Subject: Problem with recreating Asset quintiles
Posted by Preksha Mishra on Wed, 08 Jun 2022 18:33:50 GMT
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Hi, I am attempting to recreate the Asset Quintiles for India(2015-16) as provided in the data basis cut-off points derived from the wealth index factor score (hv271 in PR file). I haves subset for de cure population before creation of quintiles.

My issue is that finding quintile cut-off points in R is not giving me the same Asset quintiles for roughly 780 observations. I am assuming that this is because my cut-off points are incorrect.

a) Can the factor score given in the dataset directly be used to make quintiles weighted by hv005/100000 (Wt_nat) in the PR file? If not then how to go about it?

b) If (a) is correct, then what could be the reason why my cut off points differ from the one used to the construct the quintile?

This is what I got using the following:

```
check_bins$quintile2 <- with(check_bins, cut(hv271,
                        breaks= wtd.quantile (hv271, q=seq(0,1, by=0.2), na.rm = FALSE, weight =
Wt_nat),
                        include.lowest=TRUE, labels = c(1,2,3,4,5)))
```

20% -0.92065
40% -0.26808
60%   0.38776
80%.   1.06845

However, this is what was given in the wealth index excel file under Combined national wealth score tab. Are these the cut-off points?

20% -.9294019
40% -.2665299
60% .3948751
80% 1.0727570

I would really appreciate any help in this regard!

Subject: Re: Problem with recreating Asset quintiles
Posted by Janet-DHS on Thu, 09 Jun 2022 12:36:46 GMT
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Following is a response from DHS Research & Data Analysis Director, Tom Pullum:

Here is the Stata code to construct wealth quintiles as "hv270_test", which you can compare with hv270. This can be applied to any HR file. (HR, not PR.) It should be easy enough to translate into R.

```
use "xxHRxxFL.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_test=hv271 [pweight=pwt], nquantiles(5)
tab hv270 hv270_test [iweight=wt]
```

Subject: Re: Problem with recreating Asset quintiles
Posted by Preksha Mishra on Fri, 10 Jun 2022 06:07:48 GMT
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Hi Janet,

Thank you for your swift response. I tried the set of commands you had shared on Stata. However, I still get different quintiles (my assumption is that the cut off points for quintiles are different again).

Please find attached my result by using the HR file. Also, since the wealth quintiles were ass per de jury members, I wanted to know why we are considering defect members as well if there were no dejure members in the household. This is because as per the report, each quintile has 20% of the population (dejure) in each quintile.

I will much appreciate your help in resolving this.

Subject: Re: Problem with recreating Asset quintiles
Posted by Preksha Mishra on Fri, 10 Jun 2022 06:30:05 GMT
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Please find here the attached screenshot.

File Attachments
1) asset.png, downloaded 447 times

Subject: Re: Problem with recreating Asset quintiles
Posted by Janet-DHS on Mon, 13 Jun 2022 15:11:12 GMT

The Stata code I sent you is what DHS uses. There are very few households with no de jure members (372 out of more than 600,000 households in the NFHS-4), but if there are none, then the number of de facto household members (hv013) is used instead. I agree with you that this is an inconsistency, but I expect that it was originally adopted (at least 20 years ago) in order to avoid discarding the household. A few decisions like this are inevitable. If you want to change the procedure for your own analysis, you are certainly free to do so, but that will cause you to have minor deviations from the DHS tables.

In virtually all surveys the weighted number of de jure household members will not be EXACTLY the same in all quintiles, because everyone in the same household must be in the same quintile. It is also possible for multiple households to be tied at the same value of the continuous index (hv270) and this is more likely in large surveys, such as those in India. Finally, it is possible that the weights (hv005) were modified in this survey after the quintiles had been constructed. I cannot provide any other explanation for the differences you are observing.