Subject: Suggestion in categorizing preceding birth interval variable (b11)
Posted by suzzon on Thu, 27 Aug 2015 18:52:49 GMT
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Hello DHS experts,

I am working on the socio-economic inequality of the infant mortality in Bangladesh using data sets of all the BDHS survey from 1993/94 to 2011. I want to use "preceding birth interval" (variable b11) as one of the determinants in my analysis.

In most of the related literatures, I have found that authors excluded the "no preceding births" cases (the missing values of b11) from their analysis/regression models. I have also found a literature where the "no preceding births" cases are added to the highest category of the preceding birth interval variable claiming that both highest category and no preceding births cases have same "biological" meaning. For example, the categories of preceding birth interval variable are coded as (<2 years), (2-3 years) and (4 or more years + "no preceding births").

Excluding the "no preceding births" cases will surely reduce the sample size and I am trying to avoid it. So my question is, is it ok to add the "no preceding births" (the missing values of b11) to highest category of preceding birth interval variable? Or, is it must to exclude the missing values if I want to use preceding birth interval variable in regression analysis? Or, is there any other way to include them in the analysis. Can you suggest me what is/are the appropriate way/s?

Any ideas would be very welcome.

Thanks in advance.

Moin

Note:According to the discussion in the forum, I have already excluded the children born less than a year before the survey as they have not been fully exposed to the risk of infant mortality.

Subject: Re: Suggestion in categorizing preceding birth interval variable (b11)
Posted by Reduced-For(u)m on Thu, 27 Aug 2015 19:37:11 GMT
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This is not so much a DHS question as a general methodological one with no specific answer. You seem to have thought through the options, so I think it is up to you to make a decision on your analysis.

One option you didn't mention was that, since you are using categories of preceding birth intervals (and not a polynomial fit using birth interval as a continuous variable) that you could just include a category for "first born". This would buy you some power in your regressions because you'd have more observations that "nail down the X's" - meaning more information for estimating your covariates, even if you don't use that information to estimate the preceding interval point estimates directly. This would be one option that splits the difference between the previous two.

In my very limited experience, the infant health people I talk to treat first births as their own category because they are biologically different than other births. Also, if there is a long preceding birth interval, it means the mother is fairly old, and the family planning decisions are out of the norm, and so you have fundamentally different kinds of women having first-born babies compared to women having after-long-pause babies, in ways that are partly observable but likely partly unobservable. So I'd urge caution in just lumping them in. That said - if it is a norm in the field, then that is how they do it and they probably know more about infant health than I do.

When all else fails - do it every way and report the different estimates in a robustness table. If the two estimates are way different, something weird is going on, and maybe it has to do with the kinds of households who have long-lay-off babies and the kind that have first babies.

Subject: Re: Suggestion in categorizing preceding birth interval variable (b11)
Posted by suzzon on Sat, 29 Aug 2015 16:55:10 GMT
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Dear Reduced-For(u)m,

Thank you for your reply. Yes, you are absolutely right. I have understood that the question I have raised is a methodological question and not related with the DHS data analysis problem. But nonetheless, your answer gave me some more ways to think about the issue.

Thank you again.

Moin

Subject: Re: Suggestion in categorizing preceding birth interval variable (b11)
Posted by Nfadl on Thu, 14 Feb 2019 22:28:50 GMT
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Dear Suzzon,
I need help in generating birth interval using B11, I want to categorize it into <24 months, => 24 months and no previous birth. But B11 exclude the first birth. Did you find a proper solution for it? I am using sas to analyze Egypt DHS 2014 (child file). I really apreciate your help.
