## Subject: Using separate wealth index
Posted by gebretsh@gmail.com on Sat, 27 May 2023 16:47:32 GMT

Dear Dr tom and other experts in the DHS,
As usual, I heartily appreciate your important assistance in the correct analysis of DHS.

I want to do a regression for urban and rural areas separately (urban only and rural only). In urban areas, almost all people are in the fourth or fifth wealth quintile in the national wealth index.
My questions are:
1) May I convert the wealth quintile into a decile to be able to get samples for all categories of wealth?
If yes, would you please show me how I do this? I suspect that I would use the raw score to get deciles, but I would appreciate if I got the standard procedure to get deciles instead of quintiles.
2) May I instead use the wealth quintile available for urban and rural areas separately (v190a)? or v191a? If yes, how do I do this?
3) v190a and v191a are not available for 20002011 EDHS; they are available only for 2016 EDHS. Is it possible for me to create variables retrospectively in the same way DHS does for the 2016 EDHS so that my wealth variables would be comparable?
Thank you so much for your help.

## Subject: Re: Using separate wealth index
Posted by Bridgette-DHS on Tue, 30 May 2023 20:02:46 GMT

Following is a response from DHS staff member, Tom Pullum:

At the bottom of this response, I will give lines to construct the wealth quintiles from the continuous wealth index. It is set up for a Nigeria survey--change the input file name for the Ethiopia 2016 survey or another survey. This program runs on the HR file. The quintiles are the same for everyone in the household, so when you have them in the HR file you can transfer them to the PR file by merging with hv001 hv002 or to the IR/BR/KR files by merging with v001 v002 or to the MR file by merging with mv001 mv002.

To construct wealth deciles you would use 10 instead of 5 in the "xtile" line.

You can read more about the urban/rural version of the wealth index in working paper 60 by Shea Rutstein: https://dhsprogram.com/pubs/pdf/wp60/wp60.pdf.

If you have hv271 and want to construct hv271a, the following lines will approximately accomplish this, using the PR file. The last line only works if hv271a is already in the data, and for such a file it confirms that the procedure returns a variable that is almost perfectly correlated with hv271a. It does not have the same mean and standard deviation as the official version of hv271a but it will produce the same quintiles.

summarize hv271 if hv025==1 [iweight=hv005/1000000]

scalar mean1=r(mean)

scalar sd1=r(sd)


summarize hv271 if hv025==2 [iweight=hv005/1000000]

scalar mean2=r(mean)

scalar sd2=r(sd)


gen     hv271a_test=(hv271-mean1)/sd1 if hv025==1

replace hv271a_test=(hv271-mean2)/sd2 if hv025==2


correlate hv271a_test hv271a


The easiest way to do the urban/rural versions of the quintiles, hv270a, once you have hv271, would be to replace the "xtile" line with these two lines:


xtile hv270_urban=hv271a if hv025==1 [pweight=pwt], nquantiles(5)

xtile hv270_rural=hv271a if hv025==2 [pweight=pwt], nquantiles(5)


For checking, you will get very close to a uniform distribution of quintiles within categories of hv025 if you enter the following line in the PR file:


tab hv270a hv025 [iweight=hv005/1000000] if hv102==1


I have to mention that in some surveys the commands given above and the routine given below will not exactly match the DHS wealth quintiles. I personally would not worry about that. I don't have a program to deal with those exceptions. It is often difficult, using the standard recode files,

to reproduce exactly some of the variables calculated during the original data processing.

If you want to include the urban/rural version in a regression in Stata, just put i.hv270a, or i.v190a, on the right hand side of the regression.  I would recommend always including hv025 or v025 whenever you include hv270a or v190a. (You don't need "i." with a variable that has only two categories.)

Here is the basic procedure to get the quintiles from the continuous index:

```
* Need a path to a workspace folder

cd e:\DHS\programs\WEALTH


* SIMPLE STATA CODE TO CONSTRUCT WEALTH QUINTILES THAT ALMOST MATCH DHS


set more off

use "C:\Users\26216\ICF\Analysis - Shared Resources\Data\DHSdata\NGHR7AFL.DTA" , clear


keep hv001 hv002 hv005 hv012 hv013 hv270 hv271


gen mem = hv012

replace mem = hv013 if mem == 0

gen pwt=mem*hv005

gen wt=pwt/1000000

xtile hv270_test1=hv271 [pweight=pwt], nquantiles(5)

tab hv270 hv270_test1 [iweight=wt]
```