
Subject: Districts as cluster-level for multi-level model
Posted by [dgodha](#) on Sun, 23 Feb 2020 10:28:13 GMT
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Hello,

I will appreciate your expert guidance on my query. We usually use 'psu' as the cluster level in DHS data. In my case, the group size is too small if I use 'psu'.

```
Group Variable | #Groups  Minimum  Average  Maximum
psu | 25,063    1      3.1     16
```

Since NFHS-4 is representative at the district level and we have to anyway create a variable for the cluster-weight, I am wondering if it is possible to use district as the cluster-level. I tried changing my weighting command for psu to district but as you can see in the output, I don't get the p-values and CIs.

```
*Rescaling of weights
gen wt=v005/1000000
```

```
*Level 1 weights using scaling method 1: New weights sum to district sample size
gen sqw = wt*wt
egen sumsqw = sum(sqw), by(sdistri)
egen sumw = sum(wt), by(sdistri)
gen pwt11 = wt*sumw/sumsqw
```

```
* Survey setting
gen wt2=1
svyset sdistri, weight(wt2) strata(v023) , singleunit(centered) || _n, weight(pwt11)
```

```
*Output
```

```
*****
```

```
Number of strata = 2,509           Number of obs = 1,538,126
Number of PSUs = 2,509           Population size = 1,438,715
Subpop. no. obs = 78,446
Subpop. size = 73,653.12
Design df = 0
F( 0, 0) = .
Prob > F = .
```

```
Linearized
```

```
 y      Coef.  Std. Err.   t    P>t   [95% Conf. Interval]
_____+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
 _cons  -1.585093 .0192937  -82.16   .           .           .
```

```
sdistri
```

```
var(_cons) .1527032 .0153514           .           .
```

Note: 5 strata omitted because they contain no subpopulation members.

Note: Strata with single sampling unit centered at overall mean.

I am not sure what is going wrong and will appreciate any understanding.

Thank you

Deepali
