Subject: Myers blended index
Posted by mona on Wed, 24 Mar 2021 20:14:20 GMT
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Dear DHS colleagues,

I am trying to calculate Myers' blended index of digit preference for a child's reported age in months (variable: hw1) using India KR 2015-2016 data. I came across a stata command (by Germán Rodríguez and T. Pullum) that can calculate the index. However, to compute the index, I am not sure if I should be using v005 / sv005 as frequency weight or not. Can you please review my syntax and help me in correcting the command to calculate the index?

myers hw1 [fw=sv005], range(0 47) months gen(mw)

Also, if I choose to calculate the index without the buil in stata user command, can you please guide me on steps to be followed for calculating the myers' weight? I tried putting something together. Would be grateful if you can review the code below:

```
gen lastdigit = mod(hw1,10)
gen mw = 10
replace mw = hw1+1 if hw1 < 9
replace mw = 19-hw1 if hw1 > 9
replace mw = 29-hw1 if hw1 > 19
replace mw = 39-hw1 if hw1 > 29
replace mw = 49-hw1 if hw1 > 39
replace mw = 59-hw1 if hw1 > 49
replace mw = 0 if hw1 ==60
```

```
gen combow = v005 * mw
```

Thank you,
Mona

Subject: Re: Myers blended index
Posted by Bridgette-DHS on Thu, 25 Mar 2021 12:35:18 GMT
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Following is a response from DHS Research & Data Analysis Director, Tom Pullum:

I am attaching a text file for my Stata program to calculate Myers' Blended Index for data in years. It also calculates an Unblended index, which is the same as the Index of Dissimilarity. It does it with either aggregated data or individual-level data. My old friend German Rodriguez modified it

for his very useful website. I used iweights for the aggregated version and pweights (within svyset) for the individual-level version and mlogit. If you run the program you will see that it gives the same results with both approaches. Most of the time I would recommend the aggregated version, but it is possible to adapt the individual-level version for multivariate use, including covariates, confidence intervals, and statistical tests.

I don't quite understand what kind of heaping you are trying to measure for children age 0-47 months. Children's ages are obtained (or estimated) in different ways, depending on whether they are alive and in the household, or are only identified in the birth histories. Their age is given in completed months in the data file (e.g. with hw1) but that's calculated as the difference between date of interview and date of birth. The household respondents or mothers do not report age in completed months. If they did, wouldn't you expect heaping at multiples of 12 or 6 or possibly 3, rather than multiples of 10 or 5? The Index would have to be modified for 12 units rather than 10. Irregularities in month of birth can be the result of genuine seasonality of births, but there may also be some reporting preference for certain calendar months.

The purpose of the blending in Myers' Blended Index is to compensate for a typical gradient in the shape of the age distribution. Births by month in the past 4 or 5 years do not show much of a gradient. There is some gradient for surviving children, just because of the cumulative effect of mortality. I would probably just use the Index of Dissimilarity or fit a line with regression and add up the absolute deviations from the line.

File Attachments

1) Myerstest_DHS_data_mlogit_do_24Mar2021.txt, downloaded 438 times