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Subject: cannot reproduce TFR using R-package DHS.rates

Posted by [cfq](#) on Mon, 02 Sep 2019 07:27:06 GMT

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Hi all,

I am trying to reproduce the TFR by India states with the data set IAIR23SV. I am using the R-package DHS.rates and the function fert(). But the TFR values I got are very different from the STATcompiler.

My R code:

```
##-----  
# read in DHS data. I resave the SPSS file into csv format, nothing else is changed  
data.full <- read.csv("IAIR23SV.csv", header = TRUE, stringsAsFactors = FALSE, strip.white =  
TRUE)  
  
# clean the column names of the data file to fit to the fert() function  
new.names <- names(data.full)  
new.names <- tolower(new.names)  
new.names <- gsub(".", "_", new.names, fixed = TRUE)  
names(data.full) <- new.names  
  
# get TFR  
library(DHS.rates)  
res.t <- fert(data.full, Indicator = "tfr", JK = "Yes", Class = "v024")  
res.t[order(res.t$Class), ] #show results  
##-----
```

Attached are the screen shot of my R code output, and the STATcompiler. You can see none of the TFR values are the same.

There is no error message when I run my R code. Could any one let me know what cause the difference and how can I change my R code in order to get the same results as the STATcompiler? Thanks!

### File Attachments

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- 1) [R code result\\_TFR\\_IndiaStates.png](#), downloaded 912 times
  - 2) [TFR by India states from STATcompiler.png](#), downloaded 867 times
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Subject: Re: cannot reproduce TFR using R-package DHS.rates

Posted by [cfq](#) on Thu, 05 Sep 2019 07:47:48 GMT

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Appreciated if someone can let me know what went wrong. Thank you all!

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Subject: Re: cannot reproduce TFR using R-package DHS.rates

Posted by [schoumaker](#) on Thu, 05 Sep 2019 07:58:27 GMT

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It seems this is related to the all woman factor, which should be used to inflate exposure when the survey is conducted among ever married women only. This is possible with the R package. I do not see the all woman factor for the states in the data set, but you could compute them yourself (it is explained p 1.40 in the guide to DHS Statistics -

[https://dhsprogram.com/pubs/pdf/DHSG1/Guide\\_to\\_DHS\\_Statistics\\_DHS-7.pdf](https://dhsprogram.com/pubs/pdf/DHSG1/Guide_to_DHS_Statistics_DHS-7.pdf)).

Best,

Bruno

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Subject: Re: cannot reproduce TFR using R-package DHS.rates

Posted by [cfq](#) on Thu, 05 Sep 2019 11:08:21 GMT

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Hi Bruno,

Thanks for the helpful reply! I post my updated R code here:

My R code:

```
##-----
```

```
# read in DHS data. I resave the SPSS file into csv format, nothing else is changed
data.full <- read.csv("IAIR23SV.csv", header = TRUE, stringsAsFactors = FALSE, strip.white = TRUE)
```

```
# clean the column names of the data file to fit to the fert() function
```

```
new.names <- names(data.full)
```

```
new.names <- tolower(new.names)
```

```
new.names <- gsub(".", "_", new.names, fixed = TRUE)
```

```
names(data.full) <- new.names
```

```
# get TFR
```

```
library(DHS.rates)
```

```
res.t <- fert(data.full, Indicator = "tfr", JK = "Yes", Class = "v024",
```

```
      # this is the new line to indicate the data is for ever-married women and the
adjustment vector name is awfactr
```

```
      EverMW = "Yes", AWFact = "awfactr")
```

```
res.t[order(res.t$Class), ] #show results
```

```
##-----
```

Unfortunately, the awfactr (all-women factor for region) is empty. But otherwise it should be able to reproduce the results. Thanks!

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Subject: Re: cannot reproduce TFR using R-package DHS.rates

Posted by [cfq](#) on Thu, 05 Sep 2019 14:04:39 GMT

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I am able to recompute the all-women factors by region from the PR file after all. The pdf that Bruno shared is very useful.

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