
Subject: Wanted Total Fertility Rate in DHS
Posted by [AbdoulM](#) on Thu, 19 Jun 2014 13:14:30 GMT
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Hello!

I am working on fertility using the DHS data from several african countries
The Total Fertility Rate (TFR) values I computed are exactly the same as in the DHS reports
But when computing the Wanted TFR, the values are not matching the ones published in the reports
The method consist in excluding the unwanted births before using the Schoumaker's stata software module (tfr2)

Find below how I made it
Please help me understand where the differences come from
Thanks,

I use the definition of "wantedness" as given in the "Guide to DHS Statistics" (Page 87, Updated Sept. 2006)

Let's remind that:

- *b3_ is the date of birth in CMC;
- *b5_ is the survival status (1 or 0);
- *b7_ is the age at death, mounth imputed;
- *v613 is the ideal number of children.

A birth is considered wanted if the number of living children at the time of conception of the child i (NLC_i) is less than the ideal number of children (INC), that is: i is wanted if $NLC_i < INC$
The time of conception for a child i is: $dconcep_i = b3_i - 9$

A preceding child (let's say j) is considered living at the time of conception of the child i if:

- **C1) j is born before the date of conception of i, That is: $b3_j < dconcep_i$
- **C2) j is living at the time of the survey, That is: $b5_j == 1$
- **C3) OR j died at or before the date of conception of i, That is: $b3_j + b7_j \leq dconcep_i$

According to these conditions, I create a dummy variable (G) as:

- For every child j preceding i,
- * $G_{ij} = 1$ if {C1 AND (C2 OR C3)}
- *If no, $G_{ij} = 0$

The number of living children at the time of conception of i is computed as $NLC_i = \text{Sum}(G_{ij})$ over j.

For every i, we can now compare NLC_i with the INC

- *If $NLC_i < INC$, then i is wanted
- *If no, i is not wanted

I then recode every b3_i (i=1 to 6) as: recode b3_i (0/21600=0) if $NLC_i > INC$
This is supposed to exclude all the unwanted births when computing the TFR (with the Schoumaker's tfr2)

I am aware that the missing values in Stata can distort the results, so I write the commands accordingly.

Find attached the do-file, it may help understanding the process

Regards,

AbdoulM
University of Geneva

File Attachments

1) [Wanted_TFR.do](#), downloaded 1062 times

Subject: Re: Wanted Total Fertility Rate in DHS
Posted by [Liz-DHS](#) on Tue, 24 Jun 2014 18:32:03 GMT

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Dear User,

We are currently researching your post and will get back to you as soon as we can.

Thank you!

Subject: Re: Wanted Total Fertility Rate in DHS
Posted by [Liz-DHS](#) on Tue, 24 Jun 2014 19:05:14 GMT

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Dear User,

Here is a response from one of our technical experts, Dr. Shea Rutstein:

Here is the STATA instruction given:

A preceding child (let's say j) is considered living at the time of conception of the child i if:

**C1) j is born before the date of conception of i, That is: $b3_j < dconcep_i$

**C2) j is living at the time of the survey, That is: $b5_j == 1$

**C3) OR j died at or before the date of conception of i, That is: $b3_j + b7_j \leq dconcep_i$

But a child who died at or before conception of the next child is dead at the time of conception.

The correct code should be

**C3) OR j died after the date of conception of i, That is: $b3_j + b7_j > dconcep_i$

Shea

Subject: Re: Wanted Total Fertility Rate in DHS
Posted by [AbdoulM](#) on Tue, 24 Jun 2014 22:23:24 GMT

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Liz, Shea,

Thank you very much for this effective answer!

Regards,
AbdoulM

Subject: Re: Wanted Total Fertility Rate in DHS
Posted by [Mercysh](#) on Thu, 31 Aug 2017 14:05:29 GMT
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Do you mind to share your do file for TFR, I see your results are comparable to those published in DHS reports.

Subject: Re: Wanted Total Fertility Rate in DHS
Posted by [Maurel](#) on Mon, 04 Sep 2017 13:20:28 GMT
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Hello!

I am working on the impact of socioeconomic status on fertility trends desired and achieved among Cameroonian women using the DHS surveys of 2004 and 2011. I used the Moumouni's do file to make the corrections as suggested above but I still do not get the same results as DHS. could someone help me find the problem?

thank you!

Subject: Re: Wanted Total Fertility Rate in DHS
Posted by [Liz-DHS](#) on Sun, 10 Sep 2017 17:18:19 GMT
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Dear User,

I think to get any real assistance, you would need to post your code. Other users may be able to look at it and help you troubleshoot. In addition you may want to read the paper by Bruno Schoumaker which may help. It is titled "A Stata module for computing fertility rates and TFRs from birth histories: tfr2"

<https://www.demographic-research.org/volumes/vol28/38/>

Thank you!

Subject: Re: Wanted Total Fertility Rate in DHS
Posted by [ashwini](#) on Fri, 18 May 2018 05:42:41 GMT
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Hello,

I wanted to compute the Wanted Fertility rate and followed the instruction and the method posted by the one of the user but results are not matching with the report.

Can I get help on this?

These are the steps followed-

A preceding child (let's say j) is considered living at the time of conception of the child i if:

**C1) j is born before the date of conception of i, That is: $b3_j < dconcep_i$

**C2) j is living at the time of the survey, That is: $b5_j == 1$

**C3) OR j died at or before the date of conception of i, That is: $b3_j + b7_j \leq dconcep_i$

But a child who died at or before conception of the next child is dead at the time of conception.

The correct code should be

**C3) OR j died after the date of conception of i, That is: $b3_j + b7_j > dconcep_i$

Thank you.

Subject: Re: Wanted Total Fertility Rate in DHS
Posted by [Liz-DHS](#) on Fri, 25 May 2018 18:58:31 GMT

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A response from Dr. Shea Rutstein:

Quote:

Our code for the wanted TFR table is

```
for ch in REC21_EDT do                                { Births }
  birth = B3;
  if birth in lowcm:higcm then
    agegroup = int( (birth-V011)/60 ) - 2;           { Age group at birth }
    if agegroup in 1:7 then
      chi = 0;
      do i = soccurs( REC21 ) while i > ch by (-1)
        if B5(i) = 1 then
          chi = chi + 1
        else
          deathm = B7(i);
          if !special( B6(i) ) & int( B6(i)/100 ) = 3 then { if age at death in years }
            deathm = B7(i) + 6;                          { assume death occur in the middle }
          endif;
          if B3(i) + deathm >= B3 - 9 then
            chi = chi + 1;
          endif;
        endif;
      enddo;
    if V613 in 0:90 & chi < V613 then
      colt606 = 1;
```

```
        xtab( t606b, rweight )
    endif;
    colt606 = 2;
    xtab( t606b, rweight );
    endif;
    endif;
enddo;
```

Note the highlighted section:

It says add the age at death of a dead child to the date of birth of that child to get the date of death. If that sum (the date of death) is equal to or greater than the date of birth of the next child minus nine months (date of conception) then the child was living at the time of conception. The number of the living children is then compared with the desired number of children and, if less, then the next child was wanted. If the same or higher than the desired number, then the next child was not wanted at that time. The division into wanted-unwanted is done for all children born in the time period for the fertility rates.

So the user is correct except for children who died in the same month as the conception. These children are considered as living at the time of conception since the dates of conception and dates of death are a little fuzzy due to only being precise as to month.

I looked up the Guide to DHS Statistics which needs to be corrected on page 90:

It says:

1. Wantedness--A birth is considered wanted if the number of living children at the time of conception of the birth is less than the ideal number of children as reported by the respondent. For the calculation of the time of conception, nine months are subtracted from the date of birth. A preceding child is considered living at the time of conception if it was born before the date of conception and a) is living at the time of the survey or b) died at or before the date of conception (calculations based on century-month codes). The date of death of preceding children who died is calculated by adding the age at death in months to the child's birth date in century-month code. If a child's age at death is reported in years, then the child is assumed to have died at ages 6 months higher than the number of years (30 months for children who died at 2 years of age, 42 months for children who died at 3 years of age, etc.).

The highlighted word should be "after" instead of "before". The Guide needs to be corrected. The CSPRO program is OK.

Subject: Re: Wanted Total Fertility Rate in DHS
Posted by [ashwini](#) on Tue, 12 Feb 2019 06:26:04 GMT
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Hello,

Can I get the stata do file for wanted fertility rate?
I have followed the steps but still figures are not matching the report.

Request you to kindly give the stata commands for calculating Wanted fertility rate.

Thank you.

Subject: Re: Wanted Total Fertility Rate in DHS
Posted by [Opeyemi](#) on Thu, 01 Sep 2022 14:25:45 GMT
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Hello Colleagues,

Has anyone successfully been able to replicate the same values of the wanted total fertility rate as the report?

My team and I used all the codes shared here and we are still getting a different result. Kindly help please with you do file so we can see what we are doing wrong.

Subject: Re: Wanted Total Fertility Rate in DHS
Posted by [Janet-DHS](#) on Thu, 08 Sep 2022 19:33:24 GMT
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Following is a response from DHS staff member Tom Pullum:

Please identify a specific survey for which you are not getting a match. What do you mean by "here", as in "all the codes shared here"? Are you referring to our GitHub programs?

Subject: Re: Wanted Total Fertility Rate in DHS
Posted by [sarthak](#) on Tue, 15 Nov 2022 13:36:09 GMT
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I need to calculate Total fertility rates (TFR) using DHS for India. I am using the tfr2 command on Stata. What should be the ideal length (#years which is taken by tfr2 for calculation)? By default stata takes 3 years. What exactly does length mean here?

Stata command:
tfr2, length(?)

Subject: Re: Wanted Total Fertility Rate in DHS

Posted by [Janet-DHS](#) on Wed, 16 Nov 2022 14:07:26 GMT

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Following is a response from DHS staff member Tom Pullum:

On GitHub (<https://github.com/DHSProgram>) we have programs to calculate the TFR, wanted TFR, and all the other fertility rates. Tfr2 works fine but it is not one of our programs. "Length" is the reference interval of time before the interview for the births and exposure. For fertility rates the interval is usually 3 years, less often 5 years.
