DB080: HOUSEHOLD DESIGN WEIGHT

Topic and detailed topic: Technical items/Weights

Variable type: Annual

Unit: Household

Reference period: Current

Mode of collection: Derived

In use (period): Yes, since 2008 (except 2014)

Series' differences: Yes, 2014

VALUES AND FORMAT

0 (format 2,5)   Weight

Required format   Household cross-sectional weights will be coded with at least one integer and five decimals.

FLAGS

1   Filled

-2   Not applicable (not in the first year in the survey or split off)

DESCRIPTION

Weighting for the first year of each sub-sample

Design weights (household weights DB080 and 'Selected respondent' weights PB070)

The design weights need to be defined for all selected units, not only for responding units. The household design weights aim to draw inference on the household population from the household sample. The design weight of a household (h) is the inverse of its inclusion probability. DB080 is computed as follows:

<u>In the case that households are sampled</u> (or addresses or other units containing households):

$$DB080_h = 1 \text{ / (probability of selection of h)}$$

<u>In the case that persons are sampled</u>:

$$DB080_h = 1 \text{ / } \Sigma \text{ (probabilities of selection of eligible persons in h)}$$

'Eligible persons' are people who are given a non-zero probability in the selection procedure, such as people aged 16+. When the probability of selection is the same for all eligible people in each household, the denominator is simply the number of such people in the household multiplied by the probability of selection.

From the second year onwards (case of a rotational panel)

For the households which are not interviewed for the first time, no values are to be given for the design weight and these are to be flagged '-2' (not applicable).

In the weight section (8), a more extensive explanation on the weighting procedures is given.

Further adjustments taking into consideration non-response or calibration are done DB080 (N).

The design weights have to be inflated by the inverse of the response propensities in order to compensate for the loss of units in the sample. A classical procedure consists of modifying the design weights by a factor inversely proportional to the response rate within each 'homogeneous group', in which the response probabilities are assumed to be equal:

$$DB080_h^{(N)} = DB080_h \cdot \frac{1}{R_K}$$

Where R_K denotes s the (weighted) response rate in the group (*k*) the household (*h*) belongs to:

$$R_K = \frac{sum \quad of \quad design \quad weights \quad of \quad responding \quad units \quad in \quad cel \quad k}{sum \quad of \quad design \quad weights \quad of \quad selected \quad units \quad in \quad cell \quad k}$$

See construction of weights in the first part of section 8: weights.