Subject: Re: Stata Help

Posted by Bridgette-DHS on Wed, 20 Jan 2016 13:23:51 GMT

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Here is another response from Senior DHS Stata Specialist, Tom Pullum:

You should be able to use weights and clusters with syntax like this: regress y x [pweight=v005], cluster(v001). You cannot make the stratum adjustment if you cannot use svy, but that's all you will lose.

Stratification makes the sample more efficient. If you ignore the strata, the standard errors will tend to be slightly larger than they should be (that is, slightly larger than they would be if you included the strata adjustment). You can check this by running svy for an estimation command which does allow svy, and doing two runs, one with and one without the strata option, and comparing the standard errors, confidence intervals, and p values for the estimates.

Thus, if you ignore strata, the confidence intervals will tend to be a little too wide and the test statistics will tend to be a little too close to zero. That's good--it means your inferences will be a little on the conservative side, similar to having a slightly smaller sample than you actually have. That's preferable to the reverse, having an artificially inflated sample size, which is what happens if you ignore the clusters. Ignoring the cluster adjustment is generally more damaging, in terms of increased risk of Type I error, than ignoring the stratum adjustment.

Using sample weights will make the estimates unbiased. The cluster and stratum adjustments have no impact on bias, i.e. no effect on the estimates themselves, only on their standard errors. In Stata terminology, the cluster and stratum adjustments produce "robust" standard errors.