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Subject: Decile Share using Wealth Index Factor by Urban and Rural (Stata)

Posted by [smileyc](#) on Mon, 07 Jul 2014 11:47:21 GMT

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Hi,

I just want to seek your advice whether is it advisable to generate decile shares by urban-rural using the wealth index factor. I have read some concerns of using the wealth index (which is based on household assets that urban households commonly have)

I'm trying to use the xtile decile, please see below my syntax: (also whether my syntax below is correct, appreciate your advice)

```
g residence=1 if hv025==1
replace residence=0 if hv025==2
label define residence 1 "Urban" 0 "Rural"
label values residence residence
xtile decile_urban = hv271 if residence==1 [weight=weight], nq(10)
xtile decile_rural = hv271 if residence==0 [weight=weight], nq(10)
```

Thank you.

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Subject: Re: Decile Share using Wealth Index Factor by Urban and Rural (Stata)

Posted by [Reduced-For\(u\)m](#) on Mon, 07 Jul 2014 17:01:24 GMT

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This will work better if you want just one variable with both deciles in it - that is, you will have one variable that is "wealth decile" that will have different cut-offs for rural/urban:

```
egen wealth_decile = xtile(hv271), by(residence) nq(10)
```

This makes a bit more sense if you want to use the deciles as dummy variables in a regression context, because the code that you have will generate "missing" values for decile\_urban for rural residents (and vice versa).

\*Note: you may need to install the "egenmore" package - type "findit egenmore" in your stata terminal to get a link, or "ssc install egenmore" to directly install that.

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Subject: Re: Decile Share using Wealth Index Factor by Urban and Rural (Stata)

Posted by [smileyc](#) on Tue, 08 Jul 2014 03:41:34 GMT

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Thank you for this very useful information. I have downloaded the egenmore but the syntax does not allow survey weights.

Is there any possible way I can apply survey weights when using egen command?

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Subject: Re: Decile Share using Wealth Index Factor by Urban and Rural (Stata)  
Posted by [Reduced-For\(u\)m](#) on Tue, 08 Jul 2014 04:17:39 GMT

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Well... my bad - a few alternative possibilities:

1 - Use xtile itself (which supports survey weights), doing rural/urban separately, and then generate a new variable that has the decile for both. So:

```
xtile dec_rural = hv271 [pweight = weightvariable] if rural==1, nq(10)
xtile dec_urban = hv271 [pweight = weightvariable] if rural==0, nq(10)
```

```
gen decile = dec_rural
replace decile = dec_urban if rural==0
```

2 - You can use "qreg" - quantile regression - to find the cut-off points, and assign the deciles yourself with a series of "if wealthindx > cut\_a & wealthindex < cut\_b" type commands. I am pretty sure that the qreg command supports weights, but I don't think it supports "svy" (which you wouldn't need - you aren't trying to get standard errors here)..

3 - I believe that in the newer DHS rounds, they have begun to separately compute the wealth index for rural and urban areas. Or better said - I think they try to correct in some way, when they are computing the asset scores, for differences in rural and urban areas, and therefore the wealth deciles could be computed from the aggregate data giving you a single wealth decile that spans rural/urban households, and not from the rural/urban groups separately. I think there was a thread on the change in the asset/wealth index computation, but I don't have it handy.

I think (1) is probably what you want, but I also think it depends on what you want to do with these categories - a case could be made for (3) in some circumstances; (2) is just another way to do (1).

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Subject: Re: Decile Share using Wealth Index Factor by Urban and Rural (Stata)  
Posted by [smileyc](#) on Tue, 08 Jul 2014 15:39:03 GMT

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Hello!

Thank you for your reply and for providing these very useful information.

I appreciate your help. I used option 1. I will also search the thread (as you have mentioned) about the change in the computation of wealth index for better understanding.

You're really great! All the best! :-)

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