Subject: Multilevel Logistic Regression
Posted by phehintee@gmail.com on Wed, 03 Aug 2022 20:49:38 GMT
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I am using the DHS (2015-16) India dataset and employing a multilevel logistic regression approach to estimate the relation between infant and young child feeding practice and individual and cluster level characteristics.

I went through DHS Methodological Report No. 27. The example was given for Zimbabwe, and cluster information is provided in its final report. It was easy to follow there, but in the case of India, there are 601509 clusters (hv022), which is quite impossible for a single researcher to calculate the weight. Again, like in the Zimbabwe case, A3 and A2 Tables are provided in the final report, while I am not able to comprehend which table can be followed in the case of the final report of India.

I need help understanding the procedures using Stata a. I will be grateful if I can get any valuable inputs and clarity from you.

Thanking you in anticipation.

Subject: Re: Multilevel Logistic Regression
Posted by Bridgette-DHS on Thu, 04 Aug 2022 14:59:14 GMT
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Following is a response from DHS Research & Data Analysis Director, Tom Pullum:

The information required to calculate level weights for the NFHS-4 is available on our website: https://github.com/DHSProgram/DHS-Analysis-Code/tree/main/Mu ltilevel_Weights

Subject: Re: Multilevel Logistic Regression
Posted by phehintee@gmail.com on Thu, 04 Aug 2022 15:22:39 GMT
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Thank you for your response

I performed the following with the information provided in the shared link. I want to confirm if I got it right.
*****

* Stage A *** Compile parameters/inputs for Level-weights calculations

```
.  ********************************************************** **********

. * a_c_h completed clusters by strata

. gen a_c_h=.
(94,388 missing values generated)

. quietly levelsof v022, local(lstrata)

. quietly foreach ls of local lstrata {
. tab v021 if v022==`ls', matrow(T)
. scalar stemp=rowsof(T)
. replace a_c_h=stemp if v022==`ls'
. }

. replace a_c_h=stemp if v022==`ls'

 gen DHSwt = v005 / 1000000

 *Step 1. De-normalize the final weight, using approximated normalization factor

. gen d_HH = DHSwt * (249454252/80137279)

.
. gen f = d_HH / ((696232/a_c_h) * (69361.60205/22))

 * Calculating the level-weights based on different values of alpha

. local alphas 0 0.1 .25 .50 .75 0.90 1

. local i = 1
```

Secondly, I do not know how to apply this part, I am using a p-value of 0.05, please how do I apply it

```
* Calculating the level-weights based on different values of alpha

foreach dom of local alphas{
gen wt2_`i' = (A_h/a_c_h)*(f^`dom')
gen wt1_`i' = d_HH/wt2_`i'
local ++i
}
```

Thanks in anticipation of your response

Subject: Re: Multilevel Logistic Regression

Posted by Bridgette-DHS on Fri, 05 Aug 2022 11:34:03 GMT
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Following is another response from DHS Research & Data Analysis Director, Tom Pullum:

We are not able to review what you sent. Unfortunately for DHS, Dr. Elkasabi has just moved from ICF to RTI, and we do not have anyone else on the staff who can answer technical questions about multi-level weights.