Subject: Re: Using tfr2 to Calculate age specific marital fertility rate
Posted by schoumaker on Wed, 02 Oct 2019 17:04:49 GMT
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Hello,

If I understand correctly what you want to do, you should use

. tabexp v025, rates mina(15) maxa(19)
weight variable is v005
Preparing table of events and exposure for 3 year(s) preceding the survey
Period covered: 8/2013 to 7/2016
Central date is 2015.0982
Number of cases (women): 2335
Number of person-years (weighted): 4482.1265
Number of events (weighted): 318.67191

v025	period	ageg	events	exposure	centry	rate	se_r
urban	0	15	178.119	2852.75	2015.098	.0624375	.0046783
rural	0	15	140.553	1629.376	2015.098	.086262	.0072761

You get the adolescent fertility rate in each place of residence, and you obtain the weighted exposure and weighted number of births.

You can check that the weighted mean of the rates (exposure used as weights) is equal to the rate at the country level : 2852,75*0,0624375+1629,376*0,086262=0,0710984

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period	ageg	events	exposure	centry	rate	se_r
0	15	318.672	4482.126	2015.098	.0710984	.0039828

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In contrast, if you do

tabexp if v025==1, rates
tabexp if v025==2, rates

or

by v025, sort: tabexp, rates

the rates will be the same, but weighted events and exposure will not be the same as in the previous example, because the weights are normalized so that their sum is equal to the sample size. So, doing it separately by place of residence will not allow you to estimate the share of exposure in each place of residence. If sampling weights were all equal to 1, the two approaches would lead to the same results.

Since you mentioned you tried also the following command, I will briefly comment on this.

. tabexp if v012 <=19 & v025 ==1

Here, you are not computing events and exposure beetween 15-19, but among women aged 15-19 at the time of the survey. By default, the minimum age in tabexp and tfr2 will be 15. So, three years before the survey, you will only get events and exposure among women 15-16. So, if you want to work on a specific age group, use minage and maxage options, but do not select people on the age at the time of the survey.

Best,

Bruno