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Subject: Construction of level weights from individual weights

Posted by [Indiana](#) on Thu, 27 May 2021 10:28:07 GMT

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Hello DHS team,

I am trying to approximate cluster-level weights from individual weights for 2015-16 Indian DHS (NFHS-4). While replicating the code in "Multilevel Modelling Using DHS Surveys...:Methodological Report 27" for India, I could not find the distribution of EAs and their average size in number of households by strata in the NFHS-4 final report.

I would be very grateful if anyone could help me in this regard.

Regards,

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Subject: Re: Construction of level weights from individual weights

Posted by [Bridgette-DHS](#) on Thu, 27 May 2021 14:15:06 GMT

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Following is a response from DHS Senior Sampling Specialist, Mahmoud Elkasabi:

It is true that the final report of NFHS-4 only includes a table for number of HHs by states but does not include the table for number of clusters in the census frame. However, you can obtain that information from the census website. This page include a list of blocks with their sizes for each state: [https://censusindia.gov.in/pca/cdb\\_pca\\_census/cd\\_block.html](https://censusindia.gov.in/pca/cdb_pca_census/cd_block.html) .

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Subject: Re: Construction of level weights from individual weights

Posted by [Indiana](#) on Thu, 27 May 2021 19:58:42 GMT

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Thank you for your response, sir.

Following your suggestion, I have to compile the required information from the excel file of 640 districts comprising data of 597608 villages and 7933 towns in India. Wouldn't it be too tedious for a single person?

I request you to please consider my problem and enlighten me with some alternative.

Regards,

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Subject: Re: Construction of level weights from individual weights  
Posted by [Bridgette-DHS](#) on Wed, 02 Jun 2021 15:09:39 GMT  
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Following is a response from DHS Research & Data Analysis Director, Tom Pullum:

We have determined that the Excel files available from that censusindia.gov.in link are not sufficient for estimating the cluster weights in the NFHS-4. They don't have sufficient detail about the urban areas. We are trying to get more information about the sampling frame from the 2011 census and will let users know if we are successful.

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Subject: Re: Construction of level weights from individual weights  
Posted by [Indiana](#) on Thu, 03 Jun 2021 09:04:28 GMT  
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Thank you for your consideration, sir. Meanwhile could you please suggest if it's possible to conduct a multilevel analysis without calculating cluster level weights?

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Subject: Re: Construction of level weights from individual weights  
Posted by [Bridgette-DHS](#) on Thu, 03 Jun 2021 18:31:57 GMT  
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Following is a response from DHS Research & Data Analysis Director, Tom Pullum:

We expect to have the necessary census data by the end of next week. We will then make it available to you and other users.

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Subject: Re: Construction of level weights from individual weights  
Posted by [Indiana](#) on Fri, 30 Jul 2021 07:00:48 GMT  
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Sir please make the required data available, or suggest an alternative way to conduct multilevel analysis.

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Subject: Re: Construction of level weights from individual weights  
Posted by [lmcdougal](#) on Fri, 21 Jan 2022 16:54:23 GMT  
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Hello - wondering if there is any update available on the necessary information to create multilevel weights for the 2015-16 India DHS using 2011 census data? Thanks in advance!

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Subject: Re: Construction of level weights from individual weights  
Posted by [Bridgette-DHS](#) on Tue, 25 Jan 2022 19:29:10 GMT  
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We have just uploaded a folder here:  
[https://github.com/DHSProgram/DHS-Analysis-Code/tree/main/Multilevel\\_Weights/India](https://github.com/DHSProgram/DHS-Analysis-Code/tree/main/Multilevel_Weights/India).

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Subject: Re: Construction of level weights from individual weights  
Posted by [lmcdougal](#) on Wed, 25 May 2022 16:04:01 GMT  
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Thank you, Bridget! This was very helpful for the 2015-16 India DHS. The recently released 2019-21 India DHS has more districts included - are you able to provide guidance on the calculation of multilevel weights for this most recent India data?

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Subject: Re: Construction of level weights from individual weights  
Posted by [Janet-DHS](#) on Thu, 26 May 2022 20:42:53 GMT  
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Following is a response from DHS Senior Sampling Specialist, Mahmoud Elkasabi:

You can use the same materials/steps we provided for NFHS-4. Note that the link we provided earlier does not work anymore; here is the current link [https://github.com/DHSProgram/DHS-Analysis-Code/tree/main/Multilevel\\_Weights/India](https://github.com/DHSProgram/DHS-Analysis-Code/tree/main/Multilevel_Weights/India)

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Subject: Re: Construction of level weights from individual weights  
Posted by [lmcdougal](#) on Thu, 04 Aug 2022 16:41:28 GMT  
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Unfortunately, the NFHS-4 guidance does not directly correspond with NFHS-5; NFHS-5 was collected using 707 districts, as compared to the 640 in NFHS-4, thus including more districts than were used in the 2011 India Census. The multilevel weight calculations require the total number of census clusters in a given strata, the average number of households per cluster by sampling strata, and the total number of households according to the census frame. The NFHS-5 (India 2019-21) final report on the DHS website right now doesn't seem to contain appendices, so I can't tell if any of this information is provided therein.

Do you have any recommendations for how to get this information and calculate these weights for NFHS-5?

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Subject: Re: Construction of level weights from individual weights  
Posted by [fred.arnold@icf.com](mailto:fred.arnold@icf.com) on Thu, 04 Aug 2022 17:00:07 GMT  
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The appendices are included in Volume 2 of the final report. Volume 2 has been drafted and it should be publicly available in the next couple of months. Volume 2 includes an appendix on the sample design and another appendix on estimates of sampling errors. NFHS-4 covered all of the 640 districts in the country at the time of the 2011 Census. NFHS-5 covered all of the 707 districts in the country as of March 31, 2017.

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Subject: Re: Construction of level weights from individual weights  
Posted by [Mukesh](#) on Mon, 20 Mar 2023 12:52:42 GMT  
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Daer Imcdougal,

I tried to follow the codes given for "rural area" but unable to get the outcomes. Can you please help me.

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Subject: Re: Construction of level weights from individual weights  
Posted by [Mukesh](#) on Wed, 22 Mar 2023 12:52:16 GMT  
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Dear DHS team,

I tried to replicate the results given for "URBAN AREA EB" in the x.xlsx file on the DHS GitHub page.  
That do match with "Total Number of Household" and how to find EA for urban wards?

Thanks

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Subject: Re: Construction of level weights from individual weights  
Posted by [Mukesh](#) on Wed, 22 Mar 2023 14:07:37 GMT  
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I am referring to NFHS-4 (2015-16) (India & 2015-16).

I am trying to replicate the urban area file given here in Excel format:

[https://github.com/DHSProgram/DHS-Analysis-Code/tree/main/Multilevel\\_Weights/India](https://github.com/DHSProgram/DHS-Analysis-Code/tree/main/Multilevel_Weights/India)

I found discrepancies in the "total number of households" in the "urban area" given in the file on "dhs\_github" and the original file from Census of India-- link is given below.

I accessed the census\_pca file here--

<https://censusindia.gov.in/census.website/data/census-tables> # than searched "pca block wise" then I filtered this file for the urban area for many districts, but "the total number of household" do not match with dhs\_excel file given on first link

My query is how to:

1. How to replicate the "EA average size\_Urban.xlsx" given on github page of DHS.
2. How to find EA in urban area
3. Finally, how to find the size of the rural clusters

Hope this clarifies.

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Subject: Re: Construction of level weights from individual weights

Posted by [Bridgette-DHS](#) on Fri, 24 Mar 2023 11:44:40 GMT

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We are looking into this problem and will try to provide what you need within the next few days.

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Subject: Re: Construction of level weights from individual weights

Posted by [Mukesh](#) on Sat, 08 Apr 2023 10:08:08 GMT

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Dear DHS team any update in this regard?

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Subject: Re: Construction of level weights from individual weights

Posted by [HannahG](#) on Mon, 17 Jun 2024 11:26:19 GMT

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Hello,

I am wondering if there is an update re: calculating cluster level weights for NFHS-5? The 'EA average size\_Urban' excel file uploaded to the Github repository for the NFHS-4 cannot be used for NFHS-5 as the number of districts are different. Volume 2 of the NFHS-5 final report has tables on sample design and error but doesn't contain the information for individual strata as required by the MR27 method and usually included in Final Reports. Can you advise on a method to compute the total number of census clusters in a given strata, the average number of households per cluster by sampling strata, and the total number of households according to the census frame?

Best,  
Hannah

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Subject: Re: Construction of level weights from individual weights  
Posted by [Bridgette-DHS](#) on Mon, 17 Jun 2024 12:52:53 GMT  
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Following is a response from Senior DHS staff member, Tom Pullum:

There have been other recent posts on calculating multilevel weights for the NFHS-5. DHS does not have the information required to calculate such weights, we do not know where to find the information (if it still exists), and we have no resources to put into this.

As I have said before, if anyone out there has been able to calculate the multilevel weights for the NFHS-5, please let us know and we will help make them available to other users.

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