Subject: Pooling 3 rounds of DHS Nepal -- weights? Posted by LeahBevis on Tue, 08 Oct 2019 17:38:49 GMT View Forum Message <> Reply to Message

I am working on a project where we pool 3 rounds (2006, 2011, 2016) of Nepal's DHS data in the terai region only, doing analysis in Stata with all observations at once. While I know how to use DHS weights for a single cross-section, I am not fully sure how to adjust the weights, PSU and strata variables in order to have correct SEs in all analysis. Three questions.

1. It looks like I should generate weights in this way, where 2497.704, 2660.37095, and 2773.8584 are the total population of Nepal in each round. (I obtained those populations by first creating wt as below (v005/1000000), then using tab year [iweight=wt].)

gen wt = v005/1000000 replace wt=wt/2770.8256 if year==2006 replace wt=wt/2660.37095 if year==2011 replace wt=wt/2773.8584 if year==2016

After doing this, I find that the weighted-average of my variable wt is 1 in each round. I think this is correct?

2. I am unsure how to change the stratum within Nepal, in part because I'm not clear on the construction of the stratum in each year, and also because I don't know if I would ideally want these stratum to be unique by year or to change by year. Right now, the stratum in the terai range from 9-13 in 2006 and 2011, but from 1-14 in 2016. If stratum should be the SAME in all years, then I need to recode the 2016 stratum to match the previous years. (And I would need to know, from DHS, how to do this so the locations were consistent.) If stratum are supposed to be UNIQUE by year, I simply need to differentiate the numbers 9-13 from each round.

3. Similarly, the primary sampling unit IDs (held in variable v021) changed in 2016. The IDs range up to 7,000 in 2006 and 2011, but stop at 400 in 2016. Similar to the question above, I'm not really sure what the goal is here... do I want PSUs to be unique by round, or the same across rounds? If the same across rounds, I need to know how to recode the 2016 PSUs into the 2006 and 2011 PSUs. (Also, is it a problem that while many PSU IDs are given in both 2006 and 2011, there are also many PSU IDs that are only in 2006, or only in 2011?)

4. And just to be sure, after having created an adjusted PSU var and an adjusted strata var, I believe I use the wt variable defined above, and then run:

svyset v021 [pw=wt], psu(psu\_adjusted) strata(stratum\_adjusted)

Thank you! Leah