that households headed by female were poorer than their male-headed counterparts in the study area. The incidence, depth and severity of poverty for female were 0.7429, 0.5725 and 0.4740 respectively, while the corresponding figure for the male were 0.7233, 0.5723 and 0.4875 respectively. This finding is in line with views of [12].

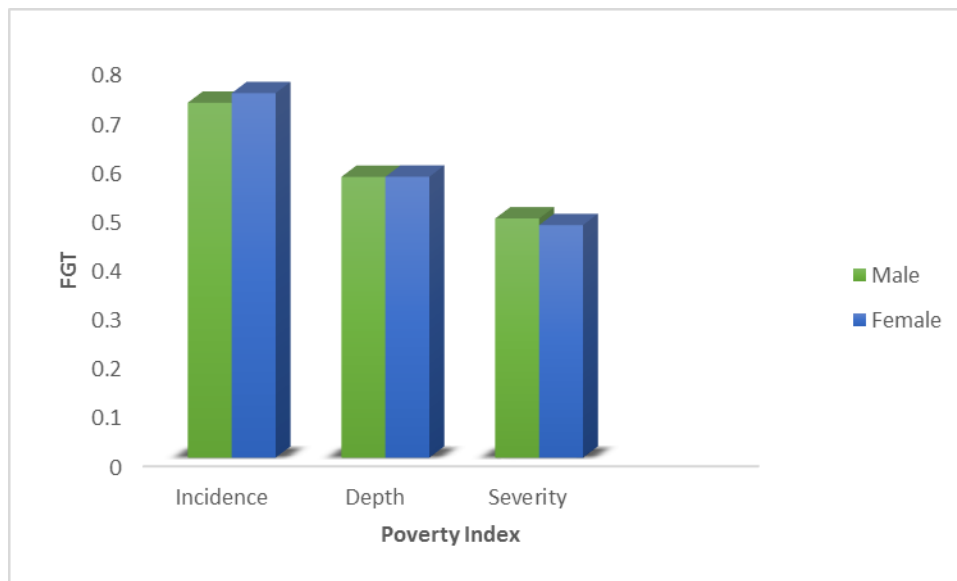


Figure 1: Poverty incidence, depth and severity based on sex

### 3.2 Decomposition of Poverty based on Marital Status

Figure 2 shows poverty profile based on marital status. Married respondents had the highest incidence of poverty incidence, depth and severity. This is in line with *a priori* expectation as being married implies more members of household, hence greater dependence on the family income and, thereby reduction in per capita income. This finding is in line with the finding of [13]

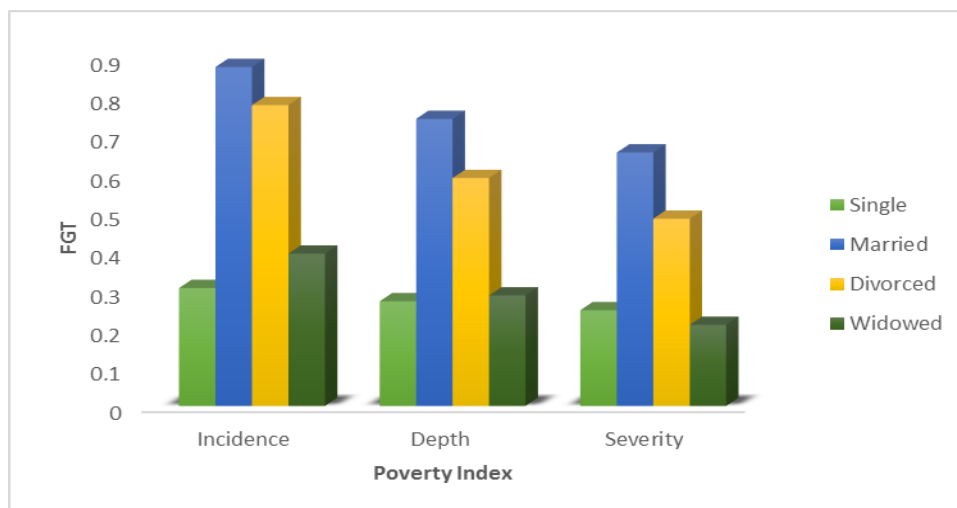


Figure 2: Poverty incidence, depth and severity based on marital status

### 3.3 Decomposition of Poverty Based on Age

In Figure 3, analysis of incidence, depth and severity of poverty based on age of respondents shows that these indices of poverty is least for those that are less than or equal to 30 years and those that are above 70 years of age. This could be explained by the life cycle hypothesis (LCH) of [14]. The theory explains changes in consumption in terms of age. At the early age, consumption is autonomous, it increases at the middle age and then declines beyond the age 63.

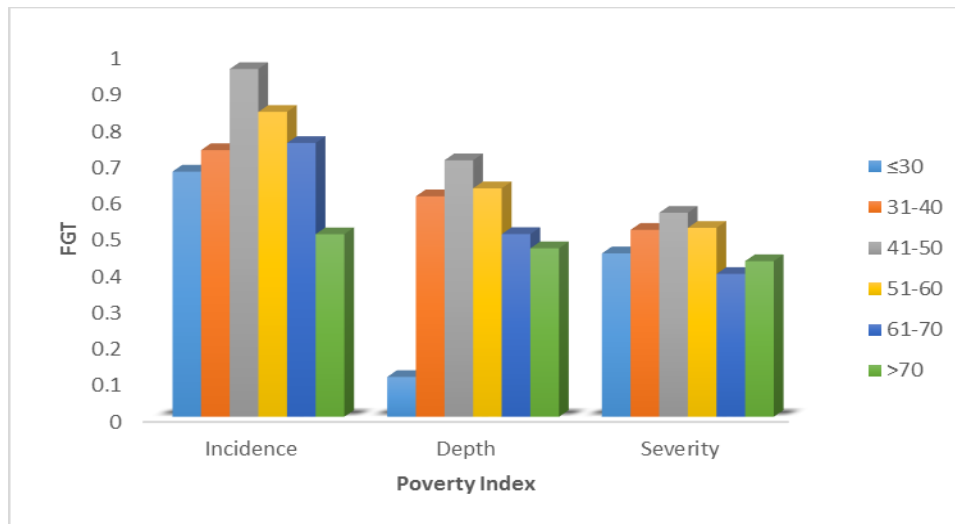


Figure 3: Poverty incidence, depth and severity based on age

### 3.4 Decomposition of Poverty Based on Household Size

Figure 4 also depicted the relationship between poverty levels and household. Households having 6 to 10 members had the highest incidence of poverty, while those that have more than 11 members have the least incidence of poverty. This results is contrary to *a priori* expectation because large household size is expected to reduce family income but, this could be as a result of those households with more than 11 members might have more working members that contribute to family income.

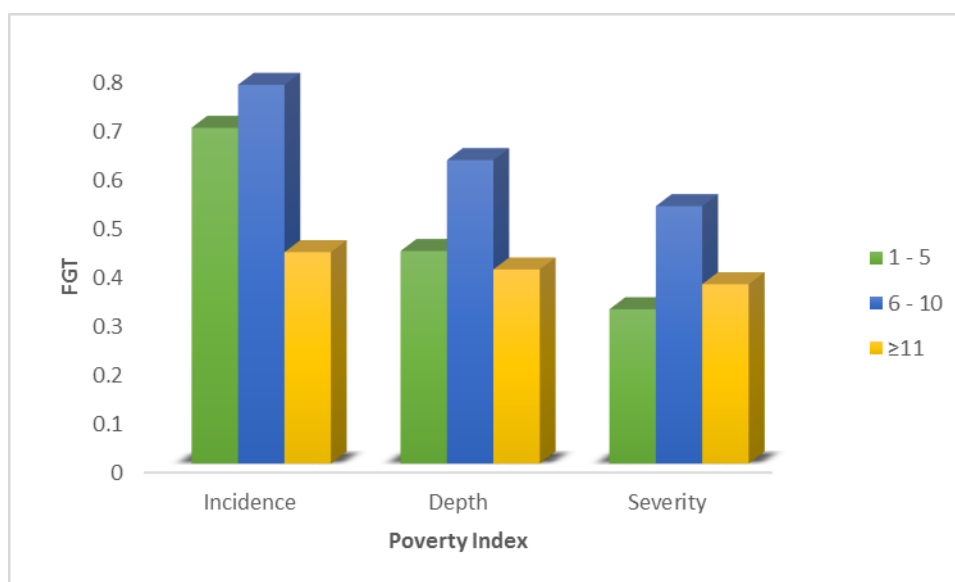
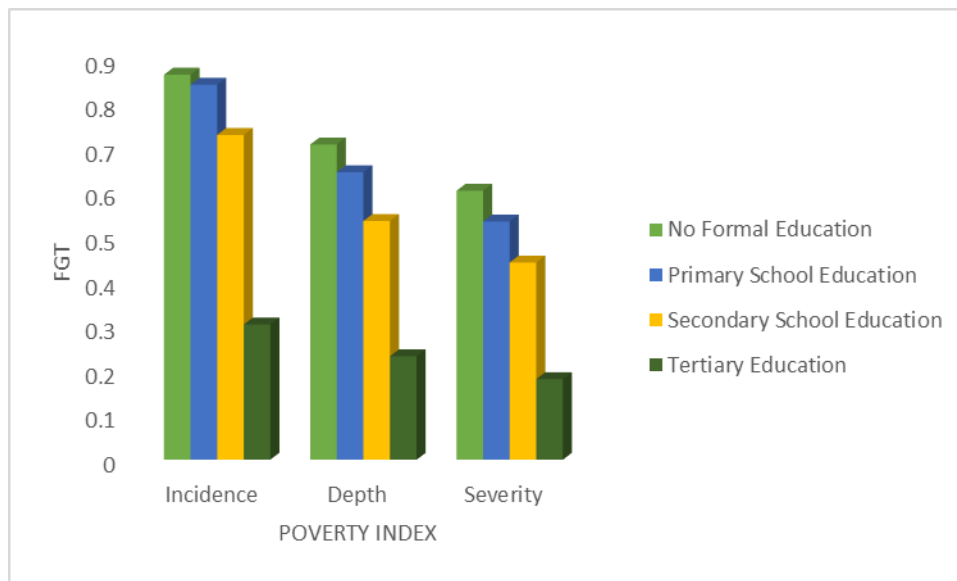


Figure 4: Poverty incidence, depth and severity based on household size

### 3.5 Decomposition of Poverty Based on Educational Level

In Figure 5, analysis of incidence, depth and severity of poverty based on Educational level of the respondents showed that these indices of poverty is highest for those that had no formal education and least for those with highest education.

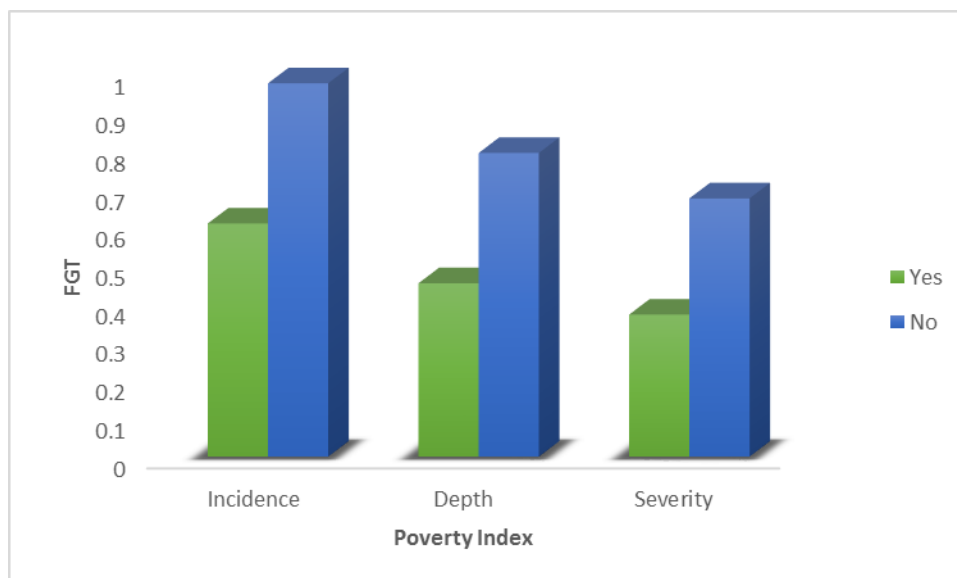
This implies that the more the number of years of schooling of the respondents, the lower the likelihood of being poor. Education has been identified as a major strategy of poverty eradication which ensures production skills that combines land and other factors of production for efficient productive activities [15].



**Figure 5: Poverty incidence, depth and severity based on educational level**

### 3.6 Decomposition of Poverty Based on Membership of Social Group

Table 2 and figure 6, show the analysis of poverty profile based on membership of social Group. The incidence of poverty, depth and severity for the respondents that belong to social group were; 0.6100, 0.4537, and 0.3715 respectively. While those who did not belong to social group were; 0.9766, 0.7945, and 0.6756. This implies that the probability of being non-poor is lower among respondents that belong to social group. This is as a result of various welfare benefits that members derive from different social group. This finding is in line with [16]



**Figure 6: Poverty incidence, depth and severity based on belonging to social group**

## IV. CONCLUSION

The study examined incidence of rural poverty in Ekiti State Nigeria. The estimated total per capita expenditure of the rural household was ₦6,555,865.06, while the mean per capita expenditure was ₦ 54,632.20. The poverty line computed was ₦36,603.57, as the two thirds (2/3) of the per capita expenditure mean. Thus, the rural households that earn less than

the value of poverty line were considered being poor, while those that earn greater than equal to the value of poverty line were considered to be non-poor. The incidence of poverty was 0.7378 and this implies that 73.8% of the sampled rural households were actually poor based on the poverty line. Also, the decomposition poverty profile based on marital status shows that married respondents had the highest incidence of poverty incidence, depth and severity

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