Design Weight

The design weight of a household included in the urban areas is the inverse of its inclusion probability that is the probability belonging to the selected sample of households:

$$W_h = \frac{1}{\pi_h} = \frac{1}{\frac{n_h}{N_h}} = \frac{N_h}{n_h}, \qquad h = 1,4,6,8$$

where, π_h = the probability of a household to be selected from stratum *h*

n_h = the sample size of stratum *h*

N_h = the total number of households in the sampling frame of stratum *h*

The design weight of a household belonging in the rural areas is the inverse of its inclusion probability that is the probability belonging to the selected sample of households:

$$W_h = \frac{1}{\pi_h} = \frac{1}{\frac{n_h}{N_h}} = \frac{N_h}{n_h}, \qquad h = 2,3,5,7,9$$

where, π_h = the probability of a household to be selected from stratum *h*

n_h = the sample size of stratum *h*

N_h = the total number of households in the sampling frame of stratum *h*

Non-response adjustments

The aim of non-response adjustments is to reduce the bias due to non-response, i.e. the household was contacted, but the household questionnaire was not completed. The empirical response rate within each stratum provides an estimate of the response probability for all the households of the stratum. The weight of a household in the urban areas after correction for the non-response at the household level is:

$$W_h \times \frac{1}{\hat{p}_h}, \text{ where}$$

W_h = the design weight of a household in stratum *h* before non-adjustment

$\hat{p}_h$ = the estimated response probability of the household in stratum *h*

The weight of a household in the rural areas after correction for the non-response at the household level is:

$$W_h \times \frac{1}{\hat{p}_h}, \text{ where}$$

W_h = the design weight of a household in stratum *h* before non-adjustment

$\hat{p}_h$ = the estimated response probability of the household in stratum *h*