Subject: Poolled logistic regression
Posted by gwasswa on Wed, 14 Aug 2024 13:37:32 GMT
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Hello there,

Could anyone guide me on how to do this?
I want to estimate a pooled logistic regression of three surveys appended to each other but for one country. Through reading on the existing chats i realise there could be an issue with how to weight the pooled data set. Could anyone advise on how to normalise the weights? One of the chats suggest this as a possible solution. Another question is, since there are three surveys then i would expect to include two dummy variables for two of the three survey years. Is there anything else i have to do to ensure accurate results? I will appreciate your help.

Gabriel

Subject: Re: Poolled logistic regression
Posted by Bridgette-DHS on Thu, 15 Aug 2024 14:02:04 GMT
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Following is a response from Senior DHS staff member, Tom Pullum:

Yes, you need a variable such as survey=1, 2, 3, which I easily constructed during the appending process. In the analysis you can treat "survey" as a categorical predictor or convert it to dummies.

We recommend that you leave the weights as they are. You only need to adjust the weights if you want to construct a pooled estimate of something, for example the median age at first marriage, and I really don't believe such an pooled estimate has any value. The main reason for appending surveys from the same country is to see whether there has been significant CHANGE between surveys, and for that purpose you should leave the weights alone. If you do that, the analysis will weight each survey in proportion to its sample size, and for efficient statistical estimation that's what you want.

Subject: Re: Poolled logistic regression
Posted by gwasswa on Thu, 15 Aug 2024 15:22:34 GMT
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Thanks to you both, Bridgette and Tom.

This is helpful and good to know. just another thing I would like to ask, do I still have to keep using svy:... command in the regression? Many thanks.

Subject: Re: Poolled logistic regression
Posted by Bridgette-DHS on Thu, 15 Aug 2024 17:01:32 GMT
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Following is a response from Senior DHS staff member, Tom Pullum:

Yes, but you need to construct unique cluster ID codes and stratum ID codes for the three surveys, using "egen group". Please look through previous posts for an explanation.

Subject: Re: Poolled logistic regression
Posted by gwasswa on Thu, 15 Aug 2024 18:32:14 GMT
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Thanks Bridgette,

Yes, I will.