
Subject: Re: Calculating fixed and random effects
Posted by [Bridgette-DHS](#) on Mon, 14 May 2018 18:26:01 GMT
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Following is a response from Senior DHS Stata Specialist, Tom Pullum:

DHS always advises that you make three adjustments for the survey design, with `svyset` and `svy` if you are using Stata. In order of importance, these are the sample weights, to eliminate a bias toward the over-sampled strata; an adjustment for the clusters, to account for intra-class correlation within the PSUs or clusters; and an adjustment for stratification. The full `svyset` command is this: `"svyset v001 [pweight=v005], strata(stratmid) singleunit(centered)"`. Where I have put "centered" you could instead put "scaled" or "uncertainty" with little difference. Where I have put `v001` you could put `v021` (usually, `v001=v021`). "stratumid" is `v022` or `v023` in most surveys. There have been many postings about `svyset`.

The position for `v001` within this command, which identifies it as the primary sampling unit, actually specifies that there is to be a random effect for `v001`. You do not need a separate specification of a random effect for clusters.

Because you have only 5 countries, you should have fixed effects, rather than random effects, for countries. On the right hand side of the model you would have something like "i.country", where country takes the values 1, 2, 3, 4, 5, say.

Having said this, I strongly advise against pooling countries this way. It makes much more sense to do a separate analysis for each country and then present the results side by side. If you pool the countries, you will be describing an "average" for the five countries, with complexities about whether the countries are weighted by sample size or population size, etc. Wouldn't be more interesting to do separate analyses and see how they are similar and how they are different. Even within a country, particularly within India, there is huge variation. You can do statistical tests of whether coefficients, means, proportions, etc. in one country are significantly different from the corresponding terms in another country.