



# Comparative Analysis of Multidimensional Welfare Deprivation among Women in Rural and Urban South-South Nigeria

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## Abstract

This study examined multidimensional welfare deprivation of women in rural and urban South-South (SS) Nigeria. Secondary data from Nigeria Demographic Health Survey (NDHS, 2013) was used for this study. A total number of 1965 women in rural and 1275 in urban South SS were covered in the study. Data analysis was done using descriptive statistics and fuzzy analysis. The mean age of women in rural SS was 34 years while in urban SS it was 28 years. The highest level of education attained by women in rural SS was complete primary education while in urban SS the women had complete secondary. This level of education had effect on their deprivation status because women in rural SS were less educated and more deprived than women in urban SS. In rural SS women have a mean household size of 6 while in the urban area women have a mean household size of 5. The Deprivation index for rural women ranges from 0.05 to 0.89 with a mean value of 0.39 in rural SS and in urban SS the Deprivation index ranges from 0.19 to 0.96 with a mean of 0.29. In the study area women had their Deprivation index between 0.000 - 0.9000 in both rural and urban SS. Women in urban SS have high deprivation compared to the women in rural SS, this can also be related to their educational attainment because women in urban SS are more educated than women in rural SS. For women's deprivation status to be improved the rural community should be educated on the need to improve on their housing and sanitation characteristics and autonomy. Also interventions in the area of housing and sanitation characteristics and education should be made in urban SS.

## Subject Areas

Economics

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## Keywords

Deprivation, Multidimensional Poverty, South-South Nigeria, Welfare, Women

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## 1. Background/Problem Statement

Deprivation can be referred to as a lack of socially defined necessities and the consequent social marginalization that is entailed, while the poor can be referred to as those who lack the resources to obtain the types of diet, participate in the activities and have the living conditions and amenities which are customary, or at least widely encouraged or approved, in the societies in which they belong [1]. It also emphasize the individual experience of discontent when being deprived of something to which one beliefs oneself to be entitled [2] [3] [4]. Welfare deprivation can be measured by an individual's possession of income, health, nutrition, education, assets, housing, and certain rights in a society such as freedom of speech. It also connotes lack of opportunities, powerlessness, and vulnerability. Women in Nigeria continue to be deprived and poor as a result of our socio cultural norms and belief that women are seen as second class citizen. Women have not been able to get and utilize opportunities such as ownership of assets, education that could better their lot and improve their welfare. As such there has been an increasing incidence of poverty and deprivation among rural women in the country because 70% of women are living below the poverty line.

Although giant strides have been made in reducing gender inequality in many African countries such as Nigeria, but women still face higher rates of poverty compared to their male counterparts [5]. Successive governments in the past at various levels have put in place measures and policies to drastically reduce the soaring rate of poverty and deprivation in the country especially among women through several programmes. Such policy measures according to [6] focus essentially on growth, basic needs, and rural development approaches, some of which were initiated before and after the independence. The period 1960 to 2009 witnessed several poverty alleviation policies, some of which include: Primary Health Care and Disease Programme (1982); Women Education Project (1986); Family Economic Advancement Programme (1997); Better Life For Rural Women programme (1987); Women in Health Development Project (1989); National Directorate of Employment (1986); National Poverty Eradication Programme (2001); National Economic Empowerment and Development Strategy NEEDS 2003; Seven Point Agenda (2009); and Nigeria Vision 20:2020 (2009). Also Non-Governmental Organisations (NGOs), States and Federal governments at various times rendered assistance to less privileged women and those in difficult situation by procuring and distributing skills acquisition/economic empowerment equipment to enable them improve their economic base, such as sewing machine, embroidery machine, hair wash sink/basin, hair dryer, ther-

mocool deep freezer, 5 horse power grinding machine, 2.7 KVA thermocool generator, among others [7]. An inter-ministerial committee on women in agribusiness was constituted with the thrust of enhancing women's access to productive agricultural assets in the agricultural business. The committee ensured comprehensive appraisal of the skills acquisition centers nationwide in conjunction with the Federal Ministry of Lands, Housing and Urban Development. In addition, the committee/program is meant to ensure the attainment of the Millennium Development Goals (MDGs) 3, 4, 5 and 6 (Promoting gender equality and women empowerment; reduce child mortality and improve maternal health) through ambulance emergency intervention program; fight HIV/AIDS scourge and malaria disease as was put in place by the United Nations.

Some of the programs recorded certain level of successes; however, a number of them could not be sustained. Although some became moribund, others were replaced. Issues of corruption, political instability, policy inconsistencies, underfunding, duplication of roles of other agencies, policy reversals, and incompetence on the part of people appointed to serve as heads of programs were factors that militated against the successes of these initiatives. Also, all these programs never made great impact in effectively addressing the problem. In fact, welfare condition is becoming worse by the day and if drastic steps were not urgently taken towards effectively addressing poverty in Nigeria, especially among women, there is likely to be a wanton catastrophic impact on the country and perhaps the world. Without access to opportunities to further their education and interventions to improve their welfare, women will continue to disproportionately experience poverty in Nigeria [8] [9]. Thus, this calls for urgent concern.

Nigerians (65%) live below the poverty line without any access to basic goods, services and commodities [10]. Since women constitute almost half of the population going by the latest population census in the country, it is convenient to say that most women are the victims of poverty in Nigeria today [11]. There have also been evidences that people in the rural area are more deprived or poorer than people in the urban areas. The rural poor account for 80% of African poverty, but urban poverty is substantial and appears to be growing [12].

People in the urban areas have access to amenities like electricity, roads, telecommunication among others than people in the rural areas. According to MPI 2014, 85% of multidimensional poor live in rural areas [13].

Women are an important segment of the human population and constitute critical links between the present generation and the future. Appropriate investment in women's welfare has been shown to be of great benefit to the individual, household, and community. Such investment also benefits nations greatly in terms of poverty reduction, improved national economic performance, and realisation of the fundamental human rights of women [14]. Failure to accord the deserved attention to the welfare of women, on the other hand, carries grave implications for them, their children and households.

Methodologically, several studies such as [15] [16] [17] [18] used Principal Component Analysis (PCA) to construct welfare indicators. However, for this study Fuzzy set analysis was used to estimate the deprivation status of women. The Fuzzy set analysis provides more flexibility in terms of involving conceptual and theoretical inputs and also leads to outputs that are easier to visualise and interpret [19]. The Fuzzy set also avoids jumps between two extremes but rather a gradation from one end of an attribute to another, a kind of discrete arrangement. This means that women would not just fall into the traditional dichotomy deprived and non-deprived but take into consideration degree of deprivation.

Appropriate investment in women's welfare has been shown to be of great benefit to the individual, household, and community. Such investment also benefits nations greatly in terms of poverty reduction, improved national economic performance, and realisation of the fundamental human rights of women [14]. Failure to accord the deserved attention to the welfare of women, on the other hand, carries grave implications for them, their children and households.

Understanding of welfare of women may have been a driving force for welfare deprivation among women which has warranted this study. More so, the SDG underscores the multidimensional nature of welfare deprivation as it dominates the goals set by the United Nations. The first SDG reflected the income dimension of welfare, to end poverty in all its forms everywhere from 2015-2030 while the other SDGs focused on non-income dimensions of well-being: education, health, access to water and sanitation. Reducing women's deprivation needs the contributions of both the public and private sectors of the economy and international partners, and also adequate social protection policies should be put in place in the country. Therefore, the study provided empirical evidence on the deprivation status of women in rural and urban SS. This is geared towards proffering necessary intervention strategies to reducing the inherent deprivations experienced by rural women.

It is against this background that this study is comparing welfare deprivation by women in rural and urban South-South (SS) region in Nigeria. It is in view of this that this study proffered answers to these research question; What is the welfare deprivation status of women in rural and urban South-South. The main objective of this study is to examine the welfare deprivation of women in rural and urban South-South Nigeria.

## **2. Theoretical Framework and Literature Review**

### **2.1. Theoretical Framework**

#### **Relative Deprivation Theory**

Feelings of deprivation are relative, as they come from a comparison to social norms that are not absolute and usually differ from time and place. This differentiates relative deprivation from objective deprivation (also known as absolute deprivation or absolute poverty)—a condition that applies to all underprivileged people. This leads to an important conclusion: while the objective deprivation

(poverty) in the world may change over time, relative deprivation will not, as long as social inequality persists and some humans are better off than others.

Relative deprivation theory refers to the idea that feelings of deprivation and discontent are related to a desired point of reference (*i.e.* reference groups). Feelings of relative deprivation arise when desires become legitimate expectations and those desires are blocked by society. Social satisfaction is the opposite of relative deprivation. Relative deprivation is generally considered to be the central variable in the explanation of social movements and is used to explain the quest for social change that inspires social movements; social movements emerge from collective feelings of relative deprivation [20]. Relative deprivation theory focuses on feelings and actions. For example, the theory encourages the exploration of an individual's feelings of deprivation that may result from comparing his or her situation with that of a referent person or group as well as the behavioural effects of deprivation feelings. In particular, relative deprivation theory is the foundation of multiple theories of social psychology including frustration, aggression theory, equity theory, social comparison theory, and reference group theory.

Deprivation theory means that people who are deprived of things deemed valuable in society whether money, justice, status or privilege to join social movements with the hope of redressing their grievances. This is a beginning point for looking at why people join social movements; however, it is even more important to look at relative deprivation theory, a belief that people join social movement based on their evaluations of what they think they should have compared with what others have. On the contrary, absolute deprivation is people's actual negative condition; relative deprivation is what people think they should have relative to what others have, or even compared with their own past or perceived future. Improved conditions fuel human desires for even better conditions, and thus can spark revolutions. The central idea of relative deprivation theory suggests that individuals or groups feel deprived when their current circumstances are negatively compared to the situation of others. In this study women deprivation are measured based on some dimensions as compared to what is acceptable in the society which is what this theory is about.

## 2.2. Literature Review

[21] in his work on multidimensional measurement of poverty among women in Sub-Saharan Africa opined that since the seminal work of Sen, poverty has been recognized as a multidimensional phenomenon. The recent availability of relevant databases renewed the interest in this approach. This paper estimates multidimensional poverty among women in fourteen Sub-Saharan African countries using the Alkire and Foster multidimensional poverty measures, whose identification method is based on a counting approach. Four dimensions are considered: assets, health, schooling and empowerment. The results show important differences in poverty among the countries of the sample. The multidimensional poverty estimates are compared with some alternative measures such as the

Human Development Index, income poverty, asset poverty and the Gender-related Development Index. It is found that including additional dimensions into the analysis leads to country rankings different from those obtained with the mentioned four measures. Decompositions by geographical area and dimension indicate that rural areas are significantly poorer than urban ones and that a lack of schooling is, in general, the highest contributor to poverty. The paper also conducts robustness and sensitivity analyses of the multidimensional estimates with respect to the number of dimensions in which deprivation is required in order to be considered poor, as well as to the poverty lines within each dimension. Several cases of dominance between countries are found in the first robustness test.

[7] used the fuzzy set approach to analyse multidimensional well-being of women in rural Nigeria using the 2008 Demographic and Health Survey data. The study decomposed multidimensional well-being across the zones, states, and the socio-economic groups of rural households. It further decomposed the absolute and relative contributions of welfare indicator to multidimensional well-being. The result shows that the multidimensional well-being for women in rural Nigeria is 0.34. In summary, middle-aged women with higher education from a small sized female-headed household employed in the non-agricultural sector have higher wellbeing indices than other groups. It was concluded that intervention should be made in the area of education and access to information, employment, autonomy and these interventions should take cognizance of the culture of women especially in the northern part.

[22] estimated the multidimensional poverty indices for women and children in Kenya using two dimensions of wellbeing. The Alkire and Foster's (2007) counting approach was used to measure multidimensional poverty in two dimensions of health and assets, and a bi-probit model was used to explain multidimensional poverty. The result of the analysis shows that the highest contribution to multidimensional poverty is from assets relative to health, rural sector relative to urban sector and boys relative to girls.

[23] present empirical evidence on the deprivation costs of the 2001 to 2002 Argentinean crisis. The selected approach was multidimensional and focused on four aspects of quality of life: labour, assets, education and income. These dimensions were constructed by multivariate data reduction techniques and then aggregated using the Bourguignon and Chakravarty's (2003) axiomatic multidimensional poverty measure. The main findings indicate that the crisis had larger costs on wellbeing dimensions tied to the economic cycle, such as income and labour. Costs were mild on structural aspects of wellbeing, such as assets and education.

### **3. Methodology**

#### **3.1. Study Area**

The area of study for this research is rural and urban SS Nigeria. South-South

geopolitical zone is one of the six geopolitical zones in Nigeria. Secondary data from [24] was used for this study. The sample for the 2013 NDHS was a stratified sample, selected independently in three stages from the sampling frame. Stratification was achieved by separating each state into urban and rural areas. A total number of 1965 women in rural and 1275 in urban SS were covered in this survey.

### 3.2. Analytical Procedure

Descriptive statistics fuzzy set theory and logit regression were used in this study. The descriptive statistics used include percentages, frequency distribution tables, and the mean.

### 3.3. Fuzzy Set Analysis

This was used to estimate the deprivation status of women. The fuzzy set substitutes the characteristic function of a crisp set that assigns a value of 1 or 0. Large values denote high degree of membership [25] [26]. The degree of deprivation is shown by the placement of the individual on the 0 or 1 value or other values in-between. The model is considered as follows:

Assume a population  $A$  of  $n$  individuals,  $A = (a_1, a_2, a_3, \dots, a_n)$ . A fuzzy subset  $B$  includes all individuals with  $a_i \in B$ . The degree of deprivation of the  $i$ th individual ( $i = 1, \dots, n$ ) with respect to a particular attribute  $j$  given that ( $j = 1, \dots, m$ ) is defined as:

$$\mu_\beta |x_j(a_i)| = x_{ij}, 0 \leq x_{ij} \leq 1 \quad (1)$$

where:

$x_{ij} = 1$ ; condition of total lack of welfare attribute (state of deprivation).

$x_{ij} = 0$ ; condition of full possession of welfare attribute.

$0 \leq x_{ij} \leq 1$ ; conditions within the range of lack and full possession.

The variables that define indicators of welfare are either dichotomous or categorical in nature.

#### 3.3.1. Dichotomous Variables

Dichotomous variables are answered by either “Yes” or “No”; with the “yes” being a state of well being and the No, a state of deprivation. Following [27], from a universal set of  $A$  individuals, we define the membership function of fuzzy subset of  $B$  for the  $i^{\text{th}}$  individual

( $i = 1, \dots, n$ ) that possesses the  $j^{\text{th}}$  welfare attribute ( $j = 1, \dots, m$ ) as:

$$\mu_\beta |x_j(a_i)| = x_{ij}, \quad (2)$$

$x_j(a_i)$  is the  $m$  order of welfare attributes that will result in a state of welfare if totally or partially owned by the  $a_i^{\text{th}}$  household.

$x_{ij} = 1$ , if the  $a_i^{\text{th}}$  woman possess the  $j^{\text{th}}$  attribute (that is she completely has the welfare attribute).

$x_{ij} = 0$  if the  $a_i^{\text{th}}$  woman does not possess the welfare attribute.

### 3.3.2. Categorical Variables

Categorical variables present themselves in a range of values, rather than just two values. Expressing the membership function for these variables take the form:

$$\mu_{\beta} |x_j(a_i)| = x_{ij} \quad (3)$$

In a general case of  $C = C_{\min}$  to  $C_{\max}$  ordered categories of some welfare indicator with  $C_{\min}$  being the highest level of deprivation and  $C_{\max}$  represents the lowest level of deprivation. If the modalities are arranged in decreasing order of deprivation attainment from  $C_{\min}$  to  $C_{\max}$ ,  $C_i$  values represent the intermediate values within the two thresholds, which depicts the position of the  $i^{\text{th}}$  individual within the modalities.

$$x_{ij} = C_{\min} - C_i / C_{\min} - C_{\max}, \text{ if } C_{\max} \leq C_{ij} \leq C_{\min} \quad (4)$$

so that  $0 \leq x_{ij} \leq 1$

In specifying the well-being index for the population of women, following [7] [28] it is expressed as:

$$\mu_{\beta}(a_i) = \sum_{j=1}^n x_{ij} w_j | \sum_{j=1}^m w_j \quad (5)$$

where  $w_j$  is the weight given to the  $j^{\text{th}}$  attribute.  $\mu_{\beta}(a_i)$  measures the degree of well-being of the  $i^{\text{th}}$  individual as a weighting function of  $m$  attributes/indicators.

**Table 1** shows Selected Dimensions and Methods of Evaluation that were used for this study.

## 4. Results and Discussion

In **Table 2**, the highest percentage (46.90) of women in rural SS are within the age range of 35 - 49 while in the urban area 40.93% of women fall within the age range of 15 - 24. The mean age of women in rural SS is 34 years while in urban SS is 28 years. This implies that we have older women in rural area as compared to the urban area. Younger women tend to be in the urban areas because they attend colleges and universities here and they tend to get white collar jobs too. The highest percentage of women in rural SS have complete primary education (28.80%) while in the urban SS a higher percentage has complete secondary (33.61%), implying that urban women are more educated. In rural SS women have a mean household size of 6 while in the urban area women have a mean household size of 5. Women in urban areas know the implication of having a large household size and since they are educated, have collar jobs they do not have time to take care of many children while women in rural area can afford to have medium to large household size since they can use this as family labour and they can afford to carry their children to the farm and take care of them. Most of the women in rural and urban SS are employed (83.96%, 63.585%). There are more employed women in rural SS than in urban SS because most of the women in urban SS are young and are probably in school or learning a trade.

In **Table 3**, 14.03% and 13.05% of rural and urban women in SS receive antenatal care from skilled attendants. Also, only 22.32% and 25.07% of women

**Table 1.** Selected dimensions and method of evaluation.

Indicator	Selected criteria	Deprivation
<b>Housing and Sanitation</b>		
Source of drinking water	Pipe borne water and treated 1 = improved, 0 = otherwise	0 = non deprived, 1 = deprived
Toilet facility	1 = improved, 0 = otherwise	0 = non deprived, 1 = deprived
Main floor material	1 = improved, 0 = otherwise	0 = non deprived, 1 = deprived
Main wall material	1 = use of finished material, 0 = otherwise	0 = non deprived, 1 = deprived
Main roof material	1 = use of finished product, 0 = otherwise	0 = non deprived, 1 = deprived
<b>Autonomy</b>		
Final say on travel to market and outside village/community	Husbands take decisions alone = 4	0 = non deprived, 1 = deprived
	Women and husband take decision = 3	
	Women take decisions with another person = 2	
	Women take decisions alone = 1	
Final say on own health	Same as above	0 = non deprived, 1 = deprived
Final say on visit to friends and relatives	Same as above	0 = non deprived, 1 = deprived
Final say on making large household purchases	Same as above	0 = non deprived, 1 = deprived
Final say on money spending.	Same as above	0 = non deprived, 1 = deprived
Final say on husband's earnings	Same as above	0 = non deprived, 1 = deprived
<b>Health and Nutrition</b>		
Place of delivery	Deliver in health facility = 1.0 = otherwise	0 = non deprived, 1 = deprived
Antenatal care	Receive ante natal care from skilled attendant = 1, 0 = otherwise	0 = non deprived, 1 = deprived
Skilled attendant during delivery	Attended to by skilled attendant during delivery = 1, 0 = otherwise	0 = non deprived, 1 = deprived
Body Mass Index (BMI)	18.5kg/m <sup>2</sup> to 25.0kg/m <sup>2</sup> = 1 <18.5kg/m <sup>2</sup> and >25.0kg/m <sup>2</sup> = 0	0 = non deprived, 1 = deprived
<b>Education</b>		
level of educational attainment	woman with no formal education = 6	0 = non deprived, 1 = deprived
	woman with incomplete primary education = 5	
	woman with complete primary education = 4	
	woman with incomplete secondary education = 3	
	woman with complete secondary education = 2	
Literacy	woman with higher education = 1	0 = non deprived, 1 = deprived
	Women who can read part of a sentence or a whole sentence will be regarded as literate. A value of 1 will be assigned, 0 = otherwise	
Employment status Employment type	Employment	0 = non deprived, 1 = deprived
	Currently employed = 1, 0 = otherwise	
	Currently employed = 1, 0 = otherwise	
	Unemployed = 4	
Employment status Employment type	Skilled and Unskilled manual employment = 3	0 = non deprived, 1 = deprived
	Agricultural and allied sector = 2	
	Non Agriculture = 1	

Source: Author's computation from the 2013 NDHS data.

**Table 2.** Distribution of women according to their Socio economic characteristics in rural and urban South-South Nigeria.

Variable	Rural		Urban	
	Frequency	%	Frequency	%
<b>Age</b>				
15 - 24	397	15.69	314	15.23
25 - 34	947	37.42	821	39.82
35 - 49	1187	46.90	927	44.96
Mean	34		28	
Standard deviation	8		10	
<b>Educational attainment</b>				
No education	261	10.31	56	2.72
Incomplete primary	261	10.31	111	5.38
Complete primary	729	28.80	248	12.03
Incomplete secondary	558	22.05	566	27.45
Complete secondary	544	21.49	693	33.61
Higher	178	7.03	388	18.82
<b>Household size</b>				
1 - 5	1387	54.80	1225	59.41
6 - 10	1027	40.58	737	35.74
>10	117	4.62	100	4.85
Mean	6		5	
Standard Deviation	3		3	
<b>Marital status</b>				
Single	300	11.85	250	12.12
Married	2231	88.15	1812	87.88
<b>Occupation type</b>				
Unemployed	406	16.04	751	36.42
Skilled and Unskilled	120	4.74	123	5.97
Agriculture and allied	764	30.19	159	7.71
Services	1241	49.03	1029	49.90
Total	2531	100	2062	100

Source: Authors' computation from the 2013 NDHS data.

deliver in health facilities in rural and urban SS. Only 2.21% and 22.60% of women were assisted by skilled health personnel during delivery. In spite of government efforts to achieve the SDGs, rural women largely patronise traditional birth attendants and some even prefer to deliver at home without assistance. Little wonder why maternal mortality is on the increase in the rural areas. Also, the table shows that (43.07% and 46.61%) of women have normal body mass index.

**Table 3.** Distribution of rural women by their health and nutrition status.

Category	Rural		Urban	
	Frequency	Per cent	Frequency	Percent
<b>Antenatal care</b>				
Skilled Attendant	355	14.03	269	13.05
Non Skilled Attendant	2176	85.97	1793	86.95
<b>Assistance during delivery</b>				
Skilled Attendant	56	2.21	466	22.60
Non Skilled Attendant	2475	97.79	1596	77.40
<b>Place of delivery</b>				
Health facility	565	22.32	517	25.07
Non health facility	1966	77.68	1545	74.93
<b>Body Mass Index</b>				
Normal	1090	43.07	961	46.61
Abnormal (Thin and Obese)	1441	56.93	1101	53.39

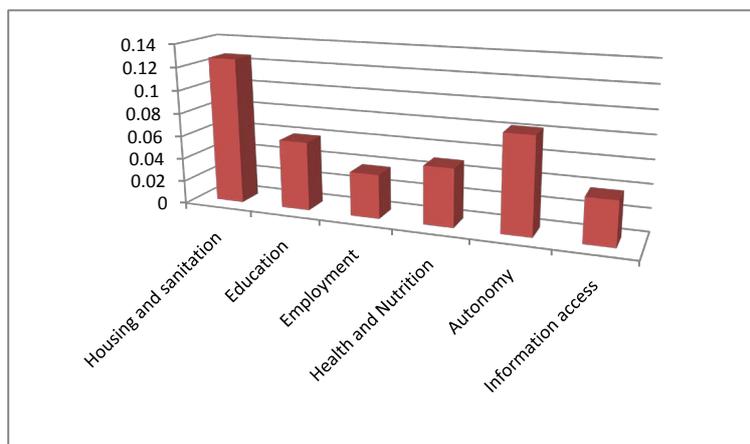
Source: Authors' computation from the 2013 NDHS data.

**Table 4** shows that in rural SS 34.69% women have autonomy on how they spend their money compared to 21.44% in urban SS. With regards to health 9.25% of women in rural SS have autonomy while 6.06% have autonomy in urban SS.

### Multidimensional Welfare Deprivation of Women

**Table 5** shows the distribution of rural women based on their Deprivation status. The Deprivation Index (DI) for rural women ranges from 0.05 to 0.89 with a mean value of 0.39 in rural SS and in urban SS the DI ranges from 0.19 to 0.96 with a mean of 0.29. Most of the women had their DI between 0.00 - 0.90 in both rural and urban SS.

The contribution of each welfare dimension to women's deprivation is presented in **Figure 1** and **Figure 2**. Among the six dimensions considered in rural SS, housing and sanitation had the highest absolute and relative contributions of 0.13% and 32.03% and thus contributes the least to deprivation. This is followed by autonomy with 0.08% and 20.99%. This means that rural women are better off in these dimensions than others. The high relative contribution of housing is expected since most of them live in the same house with their spouses. The houses were provided by the joint effort of the household. It is also worthy of note that autonomy has a high relative contribution. The high relative contribution of autonomy underscores the point that power relations within the household is crucial and ability to participate in decision making particularly with respect to self is important for women's welfare. In urban SS, housing and sanitation had the highest absolute and relative contributions of 0.09% and 32.74%



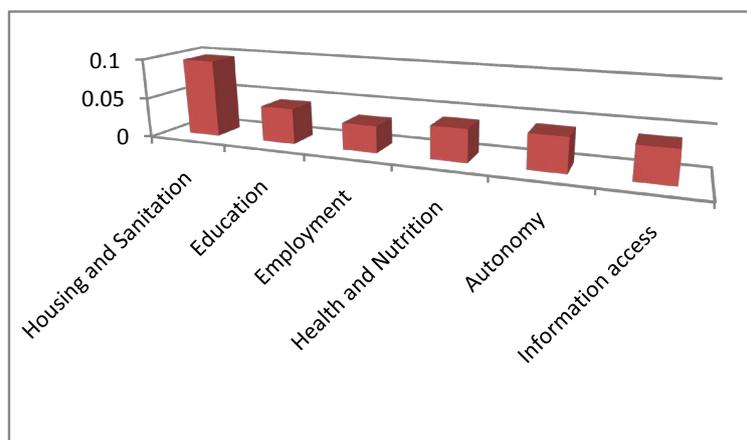
**Figure 1.** Contribution of Dimensions to deprivation in rural South-South. Source: Authors' computations from the 2013 DHS data.

**Table 4.** Distribution of rural women by autonomy.

Category	Rural		Urban	
	Frequency	%	Frequency	%
<b>Decision maker on spending money</b>				
Respondents alone	878	34.69	442	21.44
Respondents and Partner	522	20.62	283	13.72
Husband/partner alone	1125	44.45	1337	64.84
Someone else and others	6	0.24	0	0.00
<b>Decision maker on own health</b>				
Respondents alone	234	9.25	125	6.06
Respondents and Partner	994	39.27	608	29.49
Husband/partner alone	1285	50.77	1326	64.31
Someone else and others	18	0.71	3	0.15
<b>Decision on large household purchases</b>				
Respondents alone	374	14.78	125	6.06
Respondents and Partner	1101	43.50	608	29.49
Husband/partner alone	1041	41.13	1326	64.31
Someone else and others	15	0.59	3	0.15
<b>Decision on visit to family/relatives</b>				
Respondents alone	268	10.59	112	5.43
Respondents and Partner	1204	47.57	679	32.93
Husband/partner alone	1045	41.29	1263	61.25
Someone else and others	14	0.54	8	0.39

Source: Authors' computation from the 2013 NDHS data.

and thus contributes the least to deprivation. This is followed by education with 0.04% and 14.96%. This means that urban women are better off in these dimensions than others.



**Figure 2.** Contribution of Dimensions to deprivation in urban SS. Source: Authors' computation from the 2013 NDHS data.

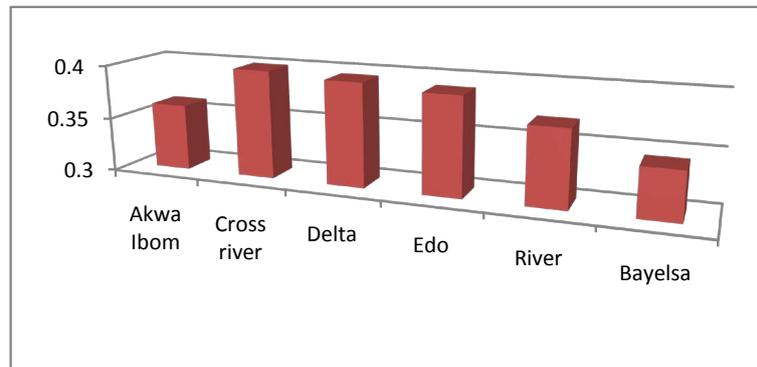
**Table 5.** Distribution of rural women by their deprivation index.

Deprivation Index	Rural		Urban	
	Frequency	%	Frequency	%
0.0000 - 0.1000	24	0.95	157	7.61
0.1001 - 0.2000	212	8.38	537	26.04
0.2001 - 0.3000	534	21.10	601	29.15
0.3001 - 0.4000	600	23.71	324	15.71
0.4001 - 0.5000	536	21.18	168	8.15
0.5001 - 0.6000	346	13.67	97	4.70
0.6001 - 0.7000	185	7.31	90	4.36
0.7001 - 0.8000	82	3.24	67	3.25
0.8001 - 0.9000	12	0.47	16	0.78
0.9001 - 1.0000	0	0.00	5	0.24
Total	2531	100	2062	100

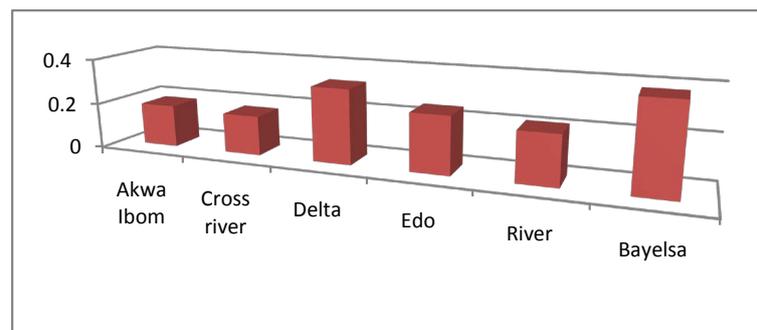
Source: Authors' computation from the 2013 NDHS data.

The decompositions across states as shown in **Figure 3** and **Figure 4** in rural SS reveal that Cross river and Delta are the most deprived states while in urban SS Bayelsa and Delta are the most deprived.

In ascending order of contribution, the six dimensions considered are arranged as follows in rural SS: employment, information access, health and nutrition, education, autonomy, housing and sanitation. While in the urban in ascending order the dimensions are arranged thus employment, health and nutrition, information access, autonomy, education, housing and sanitation. In view of the high deprivation index of women in general, these dimensions need to be improved on particularly information access, education, health and nutrition whose contributions to deprivation are high. The Levene's test shows that the variances of multidimensional well-being indices across dimensions are significantly different ( $p = 0.0000$ ).



**Figure 3.** Multidimensional Wellbeing Decomposition across States in rural SS. Source: Authors' computation from the 2013 NDHS data.



**Figure 4.** Multidimensional Wellbeing Decomposition across States in urban SS. Source: Authors' computation from the 2013 NDHS data.

## 5. Conclusion

The Deprivation Index (DI) for rural women ranges from 0.05 to 0.89 with a mean value of 0.39 in rural SS while in urban SS the DI ranges from 0.19 to 0.96 with a mean of 0.29. Thus, women in rural SS (DI = 0.39) are more deprived than women in urban SS (DI = 0.29).

## 6. Recommendation

Interventions are needed in the areas of autonomy, education, housing and sanitation characteristics. Improvement in girl child education will enhance their earning power and reduce their level of education in urban SS. Concerted efforts are required from non-governmental organisations and local institutions to give women more voice and opportunities to participate in decision making by encouraging them to join peer groups.

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