Subject: Calculating asset inequality indices
Posted by DHS user on Thu, 14 Feb 2013 15:51:24 GMT
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I'm interested in calculating asset inequality indices with the DHS, and am writing regarding the interpretation of the wealth factor scores (not the five-category wealth index). I wanted to confirm that this variable can be interpreted as the level of assets that a household possess (i.e. a household that scores a 1.20 has 20% more assets than one that scores a 1.0)? I also wanted to inquire as to whether (a) these factor scores took into account household size and (b) if different factor analyses were run for each year (ie. a separate factor analysis for 2005 and 2011), or if the assets were weighted the same across time?

Subject: Re: Calculating asset inequality indices
Posted by Trevor-DHS on Thu, 14 Feb 2013 15:56:26 GMT
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Here is a publication that explains how the DHS Wealth Index is calculated

In answer to your questions:

1. The wealth index is the first principal component of a combined set of indicator variables so calculated that it has a mean of zero and a standard deviation of one. Thus a score of 1.20 represents a z-score 20% greater than a z-score of 1.00, not 20% more assets (indeed the number of each type of asset and its value is not used for most of the indicator variables-e.g. type of water supply is used but not number of bathrooms).

2. Household size is taken into account by the indicator of number of persons per sleeping room but not in the other indicators. Unlike a consumption expenditure index, which needs to be divided among household residents (or adult equivalent household members), most of the indicators in the wealth index pertain to all members of the household (such as type of flooring, presence of electricity, etc.). The one person who may not share entirely in the wealth of the household is the live-in domestic servant but we have no way of estimating her/his economic status separately of that of the household. Tabulations for interviewed female domestic servants on other variables, such as use of health services, indicate that they are similar to other interviewed women in the third quintile.

3. Each survey has its own wealth index with a mean of zero and a standard deviation of one and so the same score means different levels of poverty between surveys. We are working on a procedure to standardize the wealth indexes to a baseline index similar to that of a price index.
I hope this is helpful.

-- provided by Shea Rutstein