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Subject: Replicate Wealth Index India

Posted by [rafael](#) on Tue, 04 Jun 2013 10:03:38 GMT

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Hi!

I am working with the indian NFHS-3 data. I intend to replicate the calculation of the wealth index in another dataset. In order to do so, I am first trying to understand how the index was calculated in the DHS data.

I found the list of variables used in the process in the report on the NFHS-3 (p.43) and I am calculating the principal components analysis in Stata.

I am using the following code and the varlist below. For categorical variables I generated dummies first.

```
# Principal component analysis:  
pca varlist, components(1)
```

```
# Extract first component  
Predict index, score
```

Doing so I get an index that is close to the original index (hv271). But in some cases the households are not classified in the same order. For example if I classify households in wealth index quintiles according to the original index and the one I reconstructed and then compare results, I end up with a diverging classification in about 4% of all cases.

Have I missed a variable or is there an option of pca that I should have set?

If anyone has managed to replicate the index exactly I would be very glad for any input!

Many thanks and regards  
Rafael

Varlist:

```
hv206 electricity  
sh56a house has any windows  
sh56b house has windows with glass  
sh56c house has windows with screens  
sh56d house has windows with curtains or shutters  
hv201 source of drinking water  
hv205 type of toilet facility  
hv213 main floor material  
hv215 main roof material  
hv214 main wall [exterior] material  
hv226 type of cooking fuel
```

sh58 owns this or any other house  
memsleep number of sleeping rooms per household member (hv126/hv009)  
hv247 owns a bank account or post office account  
sh47b mattress  
sh47c pressure cooker  
sh47d chair  
sh47e cot/bed  
sh47f table  
sh47g electric fan  
hv207 radio  
sh47i b&w television  
sh47j colour television  
sh47k sewing machine  
hv243a mobile telephone  
hv221 telephone (non-mobile)  
sh47n computer  
hv209 refrigerator  
hv243b watch  
hv210 bicycle  
hv211 motorcycle/scooter  
hv243c animal-drawn cart  
hv212 car  
sh47u water pump  
sh47v thresher  
sh47w tractor

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