# Classification of households into food security status in the north-central Nigeria: An application of RASCH measurement model

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## Abstract

The main objective of the study was to classify households in the North-Central Nigeria (NCN) into food security status based on certain demographical characteristics with Rasch model. Data for the study were generated from a cross-sectional survey of 396 household heads from the two selected states (Kogi and Kwara) in October 2006 to January 2007. The results of the analysis show that, only 23.7 percent households are food secure (FS) in the study area. Further analysis revealed that 15.5 percent and 37.4 percent adults and children are food secure. While 18 percent households are FS in the urban areas, only 13.7percent are FS in the rural areas of the NCN. In addition, female-headed households are found as been FS (21.9 percent) compare to 14 percent male-headed. There appears to be an inverse relationship between household size and food security in the study area. Households with a small size of $\leq$ 3 members are also more FS (25 percent) compared to 15.1percent by those with a larger size of 8-11 members. However, contrary to the adults' food security status in the NCN, the proportions of children who are FS in both rural and urban are nearly the same. In all the cases, there is a direct relationship between employment status of household heads and the household food security status. To transit from food insecure to food secure status, it is important to pursue policy on birth control and gender empowerments in the study area with the mean household size of 5.89 and standard deviation of 2.24.