EUROPEAN COMMISSION
EUROSTAT

Directorate F: Social statistics
Unit F-4: Income and living conditions; Quality of life

SILC DISCLOSURE CONTROL RULES

YEAR 2021

CROSS-SECTIONAL DATA

DIFFERENCES BETWEEN ORIGINAL DATABASE (as described in the guidelines) AND THE ANONYMISED USER DATABASE

In order to ensure disclosure control and confidentiality of the UDB, some variables collected were removed or changed. On the other hand, in order to ease the use of the data, some variables were added.

This document summarizes the changes between the data collected by countries as described in the 2021 guidelines and the user database.

1. GENERAL RULES

Applied for all countries except when specified on point 2

INCOME VARIABLES

All variables are in € (EURO). For the countries, not members of the euro area the conversion factor can be found in variables ***HX010*** and ***PX010***.

Income data (euro) i.e. **HY020** * **HX010** = income data (national currency).

CALCULATED ADDED VARIABLES

RX010: Age at the time of interview
RX020: Age at the end of income reference period
RX030: Household identification number
RX040: Work intensity (new definition)
RX050: Low work intensity status (new definition) (*0=no lwi, 1=lwi, 2=N/A*)
RX060: Severely materially and socially deprived (*0=not deprived, 1=deprived*)
RX070: At risk of poverty or social exclusion (new definition) (*1st digit= at risk of poverty, 2nd digit= Severely materially deprived, 3rd digit= Low work intensity (0 when LWI in (0,2) 1 when LWI=1*)

HX010: Change rate
HX040: Household size
HX050: Equivalised household size
HX060: Household type
HX070: Tenure status
HX080: Poverty indicator
HX090: Equivalised disposable income
HX120: Overcrowded household (*0=not overcrowded, 1=overcrowded,.=N/A*)

PX010: Change rate
PX020: Age at the end of the income reference period
PX030: Household identification number
PX040: Selected respondent status
PX050: Activity status

REMOVED VARIABLES

DB050: Primary strata
DB080: Household design weight
DB120: Contact at address
DB130: Household questionnaire result
DB135: Household interview acceptance

HB040: Day of household interview

PB070: Personal design weight for selected respondent
PB090: Day of the personal interview
PB260: Nature of participation in the survey
PB265: Personal ID of person who filled in the questionnaire

RB083: Passing of birthday at time of interview

TOP/BOTTOM CODING

RB080: Year of birth
→ Year of survey minus 81 and below.

RX010: Age at the time of interview
RX020: Age at the end of income reference period
RB081: Age in completed years
RB082: Age in completed years at the time of the interview
→ 80 and above.

HH030: Number of rooms available to the household
→ 6 and above.

PB140: Year of birth
→ Year of survey minus 81 and below.

PE021: ISCED level currently attended
→ 50 and above.

PE041: Highest ISCED level attained
→ 500 and above.

PX020: Age at the time of interview
→ 80 and above.

GROUPING / RECODING / PROCESSING

DB040: NUTS
→ NUTS 1 level only.

RB285: Duration of stay in the country of residence in completed years
→ Grouped in 5-year classes according to:

0 - 4 = 0
5 - 9 = 5
10 - 14 = 10
15 - 19 = 15
20 - 24 = 20
25 - 29 = 25
30 - 34 = 30
35 - 39 = 35
40 - 44 = 40
45 - 49 = 45
50 - 54 = 50
55 - 59 = 55
60 - 64 = 60
65 - 69 = 65
70 - 74 = 70
75 - 79 = 75
>=80 = 80

HB050: Month of household interview
→ Grouped into quarters.

HH010: Dwelling type
→ 5 recoded as missing.

RB280: Country of birth
→ Recoded *"LOC", "EU" "OTH"*.

RB290: Citizenship 1
→ Recoded *"LOC", "EU" "OTH"*.

PB230: Country of birth of father
→ Recoded *"LOC", "EU" "OTH"*.

PB240: Country of birth of mother

→ Recoded *"LOC", "EU" "OTH"*.

PB100: Month of the personal interview

→ Grouped into quarters.

PL111A: Economic activity of the local unit for the main job

PL111B: Economic activity of the local unit (last job): NACE (Rev 2)

1 – 3= *" a"* /* Agriculture, forestry and fishing*/

5 – 39=*"b – e"*/* Mining and quarrying, Manufacturing, Electricity, gas, steam and air conditioning supply, Water supply*/

41 – 43=*" f"* /* Construction */

45 – 47=*" g"* /* Wholesale retail */

49 – 53=*" h"* /* Transportation and storage*/

55 – 56=*" i"* /* Accommodation and food service activities*/

58 – 63=*" j"* /* Information and communication */

64 – 66=*" k"* /* Financial and insurance activities */

68 – 82=*"l – n"* /* Real estate activities, Professional, scientific and technical activities, Administrative and support service activities */

84=*" o"* /* Public administration and defence, compulsory social security */

85=*" p"* /* Education */

86 – 88=*" q"* /* Human health and social work activities*/

90 – 99=*"r – u"*/* Arts, entertainment and recreation, Other service activities, Activities as household as employer..., Activities of extraterritorial organisations and bodies*/

PERTURBATION / PROCESSING

DB030: Household ID

→ Randomised and appropriate modification of related identification numbers (***RB030***, ***RX030***, ***RB220***, ***RB230***, ***RB240***, ***RB270***, ***HB030***, ***HB070***, ***HB080***, ***HB090***, ***PB030***, ***PX030***, ***PB160***, ***PB170***, ***PB180***).

DB060: PSU-1 (first stage)

→ Randomised.

DB062: PSU-2 (second stage)

→ Randomised.

2. COUNTRY SPECIFIC RULES

AT

No randomisation of Household and Personal ID.

BE

No randomisation of Household and Personal ID.

BG

No randomisation of Household and Personal ID.

CH

No randomisation of Household and Personal ID.

DB050: Primary strata variable added.

CZ

No randomisation of Household and Personal ID.

No randomisation of PSU1 and PSU2.

DB040: Region
→ NUTS2.

DE

Subsample of 90%

HX040, HB120: Household size
→ All records (at household and individual level) of Households with size 7 or over suppressed.

DB100: Degree of urbanization
→ Merging "1" and "2" into "1"

RG_Z#: Household Grid
→ Not provided.

RB090: Sex
PB150: Sex
→ Recoded sex for one partner when a couple is in a same sex relationship:
- the sex of the younger partner should be female and that of the older male;
- if a new same-sex partner moves into the household, only the sex of the new partner is adjusted.

HY040G/HY040N: Income from rental of a property or land
HY090G/HY090N: Interest, dividends, profit from capital investments in unincorporated business
HY140G/HY140N: Tax on income and social contributions
→ Top coding and replacement by mean of 5 highest values for each year separately:
- select the 5 highest values for each of the variables;
- replace them with the weighted mean of those 5 values.

HY140G/HY140N: Tax on income and social contributions

→ Bottom coding and replacement by mean of 3 lowest values for each year separately:

- select the 3 lowest negative values (adjust the number if there are less than 3 such records);
- replace them with the weighted mean of those 3 values.

PY010G/PY010N: Employee cash or near cash income
PY050G/PY050N: Cash benefits or losses from self-employment
PY080G/PY080N: Pension from individual private plans
PY090G/PY090N: Unemployment benefits
PY100G/PY100N: Old-age benefits

→ Top coding and replacement by mean of 5 highest values for each year separately:

- calculate the sum of income variable over all household members;
- select the 5 highest values of the sum;
- replace them with the weighted mean of those 5 summed up values;
- divide the mean between all household members according to their previous share of the sum.

PY050G/PY050N: Cash benefits or losses from self-employment

→ Bottom coding and replacement by mean of 3 lowest values for each year separately:

- calculate the sum of this variable over all household members;
- select the 3 lowest negative values (adjust the number if there are less than 3 such records);
- replace them with the weighted mean of those 3 summed up values;
- divide the mean between all household members according to their previous share of the sum.

PY091G: Unemployment benefits (C & MT)
PY092G: Unemployment benefits (C & NMT)
PY093G: Unemployment benefits (NC & MT)
PY094G: Unemployment benefits (NC & NMT)
PY101G: Old-age benefits (C & MT)
PY102G: Old-age benefits (C & NMT)
PY103G: Old-age benefits (NC & MT)
PY104G: Old-age benefits (NC & NMT)

→ Adjust to top-coded variables *PY090G* and *PY100G* according to their share of the original variables.

HY010: Total household gross income
HY020: Total disposable household income
HY022: Total disposable household income before social transfers other than old-age and survivor's benefits
HY023: Total disposable household income before social transfers including old-age and survivor's benefits

→ Adjust for the difference between the original and the top-coded variables *HY040G*, *HY090G*, *HY140G*, *PY010G*, *PY050G*, *PY080G*, *PY090G* and *PY100G*.

→ If the sign of HY020 changes due to anonymization of its components, further adjust HY140G for the difference of the anonymized and original values of the income components so that HY020 keeps its original value.

EE

DB100: Degree of urbanisation
→ Merging "2" and "1" into "1".

HY010: Total household gross income
HY020: Total disposable household income
HY022: Total disposable household income before social transfers other than old-age and survivor's benefits
HY023: Total disposable household income before social transfers including old-age and survivor's benefits
HY090G: Net interest, dividends, profit from capital investment in unicorporated business
HY120G: Regular taxes on wealth
HY140G: Tax on income and social insurance contribution
→ Perturbation of 3 highest ***HY010*** incomes:

- selection of the 3 highest ***HY010***;
- replacement of recorded value by their weighted mean for ***HY010***, ***HY020***, ***HY022***, ***HY023***, ***HY090G***, ***HY120G*** and ***HY140G***;
- proportional adjustment of the related income sub-components.

RB280: Country of birth
RB290: Citizenship 1
→ Recoded *"LOC"* and *"OTH"* (including *"EU"*).

ES

No randomisation of Household and Personal ID.

DB040: Region
→ NUTS2.

FI

RX020, PX020: Age perturbation is applied

DB040: Region
→ NUTS2 with FI20 included in FI1B for FI.

FR

No randomisation of Household and Personal ID.

DB040: Region
→ NUTS2.

RB051: display regional weights

CAUTION: The calculation of regional indicators, using the NUTS2 level split of the DB040 variable, is strongly discouraged on data prior to 2022. Up until 2022, the variable RB051 is indeed equivalent to the variable RB050 (personal cross-sectional weight) and is therefore not designed to be used at a regional level.

From SILC-UDB operation 2021 (release of 2022-09) onwards, the variable RB051 will contain regional weights calculated using a small area estimation method.
The sample size of the EU-SILC survey, around 25,000 respondents in France metropolitan, and the number of regions, 22, 9 of which have fewer than 800 respondents, make it impossible to calculate reliable poverty indicators for each region. This is why INSEE has developed a small area estimation method, which will provide micro-data (weights) for each region, allowing the calculation of poverty rate at regional level.

PY010G/N, PY050G/N, PY080G/N, PY090-1-2-3-4G/N, PY100-1-2-3-4G/N, PY110-1-2-3-4G/N, PY130-1-2-3-4G/N, HY020, HY022, HY023, HY040G/N, HY080G/N, HY081G/N, HY090G/N, HY130G/N, HY131G/N, HY145N

→ Rounded to the next 10 €.

IE

PE041: Highest ISCED Level Attained

→ Additional to top coding, group PE040:
340 - 354 = 300 "Upper secondary education (not further specified)"
440 - 450 = 400 "Post-secondary non-tertiary education (not further specified)"

PL200: number of years spent in paid work – top coding

→ > 55 = 55.

PY010G/N, PY050G/N, PY080G/N, PY090-1-2-3-4G/N, PY100-1-2-3-4G/N, PY110-1-2-3-4G/N, PY130-1-2-3-4G/N, HY020, HY022, HY023, HY040G/N, HY080G/N, HY081G/N, HY090G/N, HY130G/N, HY131G/N, HY145N

→ Rounded to the next 10 €.

IT

PE021: ISCED level currently attended

→ 30, 34, 35, 39 grouped into 30.
→ 40, 44, 45, 49 grouped into 40.
→ 50, 54, 55, 59 grouped into 50.

PE041: Highest ISCED level attained

→ 300, 340, 342, 343, 344, 349, 350, 352, 353, 354, 359, 390, 392, 393, 394, 399 grouped into 300.
→ 400, 440, 450, 490 grouped into 400.
→ 500, 540, 550, 590 grouped into 500.

RG_Z#: Grid → removed

RB032: Sequential number of the persons in the household → removed

HB110: Household type → removed

PB230: Country of birth of the father → Recoded *"LOC", "EU" "OTH"*.

PB240: Country of birth of the mother→ Recoded *"LOC", "EU" "OTH"*.

PB265: Personal ID of the person who filled in the individual questionnaire → removed

RB081: Age in completed years → removed

RB082: Age in completed years at the time of the interview → removed

RB083: Passing of birthday at the time of the interview → removed

RB280 (new 2021): Country of birth
→ Recoded *"LOC"* and *"OTH"* (including *"EU"*).

LU

Not available

LV

DB100: Degree of urbanisation
→ Merging "2" and "1" into "1".

RB290: Citizenship 1
RB280: Country of birth
→ Recoded *"LOC"* and *"OTH"* (including *"EU"*).

MT

DB060: PSU-1 (first stage)
→ **Not** randomised. (Variable does not apply – multistage sampling not used)

DB062: PSU-2 (second stage)
→ **Not** randomised. (Variable does not apply – multistage sampling not used)

DB100: Degree of urbanisation
→ Recoded as follows:
1 = *"1"* - Cities
2-3 = *"2"* - Towns, suburbs and rural areas

HH030: Number of rooms available to the household
→ Top-coded at 6 as *"6 or more"*
→ Bottom-coded at 2 as *"2 or less"*.

HX040, HB120: Household size
→ Top-coded at 6 as *"6+"*

PB190: Marital status
→ Recoded as follows:
1 = *"1"* - Never married
2 = *"2"* - Married
3, 5 = *"3"* - Separated or divorced
4 = *"4"* - Widowed

RB280: Country of birth
→ Recoded as follows:
MT = *"1"* - Malta
Else = *"2"* - Other (including EU countries)

RB290: Citizenship 1
→ Recoded as follows:
MT = *"1"* - Malta
Else = *"2"* - Other (including EU countries)

PE021: ISCED level currently attended:
→ Grouped as follows:
00-20 = *"20"* - ISCED 2 Lower secondary education or less
30-39 = *"30"* - ISCED 3 Upper secondary education
40-49 = *"40"* - ISCED 4 Post-secondary non-tertiary
50-80 = *"50"* - ISCED 5-8 Short cycle tertiary, Bachelor's, Master's, Doctorate level or equivalent

PE041: Highest ISCED level attained
→ Grouped as follows:
000 = *"000"* - No formal education
100 = *"100"* - ISCED 1 Primary education
200 = *"200"* - ISCED 2 Lower secondary education
340-349 = *"340"* - ISCED 3 Upper secondary education (general)
350-359 = *"350"* - ISCED 3 Upper secondary education (vocational)
390-399 = *"390"* - ISCED 3 Upper secondary education (orientation unknown)
440 = *"440"* - ISCED 4 Post-secondary non-tertiary (general)
450 = *"450"* - ISCED 4 Post-secondary non-tertiary (vocational)
490 = *"490"* - ISCED 4 Post-secondary non-tertiary (orientation unknown)
540-800 = *"500"* - ISCED 5-8 Short cycle tertiary, Bachelor's, Master's, Doctorate level or equivalent

PL051A: Occupation in main job
PL051B: Occupation (last job)
→ Grouped as follows:
11 – 14 = *"1"* – Legislators, senior officials and managers
21 – 26 = *"2"* – Professionals

31 – 35 = *"3"* – Technicians and associate professionals
41 – 44 = *"4"* – Clerks
51 – 54 = *"5"* – Service workers and shop and market sales workers
61 – 63 = *"6"* – Skilled agricultural and fishery workers
71 – 75 = *"7"* – Craft and related trades workers
81 – 83 = *"8"* – Plant and machine operators and assemblers
91 – 96 = *"9"* – Elementary occupations
01 = *"10"* – Armed forces

RB080, PB140: Year of birth

→ Grouped into 5-year groups as follows:

- 1941 or before = *"1"* - 1941 or before
- 1942-1946 = *"2"* - 1942-1946
- 1947-1951 = *"3"* - 1947-1951
- 1952-1956 = *"4"* - 1952-1956
- 1957-1961 = *"5"* - 1957-1961
- 1962-1966 = *"6"* - 1962-1966
- 1967-1971 = *"7"* - 1967-1971
- 1972-1976 = *"8"* - 1972-1976
- 1977-1981 = *"9"* - 1977-1981
- 1982-1986 = *"10"* - 1982-1986
- 1987-1991 = *"11"* - 1987-1991
- 1992-1996 = *"12"* - 1992-1996
- 1997-2001 = *"13"* - 1997-2001
- 2002-2006 = *"14"* - 2002-2006
- 2007-2011 = *"15"* - 2007-2011
- 2012-2016 = *"16"* - 2012-2016
- 2017-2021 = *"17"* - 2017-2021

PX020: Age at the end of income reference period

→ Grouped into 5-year groups as follows:

- 0-4 = *"1"* - 0-4
- 5-9 = *"2"* - 5-9
- 10-14 = *"3"* - 10-14
- 15-19 = *"4"* - 15-19
- 20-24 = *"5"* - 20-24
- 25-29 = *"6"* - 25-29
- 30-34 = *"7"* - 30-34
- 35-39 = *"8"* - 35-39
- 40-44 = *"9"* - 40-44
- 45-49 = *"10"* - 45-49
- 50-54 = *"11"* - 50-54
- 55-59 = *"12"* - 55-59

- 60-64 = *"13"* - 60-64
- 65-69 = *"14"* - 65-69
- 70-74 = *"15"* - 70-74
- 75-79 = *"16"* - 75-79
- 80+ = *"17"* - 80+

RX010, RB082: Age at the time of interview

→ Not provided.

RX020, RB081: Age at the end of income reference period

→ Not provided.

HH060, HH070, HH071, HS130, HY010, HY020, HY022, HY023, HY030G, HY040G, HY050G, HY052G, HY053G, HY054G, HY060G, HY063G, HY070G, HY073G, HY080G, HY081G, HY090G, HY100G, HY110G, HY130G, HY131G, HY140G, HX050, HX090, PL060, PL073, PL074, PL075, PL076, PL080, PL085, PL086, PL087, PL088, PL089, PL090, PL100, PY010G, PY020G, PY021G, PY030G, PY035G, PY050G, PY080G, PY090G, PY091G, PY092G, PY093G, PY100G, PY102G, PY103G, PY104G, PY110G, PY112G, PY120G, PY122G, PY123G, PY130G, PY132G, PY133G, PY134G, PY140G, PY144G

As '*continuous/quantitative variables'****;***

→ Detection and elimination of outliers in a *'unique combination'* of Sex, 5-year age group and degree of urbanisation.

If a *'continuous/quantitative variable'* of a person in a *'unique combination'* is an outlier then the *'continuous/quantitative variable'* is bottom/top coded to the Lower / Upper risk threshold of the *'continuous/quantitative variable'*.

Method of *'unique combination'* (persons that are unique in their group):

- The *'unique combination'* is checked in person data.
- The variables participating in the construction of the groups of *'unique combination'*:
  1. Sex (RB090)
  2. Age at the end of income reference period (PX020)
  3. Degree of urbanisation (DB100)

Outliers of the *'continuous/quantitative variables'* of the persons in the *'unique combinations'* are detected. If there is no *'unique combination'* then there is no need to check and detect outliers.

Method of detection of outliers for each *'continuous/quantitative variables'*:

An outlier is a *'continuous/quantitative variable'* outside the interval below.

Lower Risk Threshold < 'pro capite' value < Upper Risk Threshold

Whereby the
'pro capite' value is

- The actual value of the numeric variable divided by the total number of members in the household in case of household variables.
- The actual value (i.e. no division is done) of the variable related to individuals.

The thresholds are calculated using the whole population.
Lower Risk Threshold= Q1-3*IQR
Upper Risk Threshold=Q3+3*IQR

Q1 = Quartile 1 (i.e. the 25th percentile)
Q3 = Quartile 3 (i.e. the 75th percentile)
IQR = Q3-Q1

The *'continuous/quantitative variable'* outliers are bottom/top coded.

Method of the top/bottom coding

- In case of household variables the Lower/Upper Risk Threshold is multiplied by the members in the household.
- In case of individuals (person-related variables) the Lower/Upper Risk Threshold (i.e. no multiplication is done) substitutes the actual value.

NL

DB040: Region
DB100: Degree of urbanisation

PL

PE041: Highest ISCED level attained
→ Not top-coded.

PT

No randomisation of Household and Personal ID.

No randomisation of PSU1 and PSU2.

DB040: Region
→ NUTS2.

RB080: Year of birth
→ Bottom coding: year of survey minus 80 and below.

PB140: Year of birth
→ Bottom coding: year of survey minus 80 and below.

PL051A: Occupation in main job

PL051B: Occupation (last job)
→ Grouping 11, 12 and 13 into 14.

SK

No randomisation of Household and Personal ID.

No randomisation of PSU1 and PSU2.

SI

DB100: Degree of urbanisation

RB285: Duration of stay in the country of residence in completed years
→ Not provided.

RB280: Country of birth
RB290: Citizenship 1
→ Recoded *"LOC"* and *"OTH"* (including *"EU"*).

PB230: Country of birth of father
PB240: Country of birth of mother
→ Recoded *"LOC"* and *"OTH"* (including *"EU"*).

PE021: ISCED level currently attended
→ Bottom coding: grouping 00, 10, 20 into 20.

PE041: Highest ISCED level attained
→ Bottom coding: grouping 000, 100, 200 into 200.

PL051A: Occupation in main job
PL051B: Occupation (last job)
→ Grouping according to the first digit.

HY040G/HY040N: Income from rental of a property or land
HY050G/HY050N: Family/Children-related allowances
HY060G/HY060N: Social exclusion not elsewhere classified
HY070G/HY070N: Housing allowances
HY090G/HY090N: Interest, dividends, profit from capital investments in unincorporated business
HY110G/HY110N: Income received by people aged under 16
HY120G/HY120N: Regular taxes on wealth
PY035G/PY035N: Contributions to individual private pension plans
PY080G/PY080N: Pension from individual private plans
HY081G/HY081N: Alimonies received (compulsory + voluntary)
HY131G/HY131N: Alimonies paid (compulsory + voluntary)
PY021G/PY021N: Company car

HY121G/HY121N: Taxes paid on ownership of household main dwelling

→ Top coding »10-20« (version 1), *i.e.*:

- selection of the 10 IDs with the highest original value of the gross variable;
- selection of the 10 IDs with the highest original value of the net variable;
- union of selected IDs (contains at least 10 and not more than 20 IDs);

for the IDs from the union:

- replacement of original values with weighted average for the gross variable;
- replacement of original values with weighted average for the net variable.

→ Rounded to the nearest 10 €.

HY080G/HY080N: Regular inter-household cash transfer received (related variables are ***HY081G/HY081N***: Alimonies received (compulsory + voluntary))
HY130G/HY130N: Regular inter-household cash transfer paid (related variables are ***HY131G/HY131N***: Alimonies paid (compulsory + voluntary))
PY020G/PY020N: Non-Cash employee income (related variables are ***PY021G/PY021N***: Company car)

→ Top coding »10-40«, *i.e.*:

- selection of the 10 IDs with the highest original value of the gross variable;
- selection of the 10 IDs with the highest original value of the net variable;
- among the 10 IDs with the highest original value of the related gross variable, selection of IDs for which the original value of the gross variable is greater or equal than the original value of the related gross variable;
- among the 10 IDs with the highest original value of the related net variable, selection of IDs for which the original value of the net variable is greater or equal than the original value of the related net variable;
- union of selected IDs (contains at least 10 and not more than 40 IDs);

for the IDs from the union:

- replacement of original values with weighted average for the gross variable;
- replacement of original values with weighted average for the net variable.

→ Rounded to the nearest 10 €.

PY030G: Employer's social insurance contribution (related variable is ***PY031G***: Optional employer's social insurance contributions)

→ Top coding »10-20 (version 2)«, *i.e.*:

- selection of the 10 IDs with the highest original value of the variable;
- selection of the 10 IDs with the highest original value of the related variable;
- union of selected IDs (contains at least 10 and not more than 20 IDs);

for the IDs from the union:

- replacement of original values with weighted average for the variable.

→ Rounded to the nearest 10 €.

PY010G/PY010N: Employee cash or near cash income
PY050G/PY050N: Cash benefits or losses from self-employment
PY090G/PY090N: Unemployment benefits
PY100G/PY100N: Old-age benefits
PY110G/PY110N: Survivor' benefits
PY120G/PY120N: Sickness benefits
PY130G/PY130N: Disability benefits
PY140G/PY140N: Education-related allowances

→ Top coding »20-40«, *i.e.*:

- selection of the 20 IDs with the highest original value of the gross variable;
- selection of the 20 IDs with the highest original value of the net variable;
- union of selected IDs (contains at least 20 and not more than 40 IDs);

for the IDs from the union:

- replacement of original values with weighted average for the gross variable;
- replacement of original values with weighted average for the net variable.

→ Rounded to the nearest 10 €.

HY145N: Repayments/receipts for tax adjustment

→ Top coding: for the highest 10 original values, replacement of the original values with their weighted average.

→ Bottom coding: for the lowest 10 original values, replacement of the original values with their weighted average.

→ Rounded to the nearest 10 €.

HY010: Total household gross income
HY020: Total disposable household income
HY022: Total disposable household income before social transfers other than old-age and survivor's benefits
HY023: Total disposable household income before social transfers including old-age and survivor's benefits
HY140G/HY140N: Tax on income and social contributions – calculated as *HY140G= (HY040G-HY040N) + (HY090G-HY090N)+(HY050G-HY050N)+(HY060G-HY060N)+(HY070G-HY070N)+(HY110G-HY110N)+[for all household members] (PY010G-PY010N)+ (PY021G-PY021N)+(PY050G-PY050N)+(PY080G-PY080N)+(PY090G-PY090N)+(PY100G-PY100N)+(PY110G-PY110N)+(PY120G-PY120N)+(PY130G-PY130N)+(PY140G-PY140N)+HY145N*
HY140N: Tax on income and social contributions – calculated as *HY140N = HY140G*
HY073G: Housing allowances (NC & MT) – calculated as *HY073G = HY070G*
PY122G: Sickness benefits (C & NMT) –calculated as *PY122G = PY120G*
HX090: Equivalised disposable income

→ Computed from other (already protected) variables.

HY052G: Family/Children-related allowances (C & NMT) (related variable is *HY050G*)
HY053G: Family/Children-related allowances (NC & MT) (related variable is *HY050G*)
HY054G: Family/Children-related allowances (NC & NMT) (related variable is *HY050G*)
HY063G: Social exclusion not elsewhere classified (NC & MT) (related variable is *HY060G*)
HY064G: Social exclusion not elsewhere classified (NC & NMT) (related variable is *HY060G*)
PY092G: Unemployment benefits (C & NMT) (related variable is *PY090G*)
PY094G: Unemployment benefits (NC & NMT) (related variable is *PY090G*)
PY102G: Old-age benefits (Contributory and non means-tested) (related variable is *PY100G*)
PY103G: Old-age benefits (NC & MT) (related variable is *PY100G*)
PY104G: Old-age benefits (NC & NMT) (related variable is *PY100G*)
PY112G: Survivor' benefits (C & NMT) (related variable is *PY110G*)
PY113G: Survivor' benefits (NC & MT) (related variable is *PY110G*)

PY114G: Survivor' benefits (NC & NMT) (related variable is *PY110G*)
PY132G: Disability benefits (C & NMT) (related variable is *PY130G*)
PY133G: Disability benefits (NC & MT) (related variable is *PY130G*)
PY134G: Disability benefits (NC & NMT) (related variable is *PY130G*)
PY143G: Education-related allowances (NC & MT) (related variable is *PY140G*)
PY144G: Education-related allowances (NC & NMT) (related variable is *PY140G*)

→ Calculate the share of the variable's value in the non-protected related variable's value. Replace the variable's value so it will have the same share in the protected related variable's value.

RB090: Sex
PB150: Sex

→ Recoded sex for one partner when a couple is in a same sex relationship:

- the sex of the younger partner should be female and that of the older male;
- if a new same-sex partner moves into the household, only the sex of the new partner is adjusted.

RB081: Age in completed years (at the end of income reference period)
RB082: Age in completed years at the time of the interview

→ 80 and above.

RK030: Usual time the parent needs to get to the child who is not a household member

→ Aggreagation to the following categories:

0 ← 0
1 ← 1-10
2 ← 11-30
3 ← 31-60
4 ← 61+

RK080: Legal child custody situation
Code 4 (Other) is changed to Missing and the flag is changed to -1 (Missing).

PL141: Permanency of main job

→ Aggreagation to the following categories:

11 ← 11, 12
21 ← 21, 22

PL271: Duration of the most recent unemployment spell

→ Aggreagation to the following categories:

31 ← 25-36
48 ← 37-59
Other original values are not changed

UK

All records (at household and individual level) pertaining to households of size 10 and over are suppressed.

HY010: Total household gross income
HY020: Total disposable household income

HY022: Total disposable household income before social transfers other than old-age and survivor's benefits
HY023: Total disposable household income before social transfers including old-age and survivor's benefits
HY090G: Net interest, dividends, profit from capital investment in unicorporated business
HY120G: Regular taxes on wealth
HY140G: Tax on income and social insurance contribution

→ Perturbation of 3 highest ***HY010*** incomes for each wave:

- selection of the highest ***HY010***;
- replacement of recorded value by their weighted mean for ***HY010***, ***HY020***, ***HY022***, ***HY023***, ***HY090G***, ***HY120G*** and ***HY140G***;
- proportional adjustment of the related income sub-components.

All ***HY*** and ***PY*** variables (including disaggregated variables), as well as ***HH060***, ***HH061***, ***HH070***, ***HH071*** and ***HS130*** are rounded to the nearest 50 €.

3. CALCULATED VARIABLES

RX010: Age at the time of interview

A household member coded "80" is 80 years old or over

RX010 is calculated by subtracting date of birth (in year and month) from date of interview (in year and month). ***RX010*** may vary from one digit compared to real age at the exact day of interview, as the day of birth is not known.

RX020: Age at the end of income reference period

A household member coded "80" is 80 or over

A household member coded "-1" is born between the end of income reference period and the data collection

RX030: Household identification number

RX030 = ***DB030***

RX040: Work intensity

Continuous variable from 0 to 1 (People older than 59 has *WORK_INT = 99*)

Based on persons aged 18-64 (students excluded)

The work intensity status is assigned to each household member

RX050: Low work intensity status (new definition)

0= no LWI, 1= LWI, 2= N/A

RX060: Severely materially and socially deprived household

0=not severely deprived, 1= severely deprived

RX070: At risk of poverty or social exclusion (new definition)

1st digit= at risk of poverty, 2nd digit= severely materially deprived, 3rd digit= low work intensity (0 when LWI in (0,2) 1 when LWI=1)

HX010: Change rate

Conversion factor: euro / national currency

It is the average exchange rate based on the year prior to the survey

The value is missing when the national currency is the Euro

Income data (euro) i. e. ***HY020*** * ***HX010*** = income data (national currency)

Should you wish to compute the amount in ppp (purchasing power parities), apply:

- For countries members of the euro area: *HY020/ ppp*
- For countries not members of the euro area: *HY020*HX010/ ppp*

The ppp values of each country can be found in the XL-file included in the UDB documentation on CIRCABC.

HX040: Household size

Number of current household members

In practise; number of person pertaining to the same household having an observation in the R-file (personal register file)

HX050: Equivalised household size

Calculation of equivalised household size

Let us consider:

- *HM14+* : number of household members aged 14 and over (at the end of income reference period)
- *HM13-* : number of household members aged 13 or less(at the end of income reference period)

The equivalised household size is defined as:

*HX050= 1+ 0.5 * (HM14+ -1) + 0.3 * HM13-*

HX060: Household type

5 - One person household
6 - 2 adults, no dependent children, both adults under 65 years

7 - 2 adults, no dependent children, at least one adult 65 years or more
8 - Other households without dependent children
9 - Single parent household, one or more dependent children
10 - 2 adults, one dependent child
11 - 2 adults, two dependent children
12 - 2 adults, three or more dependent children
13 - Other households with dependent children
16- Other (these household are excluded from Laeken indicators calculation)

Where dependent children is defined as:

- Household members aged 17 or less
- Household members aged between 18 and 24; economically inactive and living with at least one parent.

HX070: Tenure status

HX070 is derived from ***HH021*** and is used to calculate all "by tenure status" LAEKEN indicators

if *HH021* in (1,2,5) then *TENSTA* =1;

else if *HH021* in (3,4) then *TENSTA* =2;

else *TENSTA*=.;

HX080: Poverty indicator

HX080*= 0* when ***HX090*** >= at risk of poverty threshold (60% of MEDIAN ***HX090***)

HX080*= 1* when ***HX090*** < at risk of poverty threshold (60% of MEDIAN ***HX090***)

HX090: Equivalised disposable income

HX090= (***HY020*** / ***HX050***)

HX120: Overcrowded household

0=not overcrowded, 1=overcrowded,.=N/A

PX010: Change rate

Conversion factor: euro / national currency

It is the average exchange rate based on the year prior to the survey

The value is missing when the national currency is the Euro

Income data (euros) * ***PX010*** = income data (national currency)

PX020: Age at the end of the income reference period

A household member coded "80" has 80 or over

A household member coded "-1" is born between the end of income reference period and the data collection

PX030: Household identification number

PX030 = DB030

PX040: Selected respondent status

PX040 = RB245

PX050: Activity status

1 =
2 = SAL
3 = NSAL
4 = other employed (when time of SAL and NSAL is > ½ of total time calendar)
5 = unemployed
6 = retired
7 = inactive
8 = other inactive (when time of unemployed, retirement and inactivity is > ½ of total time calendar)

Income flags

1) ***HY040N, HY050N, HY060N, HY070N, HY080N, HY081N, HY090N, HY110N, HY130N, HY131N, HY170N, PY010N, PY020N, PY021N, PY050N, PY070N, PY080N, PY090N, PY100N, PY110N, PY120N, PY130N, PY140N***:

- *VAR_F* contains 2 digits: 1st digit=collected net or gross + 2nd digit=type of net recorded value
- *VAR_I* contains: first digit=imputation method + from the 2nd digit=imputation factor

2) ***HY100N, HY120N, HY140N, HY145N, HY040G, HY050G, HY060G, HY070G, HY080G, HY081G, HY090G, HY100G, HY110G, HY120G, HY130G, HY140G, HY170G, HY010, HY020, HY022, HY023, PY035N, PY010G, PY020G, PY021G, PY030G, PY035G, PY050G, PY070G, PY080G, PY090G, PY100G, PY110G, PY120G, PY130G, PY140G***:

- *VAR_F* contains only collected net or gross.
- *VAR_I* contains: 1st digit=imputation method + from the 2nd digit=imputation factor. If *VAR_F* = "-" or "0" then *VAR_I*=.

Definition in Doc65:

Imputation factor = (collected value / recorded value) * 100

Example:

Collected value = 912

Recorded value = 1000

Imputation factor to be recorded: 091

4. VARIABLE CONTENT

D-file variables

Position	Variable
1	DB010
2	DB020
3	DB030
4	DB040
6	DB050
8	DB060
10	DB062
12	DB070
14	DB075
20	DB076
16	DB090
18	DB100
5	DB040_F
7	DB050_F
9	DB060_F
11	DB062_F
13	DB070_F
15	DB075_F
17	DB090_F
19	DB100_F

H-file variables

Position	Variable
1	HB010
2	HB020
3	HB030
4	HB050
6	HB060
8	HB070
10	HB100
12	HB110
14	HB120
16	HB130
5	HB050_F

Position	Variable
7	HB060_F
9	HB070_F
11	HB100_F
13	HB110_F
15	HB120_F
17	HB130_F
189	HCH010
191	HCH020
193	HCH030
195	HCH040
190	HCH010_F
192	HCH020_F
194	HCH030_F
196	HCH040_F
181	HD080
197	HD100
199	HD110
201	HD120
203	HD140
205	HD150
207	HD160
209	HD170
211	HD180
213	HD190
215	HD200
217	HD210
219	HD220
221	HD240
182	HD080_F
198	HD100_F
200	HD110_F
202	HD120_F
204	HD140_F
206	HD150_F
208	HD160_F
210	HD170_F
212	HD180_F
214	HD190_F
216	HD200_F
218	HD210_F

Position	Variable
220	HD220_F
222	HD240_F
167	HH010
169	HH021
171	HH030
173	HH050
175	HH060
177	HH070
179	HH071
168	HH010_F
170	HH021_F
172	HH030_F
174	HH050_F
176	HH060_F
178	HH070_F
180	HH071_F
183	HI010
185	HI020
187	HI030
184	HI010_F
186	HI020_F
188	HI030_F
223	HK010
225	HK020
224	HK010_F
226	HK020_F
145	HS011
147	HS021
149	HS022
151	HS031
153	HS040
155	HS050
157	HS060
159	HS090
161	HS110
163	HS120
165	HS150
146	HS011_F
148	HS021_F
150	HS022_F

Position	Variable
152	HS031_F
154	HS040_F
156	HS050_F
158	HS060_F
160	HS090_F
162	HS110_F
164	HS120_F
166	HS150_F
227	HX010
228	HX040
229	HX050
230	HX060
231	HX070
232	HX080
233	HX090
234	HX120
18	HY010
21	HY020
24	HY022
27	HY023
19	HY010_F
20	HY010_I
22	HY020_F
23	HY020_I
25	HY022_F
26	HY022_I
28	HY023_F
29	HY023_I
77	HY040G
78	HY040G_F
79	HY040G_I
30	HY040N
31	HY040N_F
32	HY040N_I
80	HY050G
81	HY050G_F
82	HY050G_I
33	HY050N
34	HY050N_F
35	HY050N_I

Position	Variable
121	HY051G
122	HY051G_F
123	HY052G
124	HY052G_F
125	HY053G
126	HY053G_F
127	HY054G
128	HY054G_F
83	HY060G
84	HY060G_F
85	HY060G_I
36	HY060N
37	HY060N_F
38	HY060N_I
129	HY061G
130	HY061G_F
131	HY062G
132	HY062G_F
133	HY063G
134	HY063G_F
135	HY064G
136	HY064G_F
86	HY070G
87	HY070G_F
88	HY070G_I
39	HY070N
40	HY070N_F
41	HY070N_I
137	HY071G
138	HY071G_F
139	HY072G
140	HY072G_F
141	HY073G
142	HY073G_F
143	HY074G
144	HY074G_F
89	HY080G
90	HY080G_F
91	HY080G_I
42	HY080N

Position	Variable
43	HY080N_F
44	HY080N_I
92	HY081G
93	HY081G_F
94	HY081G_I
45	HY081N
46	HY081N_F
47	HY081N_I
95	HY090G
96	HY090G_F
97	HY090G_I
48	HY090N
49	HY090N_F
50	HY090N_I
98	HY100G
99	HY100G_F
100	HY100G_I
51	HY100N
52	HY100N_F
53	HY100N_I
101	HY110G
102	HY110G_F
103	HY110G_I
54	HY110N
55	HY110N_F
56	HY110N_I
104	HY120G
105	HY120G_F
106	HY120G_I
57	HY120N
58	HY120N_F
59	HY120N_I
119	HY121G
120	HY121G_F
75	HY121N
76	HY121N_F
107	HY130G
108	HY130G_F
109	HY130G_I
60	HY130N

Position	Variable
61	HY130N_F
62	HY130N_I
110	HY131G
111	HY131G_F
112	HY131G_I
63	HY131N
64	HY131N_F
65	HY131N_I
113	HY140G
114	HY140G_F
115	HY140G_I
66	HY140N
67	HY140N_F
68	HY140N_I
69	HY145N
70	HY145N_F
71	HY145N_I
116	HY170G
117	HY170G_F
118	HY170G_I
72	HY170N
73	HY170N_F
74	HY170N_I

R-file variables

Position	Variable
1	RB010
2	RB020
3	RB030
54	RB032
4	RB050
6	RB051
8	RB065
10	RB066
16	RB080
12	RB081
14	RB082
18	RB090
20	RB200

Position	Variable
22	RB211
24	RB220
26	RB230
28	RB240
30	RB245
32	RB250
34	RB280
36	RB285
38	RB290
55	RB032_F
5	RB050_F
7	RB051_F
9	RB065_F
11	RB066_F
17	RB080_F
13	RB081_F
15	RB082_F
19	RB090_F
21	RB200_F
23	RB211_F
25	RB220_F
27	RB230_F
29	RB240_F
31	RB245_F
33	RB250_F
35	RB280_F
37	RB285_F
39	RB290_F
96	RCH010
98	RCH020
97	RCH010_F
99	RCH020_F
56	RG_1
58	RG_2
60	RG_3
62	RG_4
64	RG_5
66	RG_6
68	RG_7
70	RG_8

Position	Variable
72	RG_9
74	RG_10
76	RG_11
78	RG_12
80	RG_13
82	RG_14
84	RG_15
86	RG_16
88	RG_17
90	RG_18
92	RG_19
94	RG_20
75	RG_10_F
77	RG_11_F
79	RG_12_F
81	RG_13_F
83	RG_14_F
85	RG_15_F
87	RG_16_F
89	RG_17_F
91	RG_18_F
93	RG_19_F
57	RG_1_F
95	RG_20_F
59	RG_2_F
61	RG_3_F
63	RG_4_F
65	RG_5_F
67	RG_6_F
69	RG_7_F
71	RG_8_F
73	RG_9_F
100	RK010
102	RK020
104	RK030
106	RK040
108	RK050
110	RK060
112	RK070
114	RK080

Position	Variable
101	RK010_F
103	RK020_F
105	RK030_F
107	RK040_F
109	RK050_F
111	RK060_F
113	RK070_F
115	RK080_F
40	RL010
42	RL020
44	RL030
46	RL040
48	RL050
50	RL060
52	RL070
41	RL010_F
43	RL020_F
45	RL030_F
47	RL040_F
49	RL050_F
51	RL060_F
53	RL070_F
116	RX010
117	RX020
118	RX030
119	RX040
120	RX050
121	RX060
122	RX070

P-file variables

Position	Variable
1	PB010
2	PB020
3	PB030
4	PB040
6	PB060
8	PB100
10	PB110
12	PB120

Position	Variable
14	PB140
16	PB150
18	PB160
20	PB170
22	PB180
24	PB190
26	PB200
28	PB205
32	PB230
34	PB240
30	PB270
5	PB040_F
7	PB060_F
9	PB100_F
11	PB110_F
13	PB120_F
15	PB140_F
17	PB150_F
19	PB160_F
21	PB170_F
23	PB180_F
25	PB190_F
27	PB200_F
29	PB205_F
33	PB230_F
35	PB240_F
31	PB270_F
255	PD020
257	PD030
259	PD050
261	PD060
263	PD070
265	PD080
256	PD020_F
258	PD030_F
260	PD050_F
262	PD060_F
264	PD070_F
266	PD080_F
36	PE010
38	PE021
40	PE041
37	PE010_F
39	PE021_F
41	PE041_F
118	PH010
120	PH020

Position	Variable
122	PH030
124	PH040
126	PH050
128	PH060
130	PH070
119	PH010_F
121	PH020_F
123	PH030_F
125	PH040_F
127	PH050_F
129	PH060_F
131	PH070_F
271	PK010
273	PK020
275	PK030
272	PK010_F
274	PK020_F
276	PK030_F
44	PL016
42	PL032
54	PL060
56	PL073
58	PL074
60	PL075
62	PL076
64	PL080
66	PL085
68	PL086
70	PL087
72	PL088
74	PL089
76	PL090
78	PL100
84	PL141
86	PL145
88	PL150
90	PL200
116	PL271
45	PL016_F
43	PL032_F
46	PL040A
47	PL040A_F
48	PL040B
49	PL040B_F
50	PL051A
51	PL051A_F
52	PL051B

Position	Variable
53	PL051B_F
55	PL060_F
57	PL073_F
59	PL074_F
61	PL075_F
63	PL076_F
65	PL080_F
67	PL085_F
69	PL086_F
71	PL087_F
73	PL088_F
75	PL089_F
77	PL090_F
79	PL100_F
80	PL111A
81	PL111A_F
82	PL111B
83	PL111B_F
85	PL141_F
87	PL145_F
89	PL150_F
91	PL200_F
92	PL211A
93	PL211A_F
94	PL211B
95	PL211B_F
96	PL211C
97	PL211C_F
98	PL211D
99	PL211D_F
100	PL211E
101	PL211E_F
102	PL211F
103	PL211F_F
104	PL211G
105	PL211G_F
106	PL211H
107	PL211H_F
108	PL211I
109	PL211I_F
110	PL211J
111	PL211J_F
112	PL211K
113	PL211K_F
114	PL211L
115	PL211L_F
117	PL271_F

Position	Variable
267	PW010
269	PW191
268	PW010_F
270	PW191_F
277	PX010
278	PX020
279	PX030
280	PX040
281	PX050
168	PY010G
169	PY010G_F
170	PY010G_I
132	PY010N
133	PY010N_F
134	PY010N_I
171	PY020G
172	PY020G_F
173	PY020G_I
135	PY020N
136	PY020N_F
137	PY020N_I
174	PY021G
175	PY021G_F
176	PY021G_I
138	PY021N
139	PY021N_F
140	PY021N_I
177	PY030G
178	PY030G_F
179	PY030G_I
180	PY035G
181	PY035G_F
182	PY035G_I
141	PY035N
142	PY035N_F
143	PY035N_I
183	PY050G
184	PY050G_F
185	PY050G_I
144	PY050N
145	PY050N_F
146	PY050N_I
186	PY080G
187	PY080G_F
188	PY080G_I
147	PY080N
148	PY080N_F

Position	Variable
149	PY080N_I
189	PY090G
190	PY090G_F
191	PY090G_I
150	PY090N
151	PY090N_F
152	PY090N_I
207	PY091G
208	PY091G_F
209	PY092G
210	PY092G_F
211	PY093G
212	PY093G_F
213	PY094G
214	PY094G_F
192	PY100G
193	PY100G_F
194	PY100G_I
153	PY100N
154	PY100N_F
155	PY100N_I
215	PY101G
216	PY101G_F
217	PY102G
218	PY102G_F
219	PY103G
220	PY103G_F
221	PY104G
222	PY104G_F
195	PY110G
196	PY110G_F
197	PY110G_I
156	PY110N
157	PY110N_F
158	PY110N_I
223	PY111G
224	PY111G_F
225	PY112G
226	PY112G_F
227	PY113G
228	PY113G_F
229	PY114G
230	PY114G_F
198	PY120G
199	PY120G_F
200	PY120G_I
159	PY120N

Position	Variable
160	PY120N_F
161	PY120N_I
231	PY121G
232	PY121G_F
233	PY122G
234	PY122G_F
235	PY123G
236	PY123G_F
237	PY124G
238	PY124G_F
201	PY130G
202	PY130G_F
203	PY130G_I
162	PY130N
163	PY130N_F
164	PY130N_I
239	PY131G
240	PY131G_F
241	PY132G
242	PY132G_F
243	PY133G
244	PY133G_F
245	PY134G
246	PY134G_F
204	PY140G
205	PY140G_F
206	PY140G_I
165	PY140N
166	PY140N_F
167	PY140N_I
247	PY141G
248	PY141G_F
249	PY142G
250	PY142G_F
251	PY143G
252	PY143G_F
253	PY144G
254	PY144G_F