Posted by cportner on Mon, 15 Sep 2014 16:02:29 GMT
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I have run into an issue when using weights for NFHS-3. Specifically, it appears that there are too few children in slums according to NFHS-3 compared to what the Census indicates.

According to the Census 7,576,856 children age 0-6 years lived in slums in 2001 out of a total India population aged 0-6 of 163,819,614. This is equivalent to 4.6 percent of the child population of India living in slums in 2001. Furthermore, there were 28,667,504 children aged 0-6 in urban areas that report having a slum, and 37,349,117 children in all urban areas. Hence, 20.3 percent of urban children lived in slums in 2001 according to the Census. The Census numbers for slums can be found at www.censusindia.gov.in/2011-Documents/Slum-26-09-13.pdf. This report has both the 2001 and 2011 data.

The problem is that using the entire child recode sample we get numbers for slums that are too small. According to NFHS-3 only 1.6 percent of all children lived in slums when using weights instead of 4.6 percent. Looking only at urban children NFHS-3 shows 6.2 percent instead of the 20.3 percent that the Census shows.

There are seven states that have slums surveyed in NFHS-3 (Delhi, Uttar Pradesh, West Bengal, Madhya Pradesh, Maharashtra, Andhra Pradesh, and Tamil Nadu). According to the Census these states account for 74 percent of reported slum population. The total child population aged 0-6 of these states was 86,916,056 in 2001. Taking 74 percent of the reported child slum population (assuming that the proportion of slum children to total slum population is the same across all India in slums) we get 5,606,873 children living in slums in the seven states. Hence, for the NFHS we should have 6.5 percent of all children in these states living in slums. Instead if we use weights we get only slightly less than 3 percent of the children living in slums according to the child recode data for NFHS-3 for these states.

I have used the mother's weight because that is the one in the kids' recode. I have also tried to merge in the household weight, but the results are not really that different. Below is an example Stata code to show how I got the results. If something is wrong in the code, please let me know. Otherwise, another explanation for why the numbers are as different as they are would be very much appreciated.

Claus

Stata code:

```
// Check slum weights in NFHS-3
ver 12.1

use IAKR52FL
gen slum = sslumc == 1 | sslums == 1 // census and/or supervisor indicate slum

// Slum children out of all children
tab slum
```

tab slum [aweight = v005] // same % if iweight or v005/1,000,000; 1.6% of children in slum

// urban/rural
tab v02 [aweight = v005] // seems to be okay, around 75% of children rural, fits census 2001

// Slum children out of urban children
tab slum [aweight = v005] if v025 == 1 // 6.2% of urban children in slums

// States with slums in NFHS-3 only
bysort v024: egen stateWithSlum = max(slum)
tab slum [aweight = v005] if stateWithSlum // 2.95% of children in slums