
Subject: Re: Sex ratio at birth using IR file , India, NFHS-5
Posted by [Bridgette-DHS](#) on Tue, 07 Feb 2023 12:43:42 GMT
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Following is a response from Senior DHS staff member, Tom Pullum:

I had hoped that you would adapt the NMR program for districts. However, Here is a Stata program to calculate the SRB in all districts. It can be modified for other subpopulations. It uses both definitions of the sex ratio.

- * Program to produce the sex ratio at birth for districts in the India NFHS-5 survey.
- * Can be adapted for subpopulations in any DHS survey.

- * Two definitions of the sex ratio are used.

- * The time interval is the past five years, all births in the KR file, except those
- * in the month of interview.

- * The program provides the lower and upper ends of 95% confidence intervals.
- * The intervals are wide.
- * The estimates use svy, including subpop (within the state).
- * Bayesian procedures would reduce the confidence intervals and move the estimates
- * toward the state value

- * The results are saved into the workfile and then the workfile is reduced
- * to just the saved results.

* specify a workspace
cd e:\DHS\DHS_data\scratch

use "...IAKR7DFL.DTA"
keep v001 v002 v003 v005 v008 v023 v024 v025 sdist b4

* Construct binary variable m_per_f
gen m_per_f=0
replace m_per_f=1 if b4==1

* Sex ratio defined as males per 100 females; do not construct until end
* m_per_100f

* Sex ratio defined as females per 1000 males; do not construct until end
* f_per_1000m

* for testing; comment out the next line for a national run
keep if v024==24

```
save IAKR7Dtemp.dta, replace
```

```
levelsof v024, local(lstates)  
foreach ls of local lstates {  
  use IAKR7Dtemp.dta, clear  
  keep if v024==`ls'
```

```
* Trick: use this file to save the results
```

```
gen vstate=`ls'  
gen vdist=.  
gen vb=.  
gen vL=.  
gen vU=.  
gen vcases=.
```

```
svyset v001 [pweight=v005], strata(v023) singleunit(centered)
```

```
* First do the state estimate
```

```
svy: logit m_per_f  
matrix T=r(table)  
replace vb=T[1,1] if _n==1  
replace vL=T[5,1] if _n==1  
replace vU=T[6,1] if _n==1  
replace vcases=e(N) if _n==1
```

```
* Now loop through all the districts in this state
```

```
scalar sline=2  
levelsof sdist, local(ldistricts)  
quietly foreach ld of local ldistricts {
```

```
* Construct a variable for subpop to select the district
```

```
gen select_dist=1 if sdist==`ld'
```

```
svy, subpop(select_dist): logit m_per_f
```

```
matrix T=r(table)  
replace vdist=`ld' if _n==sline  
replace vb=T[1,1] if _n==sline  
replace vL=T[5,1] if _n==sline  
replace vU=T[6,1] if _n==sline  
replace vcases=e(N) if _n==sline  
drop select_dist  
scalar sline=sline+1  
}
```

```
* Finished with a state; save the results for this state in a data file
```

```
drop if vb==.  
keep vstate vdist vb vL vU vcases
```

```
rename v* *
```

```
* Re-attach the labels for state and district; must confirm the label names
```

```
label values state V024
```

```
label values dist SDIST
```

```
gen P_m_per_100f=100*exp(b)
```

```
gen L_m_per_100f=100*exp(L)
```

```
gen U_m_per_100f=100*exp(U)
```

```
gen P_f_per_1000m=1000*exp(-b)
```

```
gen L_f_per_1000m=1000*exp(-L)
```

```
gen U_f_per_1000m=1000*exp(-U)
```

```
save results_`ls'.dta, replace
```

```
}
```

```
format P_* L_* U_* %6.1f
```

```
list, table clean noobs
```