EUROPEAN COMMISSION
EUROSTAT

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

SILC DISCLOSURE CONTROL RULES

YEAR 2022

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 2022 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 and socially 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

NOT DISSEMINATED 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: Region of residence
→ 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

DB060: PSU-1 (first stage)

→ Randomised.

DB062: PSU-2 (second stage)

→ Randomised.

2. COUNTRY SPECIFIC RULES

CH

DB050: Primary strata variable added.

CZ

No randomisation of PSU1 and PSU2.

DB040: Region

→ NUTS2.

DE

<u>Subsample of 90%</u>

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

DB040: Region
→ NUTS2.

FI

RX020, PX020: Age perturbation is applied

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

FR

DB040:
→ Variable DB040 must not be disseminated.

The sample size of the EU-SILC survey, around 18,000 respondent household in France, and the number of regions, 26, make it impossible to calculate reliable poverty indicators for each region. This is why INSEE has developed a small area estimation method, which provides micro-data (weights) for each region, these weighting variables (named RB051_XX, XX figuring each NUTS2 code), applied to the whole sample, are used to calculate the indicators at regional level.
The regional weights are used to calculate 6 indicators:

- The three components of the AROPE indicator
- Their union (=AROPE)
- Their intersection
- Non-severe material and social deprivation

The risk of disseminating DB040 would be that users would use this variable for their analyses rather than the regional weights.

RB051: display regional weights

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

For Ireland, please note that there was a break in series since SILC 2020. The changes in regulation across household surveys introduced by Regulation 2019/1700 provided an opportunity to review and revise SILC methodology throughout the collection, processing, and analysis phases of SILC production in Ireland. These changes were introduced for the 2020 SILC survey, and therefore the year 2020 represents a break in series for the survey.

PE041 (new 2021): Highest ISCED Level Attained
→ Group by 1 digit ISCED levels:

- ISCED 0 No formal education or below ISCED 1

- ISCED 1 Primary education
- ISCED 2 Lower secondary education
- ISCED 3 Upper secondary education
- ISCED 4 Post-secondary non-tertiary education
- ISCED 5 Short-cycle tertiary education
- ISCED 6 Bachelor's or equivalent level
- ISCED 7 Master's or equivalent level
- ISCED 8 Doctoral or equivalent level

PE021 Level of current/most recent formal education or training activity

→ Group by 1 digit ISCED levels:

- ISCED 0 No formal education or below ISCED 1
- ISCED 1 Primary education
- ISCED 2 Lower secondary education
- ISCED 3 Upper secondary education
- ISCED 4 Post-secondary non-tertiary education
- ISCED 5 Short-cycle tertiary education
- ISCED 6 Bachelor's or equivalent level
- ISCED 7 Master's or equivalent level
- ISCED 8 Doctoral or equivalent level

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

→ > 55 = 55.

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, HH070*** and ***HH071*** are rounded to the nearest 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

RB081: Age in completed years → removed

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

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

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)
→ **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)

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+"*

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, or 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
→ Bottom-coded at Reference year - 80 years
→ Top-coded at Reference year - 4 years

RX010, RB082: Age at the time of interview

→ Not provided.

RX020, PX020, RB081: Age at the end of income reference period

→ Not provided.

Checking for unique combinations, outlier detection and top/bottom coding

1. Merge all variables into a single dataset
2. Produce an aggregate count for each combination of the following variables:
    i. Sex (RB090)
    ii. Year of birth (RB080) after grouping into 5-year age groups and top- and bottom-coding
    iii. Degree of urbanisation (DB100)

e.g.

Sex (RB090)	Year of birth (RB080)	Degree of urbanisation (DB100)	Count
Male	1942 or before	Rural areas	4
Female	1942 or before	Rural areas	7
…	…	…	…

3. If a combination has a count of 1 or 2, then the combination is considered a unique combination.
4. For each unique combination, perform outlier detection for each of the following continuous/quantitative variables:

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.

An outlier is considered as a value from a continuous/quantitative variable which lies outside the interval:

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

Note: Outlier detection is only required for unique combinations. If there are no unique combinations, then there is no need to perform outlier detection.

5. For each continuous/quantitative variable of each unique combination, if an outlier value is detected, perform:

→ Top-coding to the Upper Risk Threshold, and
→ Bottom-coding to the Lower Risk Threshold.

NL

DB040: Region
DB100: Degree of urbanisation

PL

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

PT

No randomisation of PSU1 and PSU2.

DB040: Region
→ NUTS2.

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

RB285: Duration of stay in the country of residence in completed years
→ Grouped in 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 = 65

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 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 (new definition)

Continuous variable from 0 to 1 (People older than 64 has WORK_INT =99)

Based on persons aged 18-64 (but excluding students aged 18-24 and people who are retired according to their self-defined current economic status or who receive any pension (except survivors pension), as well as people in the age bracket 60-64 who are inactive and living in a household where the main income is pensions)

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 and socially 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_IF* 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_IF* contains: 1st digit=imputation method + from the 2nd digit=imputation factor. If *VAR_F* = "-" or "0" then *VAR_IF*=.

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
21	DB076_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
7	HB060_F

Position	Variable
9	HB070_F
11	HB100_F
13	HB110_F
15	HB120_F
17	HB130_F
203	HD080
233	HD225
204	HD080_F
234	HD225_F
189	HH010
191	HH021
193	HH030
195	HH050
197	HH060
199	HH070
201	HH071
190	HH010_F
192	HH021_F
194	HH030_F
196	HH050_F
198	HH060_F
200	HH070_F
202	HH071_F
18	HI010
211	HI012
20	HI020
22	HI030
24	HI040
19	HI010_F
212	HI012_F
21	HI020_F
23	HI030_F
25	HI040_F
235	HI130G
236	HI130G_F
237	HI130G_IF
238	HI140G
239	HI140G_F
240	HI140G_IF
167	HS011
169	HS021

Position	Variable
171	HS022
173	HS031
175	HS040
177	HS050
179	HS060
181	HS090
183	HS110
185	HS120
187	HS150
205	HS200
207	HS210
209	HS220
168	HS011_F
170	HS021_F
172	HS022_F
174	HS031_F
176	HS040_F
178	HS050_F
180	HS060_F
182	HS090_F
184	HS110_F
186	HS120_F
188	HS150_F
206	HS200_F
208	HS210_F
210	HS220_F
241	HX010
242	HX040
243	HX050
244	HX060
245	HX070
246	HX080
247	HX090
248	HX120
26	HY010
29	HY020
32	HY022
35	HY023
27	HY010_F
28	HY010_IF
30	HY020_F

Position	Variable
31	HY020_IF
33	HY022_F
34	HY022_IF
36	HY023_F
37	HY023_IF
86	HY040G
87	HY040G_F
88	HY040G_IF
38	HY040N
39	HY040N_F
40	HY040N_IF
89	HY050G
90	HY050G_F
91	HY050G_IF
41	HY050N
42	HY050N_F
43	HY050N_IF
131	HY051G
132	HY051G_F
133	HY051G_IF
134	HY052G
135	HY052G_F
136	HY052G_IF
137	HY053G
138	HY053G_F
139	HY053G_IF
140	HY054G
141	HY054G_F
142	HY054G_IF
92	HY060G
93	HY060G_F
94	HY060G_IF
44	HY060N
45	HY060N_F
46	HY060N_IF
143	HY061G
144	HY061G_F
145	HY061G_IF
146	HY062G
147	HY062G_F
148	HY062G_IF

Position	Variable
149	HY063G
150	HY063G_F
151	HY063G_IF
152	HY064G
153	HY064G_F
154	HY064G_IF
95	HY070G
96	HY070G_F
97	HY070G_IF
47	HY070N
48	HY070N_F
49	HY070N_IF
155	HY071G
156	HY071G_F
157	HY071G_IF
158	HY072G
159	HY072G_F
160	HY072G_IF
161	HY073G
162	HY073G_F
163	HY073G_IF
164	HY074G
165	HY074G_F
166	HY074G_IF
98	HY080G
99	HY080G_F
100	HY080G_IF
50	HY080N
51	HY080N_F
52	HY080N_IF
101	HY081G
102	HY081G_F
103	HY081G_IF
53	HY081N
54	HY081N_F
55	HY081N_IF
104	HY090G
105	HY090G_F
106	HY090G_IF
56	HY090N
57	HY090N_F

Position	Variable
58	HY090N_IF
107	HY100G
108	HY100G_F
109	HY100G_IF
59	HY100N
60	HY100N_F
61	HY100N_IF
110	HY110G
111	HY110G_F
112	HY110G_IF
62	HY110N
63	HY110N_F
64	HY110N_IF
113	HY120G
114	HY120G_F
115	HY120G_IF
65	HY120N
66	HY120N_F
67	HY120N_IF
128	HY121G
129	HY121G_F
130	HY121G_IF
83	HY121N
84	HY121N_F
85	HY121N_IF
116	HY130G
117	HY130G_F
118	HY130G_IF
68	HY130N
69	HY130N_F
70	HY130N_IF
119	HY131G
120	HY131G_F
121	HY131G_IF
71	HY131N
72	HY131N_F
73	HY131N_IF
122	HY140G
123	HY140G_F
124	HY140G_IF
74	HY140N

Position	Variable
75	HY140N_F
76	HY140N_IF
77	HY145N
78	HY145N_F
79	HY145N_IF
213	HY150_1
214	HY150_2
215	HY150_3
216	HY150_4
217	HY150_1_F
218	HY150_2_F
219	HY150_3_F
220	HY150_4_F
221	HY155G_1
222	HY155G_2
223	HY155G_3
224	HY155G_4
225	HY155G_1_F
229	HY155G_1_IF
226	HY155G_2_F
230	HY155G_2_IF
227	HY155G_3_F
231	HY155G_3_IF
228	HY155G_4_F
232	HY155G_4_IF
125	HY170G
126	HY170G_F
127	HY170G_IF
80	HY170N
81	HY170N_F
82	HY170N_IF

R-file variables

Position	Variable
1	RB010
2	RB020
3	RB030
48	RB032
4	RB050
10	RB080

Position	Variable
6	RB081
8	RB082
12	RB090
14	RB200
16	RB211
18	RB220
20	RB230
22	RB240
24	RB245
26	RB250
28	RB280
30	RB285
32	RB290
49	RB032_F
5	RB050_F
11	RB080_F
7	RB081_F
9	RB082_F
13	RB090_F
15	RB200_F
17	RB211_F
19	RB220_F
21	RB230_F
23	RB240_F
25	RB245_F
27	RB250_F
29	RB280_F
31	RB285_F
33	RB290_F
50	RG_1
52	RG_2
54	RG_3
56	RG_4
58	RG_5
60	RG_6
62	RG_7
64	RG_8
66	RG_9
68	RG_10
70	RG_11
72	RG_12

Position	Variable
74	RG_13
76	RG_14
78	RG_15
80	RG_16
82	RG_17
84	RG_18
86	RG_19
88	RG_20
90	RG_21
92	RG_22
69	RG_10_F
71	RG_11_F
73	RG_12_F
75	RG_13_F
77	RG_14_F
79	RG_15_F
81	RG_16_F
83	RG_17_F
85	RG_18_F
87	RG_19_F
51	RG_1_F
89	RG_20_F
91	RG_21_F
93	RG_22_F
53	RG_2_F
55	RG_3_F
57	RG_4_F
59	RG_5_F
61	RG_6_F
63	RG_7_F
65	RG_8_F
67	RG_9_F
34	RL010
36	RL020
38	RL030
40	RL040
42	RL050
44	RL060
46	RL070
94	RL080
35	RL010_F

Position	Variable
37	RL020_F
39	RL030_F
41	RL040_F
43	RL050_F
45	RL060_F
47	RL070_F
95	RL080_F
96	RX010
97	RX020
98	RX030
99	RX040
100	RX050
101	RX060
102	RX070

P-file variables

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

Position	Variable
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
279	PD020
281	PD030
283	PD050
285	PD060
287	PD070
289	PD080
280	PD020_F
282	PD030_F
284	PD050_F
286	PD060_F
288	PD070_F
290	PD080_F
36	PE010
38	PE021
40	PE041
37	PE010_F
39	PE021_F
41	PE041_F
118	PH010
120	PH020
122	PH030
124	PH040
126	PH050
377	PH051
128	PH060
130	PH070
379	PH071
295	PH080
297	PH090

Position	Variable
299	PH100
315	PH101
317	PH111
319	PH121
305	PH122
321	PH131
307	PH132
309	PH142
323	PH151
311	PH152
313	PH180
119	PH010_F
121	PH020_F
123	PH030_F
125	PH040_F
127	PH050_F
378	PH051_F
129	PH060_F
131	PH070_F
380	PH071_F
296	PH080_F
298	PH090_F
300	PH100_F
316	PH101_F
301	PH110A
302	PH110A_F
303	PH110B
304	PH110B_F
318	PH111_F
320	PH121_F
306	PH122_F
322	PH131_F
308	PH132_F
310	PH142_F
324	PH151_F
312	PH152_F
314	PH180_F
44	PL016
42	PL032
54	PL060
56	PL073

Position	Variable
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
375	PL220
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
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

Position	Variable
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
376	PL220_F
117	PL271_F
381	PMH010
382	PMH010_F
341	PS010
367	PS011
343	PS020
369	PS021
345	PS030
371	PS031

Position	Variable
347	PS040
349	PS041
351	PS042
353	PS050
355	PS060
357	PS070
359	PS080
365	PS102
361	PS110
363	PS111
342	PS010_F
368	PS011_F
344	PS020_F
370	PS021_F
346	PS030_F
372	PS031_F
373	PS040B
374	PS040B_F
348	PS040_F
350	PS041_F
352	PS042_F
354	PS050_F
356	PS060_F
358	PS070_F
360	PS080_F
366	PS102_F
362	PS110_F
364	PS111_F
339	PW005
291	PW010
327	PW030
335	PW090
331	PW120
329	PW160
337	PW180
293	PW191
333	PW230
325	PW241
340	PW005_F
292	PW010_F
328	PW030_F

Position	Variable
336	PW090_F
332	PW120_F
330	PW160_F
338	PW180_F
294	PW191_F
334	PW230_F
326	PW241_F
383	PX010
384	PX020
385	PX030
386	PX040
387	PX050
168	PY010G
169	PY010G_F
170	PY010G_IF
132	PY010N
133	PY010N_F
134	PY010N_IF
171	PY020G
172	PY020G_F
173	PY020G_IF
135	PY020N
136	PY020N_F
137	PY020N_IF
174	PY021G
175	PY021G_F
176	PY021G_IF
138	PY021N
139	PY021N_F
140	PY021N_IF
177	PY030G
178	PY030G_F
179	PY030G_IF
180	PY035G
181	PY035G_F
182	PY035G_IF
141	PY035N
142	PY035N_F
143	PY035N_IF
183	PY050G
184	PY050G_F

Position	Variable
185	PY050G_IF
144	PY050N
145	PY050N_F
146	PY050N_IF
186	PY080G
187	PY080G_F
188	PY080G_IF
147	PY080N
148	PY080N_F
149	PY080N_IF
189	PY090G
190	PY090G_F
191	PY090G_IF
150	PY090N
151	PY090N_F
152	PY090N_IF
207	PY091G
208	PY091G_F
209	PY091G_IF
210	PY092G
211	PY092G_F
212	PY092G_IF
213	PY093G
214	PY093G_F
215	PY093G_IF
216	PY094G
217	PY094G_F
218	PY094G_IF
192	PY100G
193	PY100G_F
194	PY100G_IF
153	PY100N
154	PY100N_F
155	PY100N_IF
219	PY101G
220	PY101G_F
221	PY101G_IF
222	PY102G
223	PY102G_F
224	PY102G_IF
225	PY103G

Position	Variable
226	PY103G_F
227	PY103G_IF
228	PY104G
229	PY104G_F
230	PY104G_IF
195	PY110G
196	PY110G_F
197	PY110G_IF
156	PY110N
157	PY110N_F
158	PY110N_IF
231	PY111G
232	PY111G_F
233	PY111G_IF
234	PY112G
235	PY112G_F
236	PY112G_IF
237	PY113G
238	PY113G_F
239	PY113G_IF
240	PY114G
241	PY114G_F
242	PY114G_IF
198	PY120G
199	PY120G_F
200	PY120G_IF
159	PY120N
160	PY120N_F
161	PY120N_IF
243	PY121G
244	PY121G_F
245	PY121G_IF
246	PY122G
247	PY122G_F
248	PY122G_IF
249	PY123G
250	PY123G_F
251	PY123G_IF
252	PY124G
253	PY124G_F
254	PY124G_IF

Position	Variable
201	PY130G
202	PY130G_F
203	PY130G_IF
162	PY130N
163	PY130N_F
164	PY130N_IF
255	PY131G
256	PY131G_F
257	PY131G_IF
258	PY132G
259	PY132G_F
260	PY132G_IF
261	PY133G
262	PY133G_F
263	PY133G_IF
264	PY134G
265	PY134G_F
266	PY134G_IF
204	PY140G
205	PY140G_F
206	PY140G_IF
165	PY140N
166	PY140N_F
167	PY140N_IF
267	PY141G
268	PY141G_F
269	PY141G_IF
270	PY142G
271	PY142G_F
272	PY142G_IF
273	PY143G
274	PY143G_F
275	PY143G_IF
276	PY144G
277	PY144G_F
278	PY144G_IF