Subject: logistic regression
Posted by chichi on Wed, 22 Mar 2017 17:37:02 GMT
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Hello, I am working with Namibian DHS 2013. I want to make a logistic regression and produce Odds ratios. My two variables are "education level" (v106) and " comprehensive knowledge" (comp knowledge_score5). (The data is weighted) I tried the following code:

svy: logistic compknowledge_score5 i.v106 if gender == "women"

Is that code right?

As you can see in my output "no education" is not listed. If my syntax is correct, how can I interpret my output?

I am happy, if someone can help me!

File Attachments
1) Output_logistic.png, downloaded 747 times

Subject: Re: logistic regression
Posted by Bridgette-DHS on Fri, 31 Mar 2017 15:22:27 GMT
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Following is a response from Senior DHS Stata Specialist, Tom Pullum:

When you do a logit (=logistic) regression, Stata expects the dependent or outcome variable to be coded 0 or 1. I don't know quite what your outcome variable looks like, but I don't think it is coded 0 or 1. I think that in your example, Stata has consolidated all values greater than 0 into the "1" category.

Education category 0, which is the lowest numbered code for v106, is the default "reference category" in Stata. The odds ratio for that category is 1. I wish Stata included that category in the output, and gave it a coefficient of 1 and a standard error of 0, to help users with the interpretation. Odds ratios for the other categories are relative to the reference category. That is, whatever your Y is, the odds of Y=1 vs Y=0 is the constant term, .5033758, for cases with v106=0. The odds of Y=1 vs Y=0 is .5033758 times 1.633612, for cases with v106=1. The odds of Y=1 vs Y=0 is .5033758 times 4.190808, for cases with v106=2, etc. Odds ratios (=relative odds) are the odds of Y=1 vs Y=0 in a specific category relative to the odds in the reference category.

However, the main problem here is not with the interpretation but that you can only do a logit regression with a 0/1 outcome.