
Subject: Calculating Confidence Interval

Posted by [zahrohiana](#) on Fri, 29 Nov 2019 04:29:53 GMT

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Hi there,

I would like to get advice on how to calculate confidence interval using the value that is saved locally. I am currently looking at the inequalities in cesarean section. I am trying to see if there are any differences in cesarean section rates by different place of birth, socioeconomic status, place of residence, region, and maternal education. I am trying to calculate this difference in terms of ratio and difference measures, relative and absolute inequalities respectively. The calculation of rate difference is done, for example by subtracting cesarean section rate of the poorest by the richest, while rate ratio is done by dividing cesarean section rate of the richest by the poorest.

This sounds like a pretty straightforward process, but I am currently having difficulties in producing the 95% confidence interval of the difference and ratio estimates of each inequality measure.

Currently I managed to produce the ratio value by using the following commands on Stata:

```
//RATIO CALCULATION PLACE OF BIRTH
```

```
recode m15 (20/29=0 "public sector") (30/39=1 "private sector") (10/19=2 "home") (96=2 "other")  
(99=3 "missing"), gen(birth_place)
```

```
//Private Facility
```

```
svy: tab birth_place v401 if bidx==1 & b5==1 & birth_place==1, per  
matrix list e(Prop)  
matrix cs_private=e(Prop)  
local cs_private1=cs_private[1,2]  
display `cs_private1'
```

```
//Public Facility
```

```
svy: tab birth_place v401 if bidx==1 & b5==1 & birth_place==0, per  
matrix list e(Prop)  
matrix cs_public=e(Prop)  
local cs_public1=cs_public[1,2]  
display `cs_public1'
```

```
//Ratio
```

```
local ratio_est=`cs_private1' / `cs_public1'  
display `ratio_est'
```

I am aware that we can calculate ratio measure with confidence interval with this command: `rationame: varname/varname`. But this will need to be calculated using a variable name instead of a value name. I am wondering if there is anyway to produce the confidence interval using the value saved locally? Any advice on this?

I am new on Stata and will appreciate any help on this.

Thank you.

Regards,
Rana
