Subject: Construction of wealth quintiles
Posted by DHS user on Thu, 01 Aug 2019 16:58:09 GMT
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Does DHS apply weights while constructing wealth quintiles? If yes, what weight is used?

I would want to construct deciles rather than quintiles in a consistent way.

Subject: Re: Construction of wealth quintiles
Posted by Bridgette-DHS on Thu, 01 Aug 2019 17:00:38 GMT
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Following is a response from DHS Research & Data Analysis Director, Tom Pullum:

The wealth quintiles can be constructed from the PR file, using hv271 (the continuous wealth index), hv005 (the household weight), and hv102 (de jure residence). The goal is to have an equal number of weighted de-jure individual in the PR file in each quintile. Note that the residence criterion is de jure rather than de facto. For most purposes, DHS uses the de facto criterion. For this variable we use de jure, partly to be consistent (for this index) with MICS, which uses de jure for most purposes.

In Stata, this would mean opening the PR file and running this command:

xtile hv270_test=hv271 [pweight=hv005] if hv102==1, n(5)

To check this, run this line:
tab hv270_test hv270

If you do it the way I just described, you will split households on the boundaries of the quintiles, and that must be avoided. Everyone in the same household should be in the same quintile.

Instead, it is best to work from the HR file and then transfer the values to the PR and other files.

Open the HR file and then run these lines:

gen wt=hv005*hv012
xtile test=hv271 [pweight=wt], n(5)

Then check with this:

tab hv270_test hv270

I just tested this with the latest Angola HR file and I see that four households are misclassified with these lines (out of more than 16,000 households). This may have to do with how ties are handled in Stata, versus how they are handled with SPSS, which I believe was used to calculate

the quintiles for this survey. I would not consider this a problem.

To calculate deciles you would just replace n(5) with n(10) in the xtile command. Then you could merge with other files OR you could identify the numerical values of the five additional cut points and just apply them to the other files.

Subject: Re: Construction of wealth quintiles
Posted by Mukesh on Thu, 19 Jan 2023 12:09:27 GMT
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Dear Tom Pullum,

Following your codes for creating deciles or percentiles

 gen wt=hv005*hv012, xtile test=hv271 [pweight=wt], n(5)
ta hv270 test, missing

In NFHS-5 (India).

I find the results shown in the image below.

Should I drop the missing Observation or use some (interpolation) methods to fill in the missing values?
I want to create deciles and percentiles for analysis

Thank you

File Attachments
1) dhs_wq.png, downloaded 1562 times

Subject: Re: Construction of wealth quintiles
Posted by Bridgette-DHS on Thu, 19 Jan 2023 13:30:29 GMT
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Following is a response from Senior DHS staff member, Tom Pullum:

Here is the Stata code to construct the wealth quintiles, using the HR file:

```
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],m

There are just 5 such cases. They are right on the boundaries between two quintiles and I have no idea why the Stata code doesn't give hv270 exactly for them. But so far as your forum question goes, please check your lines against what I gave above. There may be a typo somewhere in your code.

File Attachments
1) table.jpg, downloaded 1523 times
2) list.jpg, downloaded 1572 times

Subject: Re: Construction of wealth quintiles
Posted by sujata on Sat, 11 Feb 2023 06:50:44 GMT
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Should I use the continuous wealth index (sv270s in PR file) or wealth index factor score (sv271s in PR file) to compute the concentration index? I am doing a state-specific analysis, and my unit of analysis is individual. I guess I should use the wealth index factor score to measure an individual's socioeconomic status. Am I right this way?

Subject: Re: Construction of wealth quintiles
Posted by Bridgette-DHS on Mon, 13 Feb 2023 13:35:29 GMT
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Following is a response from Senior DHS staff member, Tom Pullum:

Yes, I agree that it would be better to use the continuous version of the wealth index for this purpose. It will provide a smoother curve than the quintiles would, and should match what you would get for the quintiles at the four points for 20%, 40%, 60%, and 80%.

Subject: Re: Construction of wealth quintiles
Posted by sujata on Tue, 14 Feb 2023 09:54:52 GMT
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Dear Tom,
Thank you for your reply. Just for more clarification, since the PR file gives information for each

household member. I can use the wealth factor score as it is. I don't need to adjust it for the household size to get results at the individual level.

Subject: Re: Construction of wealth quintiles
Posted by Bridgette-DHS on Tue, 14 Feb 2023 16:08:49 GMT
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Following is a response from Senior DHS staff member, Tom Pullum:

I recommend that you not adjust the wealth quintiles--that will just confuse users. And there is no need for an adjustment based on household size. The information used for the wealth index is household-level, but the quintiles are constructed such that one-fifth of the household population (individuals, not households, as units) is in each quintile. The number of households is not exactly the same in each quintile, mainly because the poorest households tend to have more members. So long as your analysis says how the quintiles are defined, it shouldn't matter whether your units are households or individuals. At least that's how I see it.
