

QUALITY REPORT BELGIAN SILC 2019

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INTRODUCTION

This report contains a description of the accuracy, precision and comparability of the Belgian SILC 2019-surveydata. It is structured following the guidelines in the commission regulation (EC) no. 28/2004. This results in three chapters:

- Indicators
- Accuracy
- Comparability

The Questionnaires can be found on the website:

<https://statbel.fgov.be/fr/themes/menages/pauvrete-et-conditions-de-vie/risque-de-pauvrete-ou-dexclusion-sociale#documents> for the French version or

<https://statbel.fgov.be/nl/themas/huishoudens/armoede-en-levensomstandigheden/risico-op-armoede-sociale-uitsluiting#documents> for the Dutch one.

Please note that the results of SILC 2019 introduce a complete break in time series because of:

- New way of weight calculations (cf. below)
- New sources for income variables (cf. below)
- Fundamental change of the questionnaire (cf. below)

More information regarding the new weights:

https://statbel.fgov.be/sites/default/files/files/documents/Analyse/FR/11_FR_Weging_SILC.pdf.

More information regarding the use of registers:

<https://statbel.fgov.be/sites/default/files/files/documents/Analyse/FR/Analyse%20SILC-Donn%C3%A9es%20fiscales.pdf>

1. INDICATORS

Explanation on the calculation of the common cross-sectional EU indicators and equivalised disposable income can be found in document EU-SILC 131-rev/04.

The SAS-applications to calculate the indicators were provided by EUROSTAT. The input data files of the calculation process (household register file, personal register file, household data file and personal data file) are the output files of the Belgium EU-SILC 2019 survey.

An interactive overview of the common cross-sectional EU indicators based on the cross-sectional component of EU-SILC and equivalised disposable income can be found on the Eurostat website: <http://ec.europa.eu/eurostat/data/database> . Additional information for Belgium can be found on the website of Statistics Belgium:

<https://statbel.fgov.be/fr/themes/menages/pauvrete-et-conditions-de-vie>

<https://statbel.fgov.be/nl/themas/huishoudens/armoede-en-levensomstandigheden>

2. ACCURACY

2.1. SAMPLING DESIGN

2.1.1. TYPE OF SAMPLING

The Belgian EU-SILC 2019 survey is based on a stratified 2-stage sampling scheme drawn in 2004, followed by rotation since 2005. Until SILC 2018 rotation allowed to replace roughly one fourth of the sample each year. With SILC 2019 a first step was made towards a 6-year panel instead of a 4-year panel. Normally the rotational group started in 2015 would have been dropped for SILC 2019. However, this group remained in the survey as the fifth wave. Hence, households (ignoring split-offs) participating in 2019 have been drawn for participation in 2015, 2016, 2017, 2018 or 2019.

2.1.2. STRATIFICATION

The main stratification criterion is the NUTS2 level. The 11 *sampling strata* are the 10 Belgian provinces (5 in Flanders – coded BE21-BE25 – and 5 in Wallonia – coded BE31 to BE35) and the Brussels Capital Region (BE10).

Further implicit stratification is obtained by sorting PSUs (sub-municipalities) on mean income and sorting SSUs (households) in selected PSUs on age of reference person, as explained in the next section.

2.1.3. SAMPLING UNITS AND 2-STAGE SAMPLING IN 2004

In 2004, when organizing EU-SILC for the first time (ignoring the pilot survey in 2003), 2-stage sampling has been applied in each sampling stratum.

Stage 1 – Primary Sampling Units

The primary sampling units (PSUs) in stage 1 are the municipalities, or parts thereof in the larger ones. In each stratum, the PSUs in the frame are first descendingly sorted by average income; next, a fixed number of times a PSU is drawn according to a systematic PPS (*probability proportional to size*) selection scheme, where size is measured as the number of private households. This systematic sampling method generally causes some PSUs being selected repeatedly (e.g. Schaerbeek, a rather large municipality in stratum BE10, turns out to be drawn 6 times). In total, i.e. in all 11 sampling strata together, 275 PSU draws were made in 2004, once and for all (i.e. for the whole duration of EU-SILC).

Stage 2 – Secondary Sampling Units

The *secondary sampling units* (SSUs) in stage 2 are private households. According to each single PSU draw, a group (generally of fixed size) of households is selected in this stage; notice that a *group* of households corresponds to each PSU *draw*.

In 2004, 40 households have been selected for each PSU draw (i.e. in each group); e.g. in Schaerbeek, 6 times 40 households were drawn. Systematic selection of households has been applied, after sorting the households in selected PSUs by age of reference person. Within each group, the selected households were numbered 1 to 40; households 1-10 constitute the first *rotational group* or *replication*, households 11-20 constitute the second rotational group or replication, and so on. The first replication was meant to participate in 2004 only, the second until 2005, and so on.

The initial household sample in 2004 was *self-weighting*, by the combination of (systematic) PPS sampling of sub-municipalities (PSUs) – size of PSUs being the number of private households – and (systematic) sampling of private households (SSUs), as explained.

2.1.4. RENEWAL OF THE SAMPLE BY ROTATION, SINCE 2005

Since 2005, a rotation scheme has been applied.

SILC 2005 - SILC 2018: The rotation pattern is such that the overlap between samples in any two successive years is roughly 75%, and that the sample is completely renewed after 4 years. Hence four replications or rotational groups in each year, one of which is replaced the year after. Since 2005, each new replication remains in the survey during the next 4 years, and since 2007, each of the four replications is in the survey during four consecutive years.

SILC 2019: With SILC 2019 a first step was made towards a 6-year panel. SILC 2019 more specifically consists of 5 rotational groups. As before, a new group entered. At the start of 2019, the replication that is in the survey since 2015 would under the old scheme entirely (i.e. irrespective of whether the households are responding or not) be dropped. However, under this new scheme they were kept in the survey as the fifth wave. So, the four replications which entered into the survey in 2015, 2016, 2017 and 2018, respectively, are retained (including their split-offs); the households belonging to these four replications will be designated 'old' hereafter.

The supplementary sample, i.e. the new replication that was added, is obtained by selecting, for each PSU draw, a fixed number of new households from the corresponding PSU. This selection is done again by systematic sampling, after sorting the households in each PSU on age of reference person. The number of new households for each PSU draw, is determined by considering some (expected) attrition of old households, some (expected) nonresponse for new households, and the required/desired minimum and maximum numbers of responding households, given some precision and budget constraints.

Hence, the (cross-sectional) sample of SILC 2019 consists of

- "old" households: drawn between 2015 and 2018; and
- "new" households: drawn in 2019.

2.1.5. SAMPLE SIZE AND ALLOCATION CRITERIA

In 2019, 15 new households per group are randomly selected. In total 4084 new households are selected in 2019. These households are joined with the 6279 old households that remain from previous years (selected in 2015, 2016, 2017 or 2018). Hence 10.363 households are invited to participate in 2019. Given some attrition of old households and nonresponse of new households the number of participating households in 2019 is 6787.

NUTS2	Name	Old hh	New hh	Total hh	Accepted hh (DB135 = 1)
		18	0	18	0
BE10	Brussels	1030	738	1768	1117
BE21	Antwerpen	790	638	1428	849
BE22	Limburg	382	241	623	371
BE23	Oost-Vlaanderen	838	475	1313	923
BE24	Vlaams-Brabant	568	385	953	551
BE25	West-Vlaanderen	661	311	972	713
BE31	Brabant Wallon	210	120	330	213
BE32	Hainaut	793	567	1360	935
BE33	Liège	627	373	1000	699
BE34	Luxembourg	161	89	250	192
BE35	Namur	201	147	348	224
Total	Belgium	6279	4084	10363	6787

Table 1 : sample size and achieved response by NUTS2-units

2.1.6. NEW SAMPLING METHOD FOR BRUSSELS FROM 2016 ON

In the framework of Eurostat's evolving requirements, Statbel decided to modify the sampling design for the Brussels region as from SILC 2016. In order to improve the precision of the poverty indicators, we modified the sampling design for Brussels, by stratifying now according to the tax data of households in Brussels. Starting with a primary and then secondary unit drawing, as for the whole country, we have chosen to proceed with a stratified sampling based on the new administrative data available. We opted for stratification at household level using fiscal data instead of primary sampling units of geographical units for Brussels. We therefore decided to break down the households of Brussels into 5 tax quantiles, plus 1 strata for household without tax information. Since the SILC survey is a 4-year panel (5 years in 2019), the increase in accuracy should be fully visible as from 2018. Since at the moment we are not detecting this increase further studies will look into that. This could be due to a difficulty in variance calculation to take this new stratification into account.

2.1.7. SUBSTITUTIONS

No substitution was applied in our survey.

2.1.8. WEIGHTINGS

Recall that, for the first year of the panel (=SILC 2004 in Belgium), the computation of weights involved three stages (described in 134-04):

- initial weights
- weights corrected for nonresponse
- final (calibrated) weights.

For 2019, a distinction has to be made between

- “old” households: i.e. households that contain at least one sample person who took part in 2018, and had to be surveyed again in 2019 according to the rotation and tracing rules (excluding the outgoing fourth) (household composition may have changed, whence quotations marks)
- “new” households: i.e. households that were drawn for the first time in 2019, among those households not containing any sample person already drawn before.

This distinction pertains to initial weights and nonresponse correction :

- Since the “old” households are selected indirectly from the 2015, 2016, 2017 or 2018 samples, and household composition may have changed, some kind of “weight sharing” must be applied to determine the (2019) initial weights, or rather base weights. On the other hand, “new” households have their own inclusion probability, whose inverse gives the initial weights;
- For the “old” households, (2019) nonresponse=attrition can be linked with (2018) SILC information. For the “new” households, all we can rely upon to explain initial nonresponse is auxiliary information from the Population Register (household size, urban/rural character) and the Financial Statistics (median fiscal income by municipality:)

On the other hand, calibration can be done together for “old” and “new” households. With respect to our 2004 model, we decided in 2005 to relax the constraints (basically, calibrating at NUTS1-level instead of NUTS2), in order to decrease the standard deviation of weights. This introduces the following sections :

- Initial weights for the new households
- Nonresponse correction for the new households
- Base weights for the old households
- Attrition correction for the old households
- Calibration (all households)

2.1.8.1. INITIAL WEIGHTS FOR THE NEW HOUSEHOLDS

Belgium chose to draw the Primary Sampling Units (= municipalities or parts thereof) “forever”, and to rotate the Secondary Sampling Units (=households) within the selected PSU's.

The 2004 PPS two-stage sampling design was self-weighting within each stratum h : x denoting any households in municipality X , we had (in 2004)

$$P(x \text{ drawn}) = P(x \text{ drawn} | X \text{ drawn}) \cdot P(X \text{ drawn}) = n_h / N_x \cdot N_x / N_h \cdot g_h = n_h / N_h \cdot g_h, \text{ where}$$

n_h	denotes	the number of households to be drawn in the (selected) PSU (viz. 40)
N_x		the number of households in the PSU (in 2004)
N_h		the number of households in the stratum (in 2004)
g_h		the number of PSU's drawn in the stratum.

(This is an oversimplification, since PSU are drawn with repetition; the selection probability for a PSU should be replaced by the expectation of selection multiplicity, and the term 40 by a multiple depending on the selection multiplicity...but the idea is the same).

In 2019, the picture has become

$$P(x \text{ drawn}) = P(x \text{ drawn} | X \text{ drawn}) \cdot P(X \text{ drawn}) = m_h / M_x \cdot N_x / N_h \cdot g_h, \text{ where}$$

m_h	is	the number of households to be drawn in the (selected) PSU (depending on h)
M_x	is	the number of households in the PSU (in 2019)

The factor N_x / M_x indicates the increase-decrease in inclusion probabilities in PSU X (still assuming X has been drawn) between 2019 and 2004.

Now it would seem logical to replace N_x by a smaller number, to account for the households¹ already drawn in previous years (from 2004) whence immunized from being drawn again in 2019. However, the following argument shows that (assuming momentarily that X has been drawn and that the population figures N_x and M_x remain stable) matters are not so easy:

$$\begin{aligned} P(x \text{ drawn in 2019}) = \\ (P(x \text{ drawn in 2019} | x \text{ drawn before}) \cdot P(x \text{ drawn before})) + \\ (P(\text{drawn in 2019} | x \text{ not drawn before}) \cdot P(x \text{ not drawn before})), \end{aligned}$$

the first term vanishes and the second equals $n_h / (M_x - b) \cdot (N_x - b) / N_h$, where b denotes the number of hh already drawn; since both fraction terms are much larger than b (at least 900 in all selected PSU's), the ratio $(N_x - b) / (M_x - b)$ is (close to 1, and) very close to N_x / M_x . Since the term b is an approximation anyway, we chose to stick to $m_h / M_x \cdot N_x / N_h \cdot g_h$ as inclusion probabilities, and its inverse for initial weights $INWei = DB080$. Note that, with this concept of DB080, the "new" hh correspond to the total Belgian population (some 4,5 millions private hh); before calibrating, these weights will be scaled down "to make room" for the old hh; recovering the strange hh means that the sum of the pre-calibration weights will be slightly larger than 4,5 millions (average of g -weights slightly less than 1)

2.1.8.2. NONRESPONSE CORRECTION FOR THE NEW HOUSEHOLDS

Following Eurostat's suggestion (see Document 065, Weighting II. Weighting for the first year of each sub-sample), we replaced the homogeneous response groups (based on household size crossed with

¹ Perhaps a bit less (households that vanished already subtracted) or a bit more (split households, both components of which stayed in PSU, should be subtracted twice)

urbanity) ratio by a multiple regression model (based on the same dummy variables). By “responding”, we mean only those households whose results were accepted (DB135=1). Since 2009 we used logistic regression.

Until SILC 2018, the file was split by NUTS1 and the following variables were used:

- Everywhere: Household size, recoded into the four values “one”, “two”, “three” and “four or more” (so three dummies)
- Out of Brussels: DB100 = urbanity
- In Brussels = BE10: median fiscal income of municipality.

From SILC 2019 onwards, the same model was used for all Belgian regions, with the following variables:

- Province
- Household type (4 categories)
- Household size (4 categories)
- Fiscal income quintile of the household

The regression produced a new variable “expresp”, allowing us to define

- NRwei = INIwei/expresp

2.1.8.3. INITIAL WEIGHTS FOR THE OLD HOUSEHOLDS

Until 2014, final cross-sectional weights (ie after calibration) of previous year were used as initial weights for current survey year. From survey year 2015 onwards, we use weights corrected for non-response and sharing as initial individual weights. This led to less spread weights, limiting the min and max value of final weights.

2.1.8.4. ATTRITION FOR THE OLD HOUSEHOLDS

Before “sharing” the 2018 weights, a correction for attrition should be introduced. We elected to perform this correction at the level of individuals, since a 2018 sample person either stays in the panel or leaves it (rotated out, left population, noncontact, refusal or inability to respond, while the structure of a household can change. Note that all household characteristics (e.g. HH021) can be distributed to the members.

Logistic module until SILC 2018: We separated the “Children” (for which only basic personal information from the R-file and the distributed H-file is available) from the “Adults” (present in the P-file N-1 as well). In the children’s model, the following predictors (all, except the last, from the N-1 file – although this does not matter much for group A) were used, grouped by type :

- individual demographic information: age from RB080, sex = RB090,
- housing information: dwelling type = HH010 and tenure = HH020
- household type: a limited number of dummies, as there is at least one dependent child;
- monetary indicators: we refrained from taking the equivalised income (outliers), but took a transform of it, as well as the dummy “poor or not” and the subjective ability to make ends meet = HS120
- sampling and rotation: number of years in panel (from DB075) and urbanisation (=DB100)
- one variable (paradata) related to fieldwork in N-1 (computed from HB040 and HB050)

For the adults, the same predictors were used, and moreover :

- variables from the P-file (related to education level and health);
- country of birth (dummy Belgium Yes/No)

were integrated.

Logistic model from SILC 2019 onwards: There is no longer a distinct module for children and adults, instead a dummy variable is used in the model containing these variables:

- SILC 2019 information:
 - Wave (DB075)
 - Age

- Dummy child/adult
- Register information:
 - Degree of urbanization (DB100)
 - Province (NUTS2)
 - Household size
 - Fiscal income quintile N-2
- SILC 2018 information:
 - Household type
 - ILO status
 - Tenure status (HH021)
 - AROP-status
 - LWI-status
 - Social integration benefit status (HY060)
 - Day of the interview
 - Health status (PH010 and PH040)
 - Dwelling type (HH010)

2.1.8.5. WEIGHT SHARING

We followed Eurostat's recommendation "EU-SILC weighting procedures: an outline" and shared the calibrated 2017 weights, after correcting for attrition (instead of the initial weights, see Lavallée).

This can be illustrated by an imaginary example, dealing simultaneously with fusions (persons *A* & *B* in same 2018 hh, *C* in another 2018 hh, so "fusion" in the sense of DB110 occurs), new members (a baby like *E* or already in population like *D*); we focus on the 2019 hh, what happened to those who co-resided with *A* and *B* or with *C* in 2018 (left or split) is irrelevant!

Note that:

- RB050 = weight 2018: same for *A* & *B*, vacuous for *D* and *E*
- Newi: in general a bit larger than RB050; *A*'s differs from *B*'s (attrition correction at individual level)
- Somwe = 950+1000+850 involves only *A*, *B* and *C*
- $Weind = \frac{1}{4} * somwe$ (*A B C D* : four contribute to the denominator)²

Person in 2019 hh	A	B	C	D	E
RB110 (2019)	1	1	2	3	4
RB050 (weight 2018)	800	800	600	---	---
Newi = Weight 2019 (after attrition correction)	950	1000	850	---	---
Somwe (sum Newi over 2019 hh)	2800	2800	2800	2800	2800
Weind	700	700	700	700	700

Table 2 : illustration weight sharing

² Do we abide by the Eurostat rules (starting from base weights, it is unclear whether "their" attrition correction precedes or follows weight sharing) ?

There remain some additional categories of persons to be considered:

- Children born to sample women. They receive the weight of the mother (this assumes that the baby belongs to his/her mother's hh)
- Persons moving into sample households from outside the survey population. They receive the average of base weights of existing household members (vacuous here, as RB110 enables us to identify the newborns, but not the immigrants or the -few- persons moving from a collective to a private hh)
- Persons moving into sample households from other non-sample households in the population – these are "co-residents" and are given zero base weight.

Weind will be injected as “initial” weight in the final calibration job.

2.1.8.6. CALIBRATION

We first put the pieces together: weind is defined as:

- (new = started in 2019): initial weight, corrected for initial nonresponse, scaled, see 2.1.8.1)
- (old = took part in 2018): 2018 weight, corrected for attrition and weight sharing if necessary, see 2.1.8.5)
- (back = did not take part in 2018 but before): initial weight, no correction.

In terms of persons, the weind statistics were

Type	# ind	Mean of weind
NEW	3720	629.54
OLD	11498	763.76
BACK	348	602.52
TOTAL	15566	728.08

Table 3 : Weights 2019

Recall that 11 *sampling* strata were used (provinces= NUTS2); we use 3 *extrapolation* strata (the 3 NUTS1 regions BRussels=BE1, VLAanderen=BE2 and WALLonia=BE3). Calibration model was adapted in 2012. From this year we take 2 additional individual variables into account for our model : BIT status and Social integration benefits status. In 2019 we added household type, fiscal income quintile and province at the household level. In 2019, our calibration model is the following :

At individual level : $(SEX2 * AGE8 + STATBIT3 + RIS2) * REG3 + PROV11$

At household level : $(FISCAL6 + HH TYPE4 + HH SIZE4) * REG3 + PROV11$

Calibration type : truncated linear

2.1.8.7. FINAL LONGITUDINAL WEIGHTS

2.1.8.8. FINAL CROSS-SECTIONAL WEIGHTS

	N	Minimum	Maximum	Mean	Std. Dev.
Final weights	6787	96.77	5385.23	729.4	341

Table 4 : Final cross-sectionnal weights

More information regarding the new weights:

https://statbel.fgov.be/sites/default/files/files/documents/Analyse/FR/11_FR_Weging_SILC.pdf

2.2. SAMPLING ERRORS

2.2.1. STANDARD ERRORS AND EFFECTIVE SAMPLE SIZE

In Annex we will present an overview of the **standard errors** for the common cross-sectional EU indicators and equivalised disposable income. An overview of the achieved sample size for the ‘Laeken indicators’ and equivalised disposable income can be found in Table 14 of §0.

The design effect for the Median equivalised disposable income = 0.96.

There is no unbiased estimator of the design variance for SYSPPS with replacement sampling. The large PSU are selected with probability 1, but may not be considered as self-representative, because the number of groups selected is random, and the sum of the sampling weights of selected household do not equal PSU size. Standard errors are estimated by jackknife repeated replication (JRR) method. The clusters are the groups, the strata made by two (or three) groups, using sampling order.

2.3. NON-SAMPLING ERRORS

2.3.1. SAMPLING FRAME AND COVERAGE ERRORS

The sampling frame is the Central Population Register. This Register includes all private households and their current members residing in the territory. Persons living in collective households and in institutions are excluded from the target population.

The Central Population Register of 26 January 2019 was used.

Updating actions: Central Population Register is updated two times during a month. The changes were communicated to the interviewers.

As there was a period of one month between the drawing of households and the survey itself, over-coverage, under-coverage and misclassification could be happen.

Over-coverage: Persons who died before the survey. Households who moved outside Belgium before the survey. Address is not the principal residence.

Under-coverage: Immigrants who came in Belgium before the survey. Persons who moved from a household to create a new household. Diplomats exempt from an inscription in the national register. Refugees on a waiting list.

Misclassification: Household who moved from a region in Belgium to another region of Belgium.

The size of coverage errors is not available but it was obviously small.

2.3.2. MEASUREMENT AND PROCESSING ERRORS

2.3.2.1. MEASUREMENT ERRORS

Measurement errors can occur from different sources, such as the survey instrument, the information system, the interviewer, the mode of collection (CAPI interview). We describe here a few elements by which possible measurement errors can be detected or which show on the other side the efforts taken to avoid as much as possible measurement errors.

- **Questionnaire construction**

The questionnaire of the SILC2019 survey is the result of several steps:

For building up the questionnaire we took the blue print questionnaire of Eurostat as the basis (documents SILC065). The order of the questions and the groups (themes of) questions is taken from this blue print. The majority of the questions are almost literally copied (and translated), other questions are changed, however, because experiences in Belgium gave better results posing the questions in another way (The original questionnaires were developed in collaboration with the universities that have the experience of the ECHP/PSBH project in Belgium).

After each survey an evaluation of the questionnaire was made (detection of the problematic or difficult to answer questions based on the comments of the interviewers and on a study of the item non-response). When building up the SILC2019 questionnaire we took account of this evaluation.

Yet, in SILC 2019 a major revision of the questionnaire was done, still using as much as possible of the previous SILC 2019 questionnaire. Changes are introduced as an anticipation on IESS (i.e. questionnaire constructed with modules) and to allow for optimal integration of the register income information (i.e. Belcotax file and income support file). This implied introducing a short routing through the questionnaire for respondents with a Belcotax tax record, and a long routing for respondents who need to provide all income information during the interview.

- **Evaluation of the duration of the interview and the level of difficulty of the questions**

At the end of the interview, the household contact person was asked the following two evaluative questions:

We would like to thank you for your co-operation. We are at the end of the questionnaire. For the evaluation of this questionnaire we would like to ask following questions.

1) *How easy or difficult did you find the answering of the questionnaire in general?*

- *Very difficult (code 1)*
- *Difficult (code 2)*
- *Not difficult but neither easy (code 3)*
- *Easy (code 4)*
- *Very easy (code 5)*

2) *What do you think of the length of the questionnaire?*

- *Too long (code 1)*
- *Neither too long neither too short (code 2)*
- *Too short (code 3)*

In tables Table 5 and Table 6 the distribution of the answers on these questions are presented.

	N	%
Very difficult	36	0.5
Difficult	194	2.9
Neither difficult / Nor easy	3104	45.7
Easy	3020	44.5
Very easy	432	6.4
Missing	0	0
Total	6787	100.0

Table 5 : Opinion on degree of difficulty of the questionnaire

	N	%
Too long	224	3.3
Neither too long / Neither too short	6493	95.7
Too short	69	1.0
Missing	0	0
Total	6787	100.0

Table 6 : Opinion on the duration of the interview

For 50.9% of the participating households, the questions were easy or very easy to interpret (50.2% in 2018). For 95.7% of the households the interview was neither too long, nor too short. This figure is similar to 2018 (94.9%).

As an evaluation after the survey we have sent the households and the interviewers each a different evaluation questionnaire.

- ***Mismatch in time between household composition and household income (see also §3.1)***

A number of inconsistencies result from a mismatch between the composition of the household at the moment of the interview (between April and November of year x) and the income of the previous year (year x-1).

This mismatch can bias the measurement of poverty status in several ways. For example:

Persons who were full-time students in year x-1 (and depending on their parents), but were employed at the time of the interview (and living independently in a one person household for example) will report an income equal to 0 in year x-1 and will be wrongly classified as a poor household.

Other examples can also occur for persons where the household composition changed:

For a housewife who was married in year x-1, but divorced and is working at the time of the survey there will also be a mismatch

For a household which received family allowances for a student in year x-1, but where the student is no longer part of the household in year x there will also be a mismatch

For a household with a person working in year x-1, but retired at the moment of the survey (in year x) a mismatch will also occur. Take notice of the fact that, as the examples show the bias can go in both directions: under and over reporting of income. In each one of the examples, the choice to situate the income reference period in the past is the cause, however.

- ***Error in the routing***

/

- ***Modification of the questionnaire***

The results of the Belgian EU-SILC 2019 are not comparable to the results of SILC 2018 and earlier because of a fundamental reform.

- Integration of register data for the majority of the income variables
- Fundamental reform of the questionnaire to allow for an optimal integration of the register data and already to anticipate the way of working with modules from IESS
- Integration of tax income data in the weight calculations, as a consequence the models for non-response, attrition and calibration are revised

Additionally, in SILC 2019 a fifth wave was added to the panel in a transition towards a 6-year panel from SILC 2020 onwards.

More information regarding the use of registers:

<https://statbel.fgov.be/sites/default/files/documents/Analyse/FR/Analyse%20SILC-Donn%C3%A9es%20fiscales.pdf>

Because of this reform, there is a fundamental break in time series with SILC 2019. A backcasting is, however, not possible because we cannot apply the changes in the questionnaire to the past. Still, the effect of the reform has been simulated on data from SILC 2013 to SILC 2018. In the document concerning the weights, referred to above, the last annex shows the results of this simulation exercise.

Last, an additional difference for overcrowding rate (LVHO05a): we changed the question HH030 in 2016 (from a separate question for each kind of room to one single question). As a result, this change led to a decrease in the number of rooms collected. The impact of the change is still going on in 2019 as we use the value collected from the previous wave in case the household answered that there was no change in the main housing between 2 waves.

- ***Interview training (Number of training days and information on the intensity and efficiency of interview training)***

Overall we had the impression that the working-experience of the interviewers with EU-SILC starts to pay off. All new interviewers have to follow a two day formation. All trained interviewers followed a formation for an hour and half.

They both had to complete a test-interview before they could download their data. So we can be sure they can completely manage the use of the PC and that they know the questionnaire before they go on the field.

A training group for new interviewers consisted of minimum 5 to maximum 20 interviewers, and according to the size of the training group there were 1 or 2 trainers.

Even though the accent was given to the practical side of the training (getting to know the questions and mastering the CAPI-program by imitating interview situations), three manuals were distributed and explained during the training:

- A general manual ('Manuel général aux enquêteurs') containing information about the objectives of the survey, the organisation of the survey, legal and administrative aspects around the survey, fieldwork aspect (how to contact the household, how to introduce oneself, who answers which questions, time delays, ...) and the content of the questionnaires.
- A second manual ('Manuel contenu') with all kinds of additional explanations and examples for certain questions/answers.
- A third manual ('Manuel CAPI') about the use of the portable PC for the SILC Computer Assisted Personal Interviews and about the data entry program itself.

The first day of the training there was half a day for learning about and discussing the first two manuals. In the afternoon the trainees received their laptop and got to know the survey and the tool to carry out the interview in practice. One test-interview was simulated collectively. The second day of the training a small part of the time was dedicated to testing to send the data electronically after carrying out the interview. All the rest of the day interviewers practiced several interviews and interview situations with each other on the basis of household profiles that were given. There was also a lot of time for questions and discussions in between these test-interviews.

At the end of the training sessions the instructors had a good image on the degree in which each interviewer ameliorated during the training and on the degree in which they mastered the work. For certain interviewers two days of training was more than enough to master the work, for others it was necessary that they practiced some more at home on specific aspects of carrying out this survey (for example using of the CAPI-program itself, working on the content of the survey, ...). They were recommended to do so before carrying out their first real interview. They were often also recommended to start interviewing one-person households.

A training group for trained interviewers consisted in maximum 30 interviewers with two trainers. The accent was also given on the content: questions that changed, the modules 2018 and questions, which are misunderstood by the interviewers. We made an extra manual for trained interviewers. The trained interviewers obtained four manuals:

- A general manual ('Manuel général aux enquêteurs') containing information about the objectives of the survey, the organisation of the survey, legal and administrative aspects around the survey, fieldwork aspect (how to contact the household, how to introduce oneself, who answers which questions, time delays, ...) and the content of the questionnaires.
- A second manual ('Manuel contenu') with all kinds of additional explanations and examples for certain questions/answers.

- A third manual ('Manuel CAPI') about the use of the portable PC for the SILC Computer Assisted Personal Interviews and about the data entry program itself.
- A fourth manual ('Modifications du questionnaire : module 2018) about the module, changed questions and questions misunderstood by the interviewers.
- **Skills testing before starting the fieldwork**

Interviewers were selected from the interviewer database that Statbel has centralised for all the survey's that are carried out by the institute. For each interviewer a basic curriculum vitae is present in the database (mentioning for example for which surveys they have experience, their language knowledge, their knowledge of pc, ...). A specific unit at Statbel ('Unité Corps Enquêteurs') is occupied with the selection of the interviewers for each survey; they have good contact with and knowledge of the interviewers. They try to find the best interviewer for each of the geographical areas to cover for SILC. This is not always an easy task because for certain geographical areas several interviewers are candidate, but for other geographical units there are few or no candidates. Note that interviewers in Belgium most often carry out this work as a second or casual occupation.

- **Skills control during the fieldwork**

During the fieldwork we controlled the work of the interviewers by looking at some of their completed questionnaires. We gave extra attention to all new interviewers and to some trained interviewers that we suspected to be less accurate. Remarks (positive as negative) resulting from these controls were immediately communicated to the interviewer so they could improve their way of working and interviewing.

- **Number of households by interviewer**

Groups of secondary units consisted of about 35 households, depending on the strata. Most of the interviewers had one group of households. Nevertheless several interviewers also had more groups.

nbmen	Frequency	Percent
less than 40 HH	22	20
40-60 HH	20	18,18
61-80 HH	18	16,36
81-100 HH	8	7,27
101-140 HH	19	17,27
more than 140 HH	23	20,91

Table 7 : Number of households by interviewer

2.3.2.2. PROCESSING ERRORS

Belgium used the CAPI-method to interview the persons. The questionnaire was programmed in Blaise. So processing errors due to data entry (from a written to an electronic format) were reduced to a minimum. Statbel programmed several data entry and coding controls in the Blaise program. Below an overview of both data entry and coding controls is presented.

Household composition questionnaire	
C0_8	IF C0_8 > STRTODATE('01/01/[Yearsta]') AND C0_8 < STRTODATE('01/01/[Yearsta+1]') → CHECK (hard-error): Please enter a valid date in [Yearsta]! IF C0_8 <> sysdate → SIGNAL (soft-error): The specified date does not match the system date of your computer, are you sure it is correct? IF C0_8 <> [C1(i) where C5 = 1] → SIGNAL (soft-error): The date you enter here does not match the date specified in the contact sheet for the contact you conducted the interview on.
C1_8	IF C1_5 = c5 THEN C1_8 <> c1 → SIGNAL (soft-error): Are you sure about that? According to our information, this person is no longer part of the household. IF C1_5 = c6 THEN C1_8 <> c1 → SIGNAL (soft-error): Are you sure about that? According to our information, this person is dead.
C1_10	IF C1_10 = c2 THEN signal → SIGNAL (soft-error): Are you sure you want to change the date of birth?
C1_11	C1_11 <= SYSDATE → CHECK (hard-error): date of birth <= today C1_11 <= today and C1_11 >= today - 110 year → CHECK (hard-error): date of birth >= today - 110 year
C1_13	(IF C1_13(prefill) <> C1_13(answer) THEN signal) → SIGNAL (soft-error): Are you sure you want to change the gender of this person?
C1_17	IF C1_3 <> 1 and C1_4 <> 1 for all HH members → There should be at least one household member for whom C1_3 = 1 and C1_4 = 1, otherwise the survey should be aborted with the message "Since the household does not contain a sample person, the survey cannot be completed."
C2_2	IF {(C1_5 = c1 OR c2 OR c3) AND (C1_4 = c1) AND C2_2 = c1} → SIGNAL (soft-error): Please inform the SILC-team that this person is no longer part of the household so that a "split-off household" can be created (e-mail to XXX).
C3_1	IF C3_1 = c4 AND C1_12 > 2 → CHECK (hard-error): A new-born baby cannot be so old. IF C1_5 = c5 AND C3_1 = c1 → SIGNAL (soft-error): Please inform the SILC-team that this person is still part of the household (e-mail to XXX).
C3_8	IF {C3_5 <> c1 AND C3_8 = c1} → CHECK (hard-error): This person is absent. It must be a proxy interview. IF (C1_15=1 & CD_PROXY=c2) → CHECK (hard-error) : It is a single-person household. A proxy interview is therefore impossible.
C3_15	IF (C1_12 < 16) → SIGNAL (soft-error): Is it true that the biological or adoptive father is younger than 16 years? IF (C1_12 < 16) → SIGNAL (soft-error): Is it true that the age difference with the biological or adoptive father is less than 15 years? IF (C1_13 = c2) → SIGNAL (soft-error): Is it true that the biological or adoptive father has undergone sex surgery?
C3_17	IF (C1_12 < 16) → SIGNAL (soft-error): Is it true that the biological or adoptive mother is younger than 16 years of age? IF (C1_12 < 16) → SIGNAL (soft-error): Is it true that the age difference with the biological or adoptive mother is less than 15 years? IF (C1_13 = c1) → SIGNAL (soft-error): Is it true that the biological or adoptive mother has undergone sex surgery?
C3_23	IF (C1_12 < 16) → SIGNAL (soft-error): Is it true that the partner is younger than 16? A control on the reciprocity of the partner relationship (if A claims to have B as a partner, A must also be entered as a partner for B)
C3_29	IF C3_7 <> c1 for all HH members → There should be at least one household member for whom C3_7 = c1, otherwise the survey should be aborted with the message "Given that no individual questionnaire will be answered, the interview cannot take place."
HH questionnaire	
H14	IF (H13A = c1 of c2) AND H14 = c2 THEN soft-error → SIGNAL (soft-error): You indicated that you have a shower and / or bath,. Are you sure that you do not have hot running water?
H21	IF H21 <= 10.000 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H21 >= 500000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H22	IF H22 <= 5 THEN soft-error → SIGNAL (soft-error): This is a very short term. Are you sure?

H23	IF H22 >= 34 THEN soft-error → SIGNAL (soft-error): This is a very long term. Are you sure? IF H23 <= 1 THEN soft-error → SIGNAL (soft-error): This is a very low interest rate. Are you sure? IF H23 >= 10 THEN soft-error → SIGNAL (soft-error): This is a very high interest rate. Are you sure?
H24	(H24 <= Year_1) AND (H24 >= (Year_1 - H22)) → CHECK (hard-error): This choice is not possible
H25	IF H24 = Yearsta THEN H25 <= H5 → CHECK (hard-error): This choice is not possible
H27	IF H26 = c1 {month} AND H27 <= 100 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H26 = c1 {month} AND H27 >= 2.000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure? IF H26 = c2 {quarter} AND H27 <= 500 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H26 = c2 {quarter} AND H27 >= 10.000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure? IF H26 = c3 {year} AND H27 <= 1.000 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H26 = c3 {year} AND H27 >= 20.000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H28	IF (Yearsta - H24) >= 11 THEN soft-error → SIGNAL (soft-error): You have already had your home for more than 10 years. This insurance only applies to the first years of your loan. Are you sure?
H29	IF H29 <= 25 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H29 >= 7.200 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H30	IF H30 = c2 THEN (H22 + H24) <= Yearsta → SIGNAL (soft-error): You just indicated that your loan is [NUMBER OF YEARS H 22], and that your first installment in [YEAR H 24] took place, are you sure that you did not have to pay for this loan this year?
H33	IF H33 <= 100 THEN soft-error → SIGNAL (soft-error): This is a very low rental income. Are you sure? IF H33 >= 5.000 THEN soft-error → SIGNAL (soft-error): This is a very high rental income. Are you sure?
H36	IF H16 = c2 AND H36 <= 250 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H16 = c2 AND H36 >= 2.000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure? IF H16 = c3/c4/c5 AND H36 <= 100 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H16 = c3/c4/c5 AND H36 >= 1.000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H38	IF H38 <= 25 THEN soft-error → SIGNAL (soft-error): This is a very low rental allowance. Are you sure? IF H38 >= 1.000 THEN soft-error → SIGNAL (soft-error): This is a very high rental allowance. Are you sure?
H45	IF H45 <= 5 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H45 >= 100 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H46	IF H46 <= 25 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H46 >= 600 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H47	IF H47 <= 15 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H47 >= 350 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H48	IF H48 <= 15 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H48 >= 350 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H50	IF H50 <= 10 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H50 >= 10 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H51	IF H51 <= 20 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H51 >= 500 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H53	IF H53 <= 10 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H53 >= 250 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H55	IF H55 <= 10 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H55 >= 250 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?

H57	IF H57 <= 10 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H57 >= 100 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H59	IF H59 >= 100 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H61	IF H61 <= 10 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H61 >= 100 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H63	IF H63 <= 10 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H63 >= 200 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H64	IF H64 <= 10 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H64 >= 150 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H65	IF H65 <= 2 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H65 >= 25 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H66	IF H66 <= 1 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H66 >= 200 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H67	IF H67 <= 50 THEN soft-error → IF H67 >= 2.000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H84	IF H16 = c1 AND H84A <> c4 THEN soft-error → SIGNAL (soft-error): You indicated that you are currently the owner. Is it true that you were a tenant of your home in the last 12 months? IF H16= [c2-c5] AND H84A = c4 THEN soft-error → SIGNAL (soft-error): You indicated that you are currently a tenant. Is it true that you were not a tenant in the last 12 months? IF H16 = c6 AND H84A <> c4 THEN soft-error → SIGNAL (soft-error): You indicated that you currently have a free residence. Is it correct that this was not the case in the past few months and you had to pay rent? IF H17 = yes THEN H84B <> c4 → CHECK (hard-error): You indicated that you paid off a mortgage in [YEAR-1]. The answer cannot be 'not applicable'. IF H17 = no THEN H84B = c4 → CHECK (hard-error): You indicated that you did not paid off a mortgage in [YEAR-1]. The answer should be 'not applicable'. IF H16= [c2-c5] AND H84B <> c4 THEN soft-error → SIGNAL (soft-error): You indicated that you are currently a tenant. Is it true that you were the owner of your dwelling in the last 12 months? IF H16 = c6 AND H84B <> c4 THEN soft-error → SIGNAL (soft-error): You indicated that you currently have a free residence. Is it correct that this was not the case in the past few months and you paid a loan as owner? IF H84C = c4 THEN soft-error → SIGNAL (soft-error): Are you sure you did not have to pay a utility bill for energy?
H92	IF H92 <= 750 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H92 >= 7500 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H96	IF H96 <= 750 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H96 >= 7500 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H105	IF H105 <= 1000 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF H105 >= 10000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H108	IF Kindvlag18 = 1 & H108 = no THEN soft-error → SIGNAL (soft-error): [Names children] live here. Are you sure you have not received family allowance? IF Kindvlag18 = 0 & H108 = yes → SIGNAL (soft-error): There are currently no children living in your household. Are you sure you have received child benefit?
H109	IF Nbr_kind_18 = 1 & H109 <= 90 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF Nbr_kind_18 = 1 & H109 >= 1500 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure? IF Nbr_kind_18 = 2 & H109 <= 260 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF Nbr_kind_18 = 2 & H109 >= 3500 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure? IF Nbr_kind_18 = 3 & H109 <= 500 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure? IF Nbr_kind_18 = 3 & H109 >= 7000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?

	IF Nbr_kind_18 >= 4 & H109 <= 800 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure?
	IF Nbr_kind_18 >= 4 & H109 >= 12000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H110	IF Babyvlag = 1 THEN soft-error → SIGNAL (soft-error): [NAME CHILD] was born in [YEAR-1]. Are you sure?
H111	IF H111 <= 600 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure?
	IF H111 >= 2500 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H113	IF H113 <= 250 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure?
	IF H113 >= 8000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H117	IF H117 <= 80 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure?
	IF H117 >= 3000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H120	IF H120 <= 250 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure?
	IF H120 >= 5000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H123	IF H123 <= 130 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure?
	IF H123 >= 46000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H130	IF H130 <= 400 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure?
	IF H130 >= 10000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H131	IF H131 <= 10 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure?
	IF H131 >= 2000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H135	IF H135 <= 1 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure?
	IF H135 >= 3000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H141	IF H141 <= 10 THEN soft-error → SIGNAL (soft-error): This is a very low amount. Are you sure?
	IF H141 >= 2000 THEN soft-error → SIGNAL (soft-error): This is a very high amount. Are you sure?
H149	IF H149 >= 50 THEN soft-error → This is very much. Are you sure?
H152	IF H152 >= 50 THEN soft-error → This is very much. Are you sure?
H153	IF H153 >= 50 THEN soft-error → This is very much. Are you sure?
H154	IF H154 >= 50 THEN soft-error → This is very much. Are you sure?
H155	IF H155 >= 50 THEN soft-error → This is very much. Are you sure?
H156	IF H156 >= 50 THEN soft-error → This is very much. Are you sure?
H157	IF H157 >= 50 THEN soft-error → This is very much. Are you sure?
H158	IF H158 >= 50 THEN soft-error → This is very much. Are you sure?
H159	IF H159 >= 50 THEN soft-error → This is very much. Are you sure?
H160	IF H160 >= 50 THEN soft-error → This is very much. Are you sure?
H161	IF H161 >= 50 THEN soft-error → This is very much. Are you sure?
H162	IF H162 >= 50 THEN soft-error → This is very much. Are you sure?
H163	IF H163 >= 50 THEN soft-error → This is very much. Are you sure?
Individual questionnaire	
Q29	IF Q29=c1 THEN soft-error → SIGNAL (soft-error): Are you sure you did not successfully complete your primary education?
	IF Q29=c2 THEN soft-error → SIGNAL (soft-error): Are you sure you did not complete your lower secondary education (i.e. the first three years of the old system or the first two years of the new system) successfully?
Q48	IF (Q46 = c8 OR c9) AND (Q48 = [c5-c8]) THEN soft-error → SIGNAL (soft-error): You previously indicated that you work as higher employee or executive. Are you sure?
Q49	IF Q49 < 1000 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure?
	IF Q49 > 8000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q50	IF Q50 < 750 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure?
	IF Q50 > 5000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
	IF Q50 > Q49 THEN hard-error → CHECK (hard-error): The gross amount must be higher or equal to the net amount!
Q55	IF Q55 > 70 THEN soft-error → SIGNAL (soft-error): This number is high. Are you sure?
Q58	IF Q58 > 35 THEN soft-error → SIGNAL (soft-error): This number is high. Are you sure?
Q69	IF (Q68 + Q69) > pAge THEN hard-error → CHECK (hard-error): You are [age] and indicated that you started working at [Q68]. This answer is not possible.

Qinc1	IF (QSit1 = c1 OR c2) AND Qinc1 = c2 THEN soft-error → SIGNAL (soft-error): Are you sure about that? You have indicated in the calendar that you have worked as an employee in the period in question.
Qinc2	IF (QSit2 = c1 OR c2) AND Qinc2 = c2 THEN soft-error → SIGNAL (soft-error): Are you sure about that? You have indicated in the calendar that you have worked as an employee in the period in question.
Q76	IF Kalender.Flag_kal[8] = 0 AND Q76 = c1 THEN soft-error → SIGNAL (soft-error): You did not previously indicate having worked as an employee. Are you sure? IF Kalender.Flag_kal[8] = 1 AND Q76 = c2 THEN soft-error → SIGNAL (soft-error): You previously indicated having worked as an employee. Are you sure?
Q83	IF Net < 100 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Net > 5000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q90	IF Net < 100 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Net > 5000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q92	IF Q92 < 500 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q92 > 50000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q93	IF Q93 < 500 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q93 > 30000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q96	IF Q96 < 100 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q96 > 8000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q97	IF Q97 < 100 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q97 > 5000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure? IF Q97 > Q96 THEN hard-error → CHECK (hard-error): The gross amount must be higher or equal to the net amount!
Q102	IF Net < 100 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Net > 5000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q104	IF Q104 < 8000 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q104 > 100000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q109	IF Q109 < 20 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q109 > 300 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q111	IF Q111 < 20 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q111 > 20 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q112	IF Q112 < 50 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q112 > 2000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q113	IF Q113 < 50 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q113 > 2000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q115	IF Q115 < 50 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q115 > 2000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q116	IF Q116 < 5 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q116 > 250 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q118	IF Q118 < 10 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q118 > 3000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q121	IF Q121 < 10 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q121 > 3000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q123	IF Q123 < 10 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q123 > 1200 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q124	IF Q124 < 10 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q124 > 1200 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q125	IF Q125 < 1000 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q125 > 10000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q128	IF Kalender.Flag_zelfstandigen = 0 AND Q128 = c1 THEN soft-error → SIGNAL (soft-error): You previously did not indicate having worked as self-employed. Are you sure? IF Kalender.Flag_zelfstandigen = 1 AND Q128 = c2 THEN soft-error → SIGNAL (soft-error): You previously indicated having worked as self-employed. Are you sure?
Q135	IF Q135 < 500 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q135 > 10000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?

Q136	IF Q136 < 300 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q136 > 6000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure? IF Q136 > Q135 THEN hard-error → CHECK (hard-error): The gross amount must be higher or equal to the net amount!
Q140	IF Q140 < 200 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q140 > 17000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q141	IF Q141 < 1 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q141 > 100000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q145	IF Q145 < 1 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q145 > 25000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q148	IF Q148 < 1000 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q148 > 1600 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q151	IF Q151 < 375 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q151 > 100000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q152	IF Q152 < 250 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q152 > 65000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure? IF Q152 > Q151 THEN hard-error → CHECK (hard-error): The gross amount must be higher or equal to the net amount!
Q156	IF Q156 < 1 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q156 > 100000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q160	IF Kalender.Flag_brugpensioen = 0 AND Q160 = c1 THEN soft-error → SIGNAL (soft-error): You previously did not indicate having been in early retirement. Are you sure? IF Kalender.Flag_brugpensioen = 1 AND Q160 = c2 THEN soft-error → SIGNAL (soft-error): You previously indicated having been in early retirement. Are you sure?
Q161	IF Q161 < 500 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q161 > 3000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q162	IF Q162 < 300 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q162 > 2500 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure? IF Q162 > Q161 THEN hard-error → CHECK (hard-error): The gross amount must be higher or equal to the net amount!
Q165	IF Kalender.Flag_werkloos = 0 AND Q165 = c1 THEN soft-error → SIGNAL (soft-error): You previously did not indicate having been unemployed. Are you sure? IF Kalender.Flag_werkloos = 1 AND Q165 = c2 THEN soft-error → SIGNAL (soft-error): You previously indicated having been unemployed. Are you sure?
Q167	IF Q167 < 100 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q167 > 2000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q168	IF Q168 < 50 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q168 > 1500 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure? IF Q168 > Q167 THEN hard-error → CHECK (hard-error): The gross amount must be higher or equal to the net amount!
Q171	IF Q171 < 5 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q171 > 2500 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q172	IF Q172 < 5 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q172 > 2500 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure? IF Q172 > Q171 THEN hard-error → CHECK (hard-error): The gross amount must be higher or equal to the net amount!
Q174	IF Prefil_ind.Q1 <> 1 AND Kalender.Flag_pensioen = 0 AND Q174 = c1 THEN soft-error → SIGNAL (soft-error): You did not indicate that you were retired. Are you sure? IF Prefil_ind.Q1 <> 1 AND Kalender.Flag_pensioen = 1 AND Q174 = c2 THEN soft-error → SIGNAL (soft-error): You indicated that you were retired. Are you sure?
Q182	IF Q182 < 100 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q182 > 4000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q183	IF Q183 < 100 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q183 > 3000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure? IF Q183 > Q182 THEN hard-error → CHECK (hard-error): The gross amount must be higher or equal to the net amount!
Q186	IF Q186 < 150 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure?

Q187	IF Q186 < 150 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure? IF Q187 < 150 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q187 > 2000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure? IF Q187 > Q186 THEN hard-error → CHECK (hard-error): The gross amount must be higher or equal to the net amount!
Q190	IF Q190 < 50 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q190 > 1200 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q191	IF Q191 < 50 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q191 > 1200 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure? IF Q191 > Q190 THEN hard-error → CHECK (hard-error): The gross amount must be higher or equal to the net amount!
Q194	IF Q194 < 50 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q194 > 600 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q197	IF Q197 < 1 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q197 > 999998 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q201	IF Q201 < 1 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q201 > 999998 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q205	IF Q205 < 1 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q205 > 999998 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q209	IF Prefil_ind.Q1 <> 1 AND Kalender.Flag_ziekte = 0 AND Q209 = c1 THEN soft-error → You previously did not indicate having been on sick leave or incapacity. Are you sure? IF Prefil_ind.Q1 <> 1 AND Kalender.Flag_ziekte = 1 AND Q209 = c2 THEN soft-error → You previously indicated having been on sick leave or incapacity. Are you sure?
Q215	IF Q215 < 100 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q215 > 3000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q216	IF Q216 < 100 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q216 > 2500 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure? IF Q216 > Q215 THEN hard-error → CHECK (hard-error): The gross amount must be higher or equal to the net amount!
Q219	IF Q219 < 100 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q219 > 3000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q220	IF Q220 < 100 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q220 > 2500 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure? IF Q220 > Q219 THEN hard-error → CHECK (hard-error): The gross amount must be higher or equal to the net amount!
Q223	IF Q223 < 50 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q223 > 3000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q224	IF Q224 < 50 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q224 > 2500 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure? IF Q224 > Q223 THEN hard-error → CHECK (hard-error): The gross amount must be higher or equal to the net amount!
Q227	IF Q227 < 50 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q227 > 3000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q228	IF Q228 < 50 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q228 > 2500 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure? IF Q228 > Q227 THEN hard-error → CHECK (hard-error): The gross amount must be higher or equal to the net amount!
Q231	IF Q231 < 130 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure? IF Q231 > 3500 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q234	IF Kalender.Flag_loopbaanonderbreking = 0 AND Q234 = c1 THEN soft-error → You previously did not indicate having been in career interruption or time credit. Are you sure? IF Kalender.Flag_loopbaanonderbreking = 1 AND Q234 = c2 THEN soft-error → You previously indicated having been in career interruption or time credit. Are you sure?
Q243	IF Q243 < 80 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure?
Q244	IF Q243 > 1200 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure? IF Q244 < 60 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure?

	IF Q244 > 1100 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
	IF Q244 > Q243 THEN hard-error → CHECK (hard-error): The gross amount must be higher or equal to the net amount!
Q248	IF Kalender.Flag_moederschap = 0 AND Q248 = c1 THEN soft-error → You previously did not indicate having been in maternity leave or having taken such type of leave. Are you sure?
	IF Kalender.Flag_moederschap = 1 AND Q248 = c2 THEN soft-error → You previously indicated having been in maternity leave or having taken such type of leave. Are you sure?
Q249	IF Q249 < 100 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure?
	IF Q249 > 10000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q250	IF Q250 < 100 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure?
	IF Q250 > 10000 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
	IF Q250 > Q249 THEN hard-error → CHECK (hard-error): The gross amount must be higher or equal to the net amount!
Q257	IF Q257 < 100 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure?
	IF Q257 > 1300 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q260	IF Q260 < 20 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure?
	IF Q260 > 1500 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?
Q265	IF Q265 < 1 THEN soft-error → SIGNAL (soft-error): This is a small amount. Are you sure?
	IF Q265 > 999998 THEN soft-error → SIGNAL (soft-error): This is a large amount. Are you sure?

Table 8 : Overview of data entry controls

- **Coding controls**

For the questions relating to occupation (ISCO) and the economic activity of the local unit (NACE) of the main job for respondent, the interviewer cannot directly insert the corresponding ISCO08 or NACE rev2 codes. The interviewer has to give a detailed description of the occupation or economic activity and persons specifically trained for codification will give the right codes after the survey. Interviewers are also specifically trained to give an optimal description, as precise as possible: name of the occupation + list of most important tasks, ...

- **Other controls and other problems**

An error occurred in the time registration in our Blaise program for SILC 2019, so the number of minutes could not be measured (see §2.5). For SILC 2018, the household questionnaire took about 16 minutes and the individual questionnaires together 22 minutes in means. Because of the integration of the register incomes and the changes in the questionnaire, we believe that the mean duration of the individual questionnaire has decreased for SILC 2019.

2.3.3. NON-RESPONSE ERRORS

2.3.3.1. ACHIEVED SAMPLE SIZE

Rotational group	N
Group 3 (start in 2015)	1088
Group 4 (start in 2016)	1145
Group 1 (start in 2017)	1579
Group 2 (start in 2018)	1390
Group 5 (start in 2019)	1585
All	6787

Table 9 : Number of households for which an interview is accepted for the database

Rotational group	N
Group 3 (start in 2015)	2034
Group 4 (start in 2016)	2080
Group 1 (start in 2017)	2928
Group 2 (start in 2018)	2586
Group 5 (start in 2019)	2962
All	12590

Table 10 : Number of persons of 16 years or older who are members of the households for which the interview is accepted, and who completed a personal interview

2.3.3.2. UNIT NON-RESPONSE

For the total sample (five rotational groups)

- **Household non-response rates (NRh)**

$$NRh = (1 - (Ra * Rh)) * 100$$

where Ra= Number of addresses successfully contacted/Number of valid addresses selected

$$= \text{sum}(DB120=11 \text{ or } db110=1) / (\text{sum}(DB110 \text{ in } (1,2,8,9) - \text{sum}(DB120=23)) \\ = 9889 / (10363 - 10) \\ = 0.9552$$

Rh= Number of household interviews completed and accepted for the database/ Number of eligible households at contacted addresses

$$= \text{sum}(DB135=1) / \text{sum}(DB130 = \text{all}) \\ = 6787 / 9889 \\ = 0.6863$$

$$NRh = (1 - (Ra * Rh)) * 100 = (1 - (0.9552 * 0.6863)) * 100 = 34.44$$

So, the household non-response rate is =34.4 %

- **Individual non-response rates (NRp)**

$$NRp = (1 - (Rp)) * 100$$

Where

Rp= Number of personal interviews completed / Number of eligible individuals

$$= \text{sum}(RB250 \text{ in } (11,13)) / \text{sum}(RB245 \text{ in } (1,2,3)) \\ = 12466 / 12590 \\ = 0.9902$$

$$NRp = ((1 - (0.9902)) * 100) = 0.98$$

So, the individual non-response rate is 1%

- **Overall individual non-response rates (*NRp)**

$$*NRp = (1 - (Ra * Rh * Rp)) * 100 =$$

$$(1 - (0.9552 * 0.6863 * 0.9902)) * 100 = 35.09$$

So, the overall individual non-response rate is 35.1%.

For the new households (rotational group 5)

- **Household non-response rates (NRh)**

$$NRh = (1 - (Ra * Rh)) * 100$$

where Ra= Number of addresses successfully contacted/Number of valid addresses selected

$$= \text{sum}(DB120=11 \text{ or } db110=1) / (\text{sum}(DB110 \text{ in } (1,2,8,9) - \text{sum}(DB120=23))) \\ = 3696 / (4084 - 10) = 0.9072$$

Rh= Number of household interviews completed and accepted for the database/ Number of eligible households at contacted addresses

$$= \text{sum}(DB135=1) / \text{sum}(DB130 = \text{all}) \\ = 1585 / 3695 = 0.4288$$

$$NRh = (1 - (0.9072 * 0.4288 * 100)) = 61.09$$

So, the household non-response rate is 61.1%

- **Individual non-response rates (NRp)**

$$NRp = (1 - (Rp)) * 100$$

Where Rp= Number of personal interviews completed / Number of eligible individuals

$$= \text{sum}(RB250 \text{ in } (11,13)) / \text{sum}(RB245 \text{ in } (1,2,3)) \\ = 2923 / 2962 = 0.9868$$

$$NRp = (1 - (0.9868)) * 100 = 1.32$$

So, the individual non-response rate is 1.3%

- **Overall individual non-response rates (*NRp)**

$$*NRp = (1 - (Ra * Rh * Rp)) * 100 =$$

$$(1 - (0.9072 * 0.4288 * 0.9868)) * 100 = 61.61$$

So, the overall individual non-response rate is 61.6 %.

2.3.3.3. DISTRIBUTION OF HOUSEHOLDS BY 'RECORD OF CONTACT AT ADDRESS' (DB120), BY 'HOUSEHOLD QUESTIONNAIRE RESULT' (DB130) AND BY 'HOUSEHOLD INTERVIEW ACCEPTANCE' (DB135)

	N	%	Group 5 (start in 2019)	Group 2 (start in 2018)	Group 1 (start in 2017)	Group 4 (start in 2016)	Group 3 (start in 2015)					
Total (DB120 =11 to 23)	4430	100	3853	87	142	3,2	199	4,5	114	2,6	122	2,8
Address contacted (DB120 =11)	4209	95,01	3696	83,4	121	2,7	174	3,9	102	2,3	116	2,6
Address non-contacted (DB120 =21 to 23)	221	4,99	157	3,5	21	0,5	25	0,6	12	0,3	6	0,1
Total address non-contacted	211	100	157	71	21	9,5	25	11,3	12	5,4	6	2,7
Address cannot be located (DB120 =21)	2020	91,4	138	62,4	21	9,5	25	11,3	12	5,4	6	2,7
Address unable to access (DB120 =22)	9	4,07	9	4,1	.	.	.	.	.	.	.	.
Address does not exist (DB120 =23)	10	4,52	10	4,5	.	.	.	.	.	.	.	.

Table 11 : Distribution of households by 'record of contact at address' (DB120)

	N	%	Group 5 (start in 2019)	Group 2 (start in 2018)	Group 1 (start in 2017)	Group 4 (start in 2016)	Group 3 (start in 2015)					
Total	9889	100	3696	37,4	1731	17,5	1851	18,7	1304	13,2	1307	13,2
Household questionnaire completed (DB130 =11)	6791	68,67	1586	16	1390	14,1	1579	16	1145	11,6	1091	11
Interview not completed (DB130 =21 to 24)	3098	31,33	2110	21,3	341	3,5	272	2,8	159	1,6	216	2,2
Total interview not completed (DB130 =21 to 24)	3098	100	2110	68,1	341	11	272	8,8	159	5,1	216	7
Refusal to co-operate (DB130 =21)	2270	73,27	1620	52,3	233	7,5	164	5,3	100	3,2	153	4,9
Entire household tempo-rarily away (DB130 =22)	667	21,53	489	15,8	63	2	60	1,9	30	1	25	0,8

Household unable to respond (DB130 =23)	31	1	.	.	12	0,4	12	0,4	4	0,1	3	0,1
Other reasons (DB130 = 24)	130	4,2	1	0,03	33	1,1	36	1,1	25	0,8	35	1,1
Household questionnaire completed (DB135=1+2)	6791	100	1586	23,4	1390	20,5	1579	23,3	1145	16,9	1091	16,1
Interview accepted for database (DB135=1)	6787	99,94	1585	23,3	1390	20,5	1579	23,3	1145	16,9	1088	16
Interview rejected (DB135=2)	4	0,06	1	0,01	.	.	.	.	.	.	3	0,04

Table 12 : Distribution of households by 'household questionnaire result' (DB130) and by 'household interview acceptance' (DB135)

Longitudinal non response rate for the 4 groups to follow:

$$(1 - (0.9498 * 0.84 * 0.9898)) * 100 = 21.04 \%$$

2.3.3.4. DISTRIBUTION OF SUBSTITUTED UNITS

No substitution was applied in our survey.

2.3.3.5. ITEM NON-RESPONSE

In Table 13, an overview of the item non-response for all income variables is presented. The percentage of households having received an amount, the percentage of households with missing values and the percentage of households with partial information is calculated.

These percentages are calculated as follows:

- % of households having received an amount : number of households (or persons) who have received something (yes to a filter) / total
- % of households with missing values : number of households (or persons) who said that they have received something but did not give any amount (no partial information) / number of households (or persons) who have received something (yes to a filter)
- % of households with partial information: number of households (or persons – depending on the source of the variable – household file HY or personal file PY) who said that they have received something but gave partial information (amounts were not given for all components) / number of households (or persons) who have received something (yes to a filter)

Item non-response	% of households having received an amount	% of households with missing values	% of households with partial information
Total gross household income (HY010)	99.98	1.34	18.56
Total disposable household income (HY020)	99.91	0.68	21.19

Total disposable household income before social transfers except old-age and survivor's benefits (HY022)	97.39	0.59	21.69
Total disposable household income before social transfers including old-age and survivor's benefit (HY023)	95.11	0.53	22.15
Net income components at household level			
Family related allowances (HY050N)	31.30	4.90	0.42
Interests, dividends, etc. (HY090N)	47.09	10.14	.
Gross income components at household level			
Imputed rent (HY030G)	77.59	.	100
Income from rental of a property or land (HY040G)	7.71	3.89	0.17
Family related allowances (HY050G)	31.3	4.90	0.47
Social exclusion not elsewhere classified (HY060G)	3.43	0.43	.
Housing allowance (HY070G)	0.46	16.13	.
Regular inter-household cash transfer received (HY080G)	5.86	5.03	0.50
Alimonies received (HY081G)	3.85	3.07	.
Interest, dividends, profit from capital investments (HY090G)	47.09	10.14	.
Interest repayments on mortgage (HY100G)	32.09	3.21	0.23
Income received by people aged < 16 (HY110G)	2.36	5.63	0.63
Regular inter-household cash transfer paid (HY130G)	8.41	4.73	0.18
Alimonies paid (HY131G)	2.99	1.48	.
Tax on income and social contributions (HY140G)	93.69	0.85	13.57
Net income components at personal level	% of individuals having received an amount	% of individuals with missing values	% of individuals with partial information
Employee cash or near cash income (PY010N)	54.20	0.57	0.78
Cash benefits or losses from self-employment (PY050N)	8.47	7.78	0.19
Pension from individual private plans (PY080N)	0.37	2.17	.

Unemployment benefits (PY090N)	16.46	.	.
Old age benefits (PY100N)	26.08	1.07	.
Survivor' benefits (PY110N)	1.09	.	.
Sickness benefits (PY120N)	2.28	.	.
Disability benefits (PY130N)	12.53	2.03	.
Gross income components at personal level			
Employee cash or near cash income (PY010G)	54.20	1.41	1.20
Non cash employee income (PY020G)	26.41	99.16	.
Non cash employee income: company car (PY021G)	5.72	19.72	.
Employer's social insurance contribution (PY030G)	54.14	.	100
Contributions to individual private pension (PY035G)	30.52	1.17	.
Cash benefits or losses from self-employment (PY050G)	8.47	50.14	2.44
Pension from individual private plans (PY080G)	0.37	2.17	.
Unemployment benefits (PY090G)	16.46	.	0.05
Old age benefits (PY100G)	26.08	1.55	.
Survivor' benefits (PY110G)	1.09	.	.
Sickness benefits (PY120G)	2.28	0.70	.
Disability benefits (PY130G)	12.53	3.30	.
Education-related allowances (PY140G)	1.77	6.73	.

Table 13 : Overview of the non-response for the income variables - % households having received an amount, % of households or persons with missing values and % of households or persons with partial information

2.3.3.6. TOTAL ITEM NON-RESPONSE AND NUMBER OF OBSERVATIONS IN THE SAMPLE AT UNIT LEVEL OF THE COMMON CROSS-SECTIONAL EUROPEAN UNION INDICATORS BASED ON THE CROSS-SECTIONAL COMPONENT OF EU-SILC AND FOR EQUIVALISED DISPOSABLE INCOME

In the table below an overview including interpretation for the non-response is presented.

Indicator	Achieved sample size (number of individuals)	Non-response
Mean Equivalised disposable income	15516	0
Risk of poverty threshold: one person household	2259	0
Risk of poverty threshold: household with 2 adults and 2 dependent children	2676	0
Risk of poverty rate by age	15516	0
Risk of poverty rate by gender	15516	0
Risk of poverty rate by most frequent activity	12377	213
Risk of poverty rate by household type	15516	0
Risk of poverty rate by household type: Single households	2259	0
Risk of poverty rate by tenure status	12590	0
Risk of poverty rate by work intensity of the household	13041	2475
Dispersion around at risk poverty threshold	15516	0
Relative median risk-of-poverty gap by age and gender	15516	0
Risk-of-poverty rate by age and gender before all transfers (including pensions)	15516	0
S80/S20 quintile share ratio	15516	0
Gini coefficient	15516	0

Table 14 : item non-response and number of observations at unit level of the common cross-sectional European Union indicators and for equivalised disposable income.

2.4. MODE OF DATA COLLECTION

In Fout! Verwijzingsbron niet gevonden. the distribution of household members aged 16 and over by 'data status' (RB250).

(Household members RB245=1)

	Total	RB250=11	RB250=12	RB250=13	RB250=14
Total	1590	1520	88	10946	36
%	100	12.07	0.7	86.94	0.29
Group 5 (start in 2019)	2962	409	28	2514	11
Group 2 (start in 2018)	2586	335	18	2228	5
Group 1 (start in 2017)	2928	303	16	2602	7
Group 4 (start in 2016)	2080	242	15	1815	8
Group 3 (start in 2015)	2034	231	11	1787	5

Table 15 : Distribution of household members aged 16 and over by RB250

	Total	RB260=2	RB260=7
Total	12466	11471	995
%	100	92.02	7.98
Group 5 (start in 2019)	2923	2692	231
Group 2 (start in 2018)	2563	2345	217
Group 1 (start in 2017)	2905	2267	238
Group 4 (start in 2016)	2057	1912	145
Group 3 (start in 2015)	2018	1854	164

Table 16 : Distribution of household members aged 16 and over by RB260

2.5. INTERVIEW DURATION

An error occurred in the time registration in our Blaise program for SILC 2019, so the number of minutes could not be measured. For SILC 2018, the mean duration was 38 minutes. Because of the integration

of the register incomes and the changes in the questionnaire, we believe that the mean duration of the individual questionnaire has decreased for SILC 2019.

2.6. IMPUTATION PROCEDURE

PRECEDING IMPORTANT REMARK

In contrast to 2004 and as 2005 – from 2006 onwards (so also in 2019) the calendar question (Q72 in the questionnaire) was presented to every respondent rather than only those who indicated that there had been a change in their social-economic position. It enabled us to assess and check much more thoroughly the link between the social-economic position and the income variables. Notably for the self-employed this resulted in a substantive number of cases (being identified as being self-employed) who would be otherwise (and who were to some extent in 2004) not identified as being self-employed. These cases mainly concern people in jobs ‘somewhere on the bridge’ between being self-employed and employee but who nevertheless indicated in the calendar that they were self-employed.

2.6.1. OVERALL STRATEGY: EMPHASIS ON INTERNAL INFORMATION AND INTEGRATION OF OUTLIER DETECTION-, IMPUTATION- AND CONTROL-PHASES.

Compared to SILC 2018 and earlier years, the amount of imputation is significantly reduced from SILC 2019 onwards because of the use of register information for the majority of the income variables for a large majority of the respondents. Only a handful of respondents provide all income information through the survey questions.

2.6.1.1. EMPHASIS ON INTERNAL INFORMATION.

We can't emphasize enough that to correct and impute our data (for any variable) we relied:

- a) **as much as possible on internal information present in the data itself**
- b) on formal and legal sources of information and
- c) only as final resort turned to statistical procedures (random imputations for ex.)

2.6.1.2. AN INTEGRATED STRATEGY.

As it was the case for previous SILC-surveys we used for SILC-2019 again an ‘integrated approach’ to organize the detection of outliers and the imputations. Crucial to the understanding of our way of working are the concepts of what we call ‘vertical’ and ‘horizontal integration’.

By ‘vertical integration’ we mean that the phases of outlier detection and imputation were done together for each variable separately (1) rather than that both phases were done separately for all variables together (2). The differences between (1) – the way we did things for SILC 2004 - and (2) the way it was done for SILC 2003 – are subtle but nevertheless more than semantics, especially when combined with horizontal integration.

By horizontal integration we mean that information for each respondent on one variable was checked against information on another variable or another source. Information on the monthly gross income for example was – if both possible and applicable- checked with information on the net income, the yearly income, the current income (if no changes had occurred), the household income, other ‘proxy’- variables to income (status etc...) and very important external sources of information like legislation.

The interplay between what we call vertical and horizontal integration leads to a dynamic strategy: variables are checked for outliers and inconsistencies, variables are compared to each other and corrected, (corrected) variables are immediately imputed consistently to the information in other (also corrected) variables – and this several times repeated.

We believe that the emphasis of this strategy on consistency of internal information for respondents throughout the survey and the use of external sources of information (legislation) is a far more

successful way of detecting outliers and imputing missing values compared to methods of screening for outliers entirely based on (univariate) distributional features of variables (box-plot methods for example) and imputation methods mainly based on statistical probability models (IVE for example).

OUTLIER DETECTION:

The shift in strategy also implies – of course - a shift in the techniques that are used. As far as the outlier detection concerns there is far less emphasis on univariate - purely distributional related methods like box-plots but more emphasis on inconsistency checks. For the income variables these checks were done in 2 ways: a) comparison of ratio's between variables and b) comparison of the relative position of a respondent's answer on one variable to its position on another variable.

a) Comparison of ratio's between variables:

Comparison of the ratio between two inputs on comparable income variables is a straightforward way to detect outliers. Atypical large or small ratios between gross and net variants of income variables are obviously an indication of 'something being wrong'.

b) Comparison of relative positions on income variables:

The central issue in this procedure is the comparison of two income variables by comparison of the normal scores calculated for each case on both variables, after log-transformation. The log-transformation is necessary to normalize the otherwise Poisson-distributed income variables.

The inputs of both comparable incomes are considered to be consistent if both normal scores are within predefined boundaries (for example -1,96 and 1,96) and/or the difference between the normal scores is limited (less than 1,96).

There is an indication of bias if the input of one of the incomes for a case is situated within 'normal boundaries' (-1.96 – 1.96) but the other input is not and/or if the difference between the two normal scores differ substantially (>1.96). In fact, the entire procedure consist out of 4 steps:

- Identification of the variables to be compared.
- Log-transformations, normality checks, calculation of means and standard deviations.
- Calculation of normal scores.
- Consistency control and identification of inconsistencies.

c) Other techniques :

There was explicitly more emphasis on the above techniques but this does not imply that the 'conventional' box-plot method was not used at all. In this method input outside the interval below were considered to be outliers:

[First Quartile – 1,5 * (Third Quartile – First Quartile) ; Third Quartile + 1,5 * (Third Quartile – First Quartile)]

Furthermore and as already mentioned, where applicable and usable legal maximums and minimums were also used to some extent.

Finally, we also checked for outliers via controls on a 'case to case' base in which we maximally used information of proxy-variables like professional status and other variables. In this process manifest errors in proxy- and/or other variables associated with the income variables were also removed/corrected (for example 'the number of months').

IMPUTATION

We did no longer make use of IVE. Instead we a) corrected (not imputed – in fact) a greater number of cases and if correction was not desirable or possible, but information on a directly comparable variable was present anyway (see section on internal information above), we b) resorted to direct imputation, via a regression model.

a) Corrections.

Corrections were also mainly done on basis of information in other comparable variables. Gross-net ratio of 12 - yearly income entered as monthly or vice versa - lead to simple corrections of the gross or the net, for example.

b) Regressions.

If correction was not desirable or possible but information on a directly comparable variable was present anyway, we resorted to direct imputation, via a regression model, of the variable for which input was missing. Below we describe how this was done for net –gross imputation, which were the most prevalent instances of that sort. The method was extended, however, to other imputations (imputations of the reference year income based on the current income, for example).

Missing values on gross income variables (PY010G, PY020G, ... and components) were, if collected, imputed on the basis of the corresponding net variables (PY010N, PY020N, ... and components). The implementation of this imputation procedure was quasi-similar for almost all (income) variables on which it was applied. The procedure implied 6-steps:

- 1) Identification of the 'reference cases' (both gross and net collected) and identification of the cases to be imputed (net collected – gross missing).
- 2) Calculation of the gross/net ratio for the reference cases. Cases with an extreme value on this ratio were excluded from further use in the procedure.
- 3) Curve estimation of the relation (regression model) between gross and net income. The best fitting model (linear, logarithmic, quadratic, exponential) was being implemented.
- 4) Implementation of the regression model for the reference cases to identify outliers.
- 5) Re-implementation of the regression model for the reference cases after removal of the outliers.
- 6) Actual imputation step: missing (gross) values are imputed on the basis of
 - a) net values and
 - b) the estimates for the relation between gross and net income assessed in the steps above.

In step 1 the cases of which both gross and net income were collected are identified. We refer to these cases as 'reference cases' (step 1). The relationship between their net and gross income serves as reference for the imputation of the gross incomes for the cases where only the net was collected (cases to be imputed).

To avoid bias in this imputation model atypical reference cases (both outliers and errors) were identified and removed at several steps in the procedure (step 2 and 4).

In step 2 (reference) cases for whom the ratio between gross and net income exceeded what can be considered typical for the taxation regime applicable to the income concerned, were excluded.

In the case of almost all variables the boundary value of this ratio was set at 2,5. This boundary was arbitrary chosen.

Scrutiny of the excluded cases, however, validates this value's potential to discriminate between incomes which were subjected to real(istic) taxation and outliers or errors.

The latter category seldom counted more than a few percent of the total population in the survey and their gross/net ratio often exceeded the 2,5 considerably.

Further exploration also revealed that the exclusion of these cases from the procedure results in a dramatic increase of the fit of the regression model on which the imputation is based.

In step 4 outliers in the regression model were identified and removed using default regression diagnostics.

The underlying probability model of the net-gross relation was assessed with SAS regression model or SAS logistic procedures (step 3). For most variables the linear model fitted the data well. For a few

variables the fit of the quadratic model was slightly better, however. Overall, and we underline this, the fit was very good and R-squares very high (always > 0.85).

The estimates of this regression model (step 5) served as direct input for the implementation of the actual imputation (step 6).

c) Other techniques.

Although we preferred the techniques above we were in some instances forced to resort to other techniques (due to lack of information – for example).

For some cases we imputed median values calculated after categorizing using relevant variables. Most of the median values imputed, were for example, calculated after categorization for status.

2.6.2. PARTICULAR CASES

GROSS/NET IMPUTATIONS.

For a limited number of monetary variables a limited number of respondents had given only a value for the gross variant of the variable (the opposite – only net is given - occurred much more). For these cases a net value was imputed on basis of the gross using the Belgian rules of taxation. A small number of net- pensions and unemployment benefits were imputed in this way.

IMPUTATION OF 'TOTAL HOUSING COST'

For the calculation of the total housing cost, we examined the current costs for small, average and large usage and used these amounts for both outlier detection and imputation, while taking into account other variables such as the number of household members and the household income. The cost for the water usage for example can be subdivided in subscriber money (fixed) and costs for the actual usage (variable). The cost for the usage of electricity depends largely whether the heating is electric or not: Singles in an apartment without electric heating consume approximately 600 kWh per year (~ 36 euro), while large consumers with accumulation warmth have an annual usage of approximately 20.000 kWh (~ 1200 euro).

IMPUTATION OF PARTIAL UNIT NON-RESPONSE

The method chosen for Belgium was imputation of an income for each member of the household who did not answer the questionnaire in case there was no Belcotax income. When Belcotax information is available, of course this income was taken. Imputation is based on the variable RB210 (basic activity status) of the individual given in the R-file. When the answer is missing or 4 (other inactive person), it is chosen not to impute any income. When available, we preferably used the longitudinal information's from 2018 for imputation. For the other cases the chosen method for imputation was imputation of a sub-category median based on age and sex. Net incomes were computed with a gross to net model, based on the imputed gross incomes.

COLLECTION VARIABLE COMPANY CAR

Since 2005, we decided to work with the national rules of the tax authorities. The benefit for individuals of using a company car for private goals was not directly assessed at the interview but afterwards calculated by applying the applicable taxation rules. The fiscal benefit of all nature that a person has - due to disposition of a company car for private goals - is calculated as:

value of the car * % based on the age of the car (year of registration) * number of months used * 6/7 * CO2%

The CO2 percentage is calculated based on the number grams CO2 emission compared to a reference value. This reference value depends on the type of fuel used. For the majority of the respondents, information about the company car is available in the Belcotax register. Yet, for some it is not because

of a narrow interpretation of the legislation, while in fact these respondents have a company car for private use. Additionally, when the information is available in the register, it is not always possible to isolate the company car from this amount. Therefore, the following steps were used to calculate the value for PY021:

- Register information when the value of the company car can be isolated
- Calculation of this value based on the formula of the tax authorities based on the variables: value of the car, year of registration, months in use, CO2 gram, type of fuel
- When the amount of our own calculation exceeds the amount of benefits in kind, including a company car, but where the company car could not be isolated. The amount was blocked on the level of the amount in the register.

IMPUTED RENT

From 2007 onwards a measure for 'imputed rent' needs to be added to the data.

In the QR-rapport for the 2007 we extensively reported on the method to calculate imputed rent. In the 2019 operation exactly the same method has been used. Results were very similar.

2.6.3. DESCRIPTION OF IMPUTATION PER TARGET VARIABLE

In the following table it is shown which imputation method we used for each target variable (and also for each component within the Belgian questionnaire). For information on imputation methods please check the document EU-SILC065 where a comprehensive outline is given on the subject. IMD_0 stands for no imputation, IMD_1 for deductive imputation, IMD_2 for statistical imputation and IMD_3 for gross/net conversion.

[Remark : Starting from 2012, some imputation codes were categorized differently, important changes are thus due to a change in those codes and not to a methodological change.]

VARIABLE	IMD_0	IMD_1	IMD_2	IMD_3
HY040G	95.94	0	4.06	0
HY050G	94.59	5.41	0	0
HY060G	100	0	0	0
HY070G	83.84	0	16.13	0
HY080G	94.47	0	5.53	0
HY081G	96.93	0	3.07	0
HY090G	89.86	0	10.14	0
HY100G	96.56	0	3.44	0
HY110G	93.75	0	6.25	0
HY120G	.	.	.	.
HY130G	95.10	0	4.90	0
HY131G	98.52	0	1.48	0

Table 17 : % Imputation method over the total number of observations per (target) variable – gross variables on household level

VARIABLE	IMD_0	IMD_1	IMD_2	IMD_3
HY040N	.	.	.	.
HY050N	94.68	5.32	0	0
HY060N	.	.	.	.
HY070N	.	.	.	.
HY080N	.	.	.	.
HY081N	.	.	.	.
HY090N	89.86	0	10.14	0
HY100N	.	.	.	.
HY110N	93.75	0	6.25	0
HY120N	.	.	.	.
HY130N	.	.	.	.
HY131N	.	.	.	.

Table 18 : % Imputation method over the total number of observations per (target) variable – NET variables on household level

VARIABLE	IMD_0	IMD_1	IMD_2	IMD_3
PY010G	98.23	0.23	0	1.54
PY020G	0.84	0	99.16	28.89
PY021G	80.28	0	19.72	0
PY030G	100	0	0	0
PY035G	0	100	0	0
PY050G	97.38	0	2.62	0
PY070G	.	.	.	.
PY080G	69.57	0	0	30.43
PY090G	100	0	0	0
PY100G	98.36	0.09	0	1.55
PY110G	100	0	0	0
PY120G	99.3	0	0	0.7
PY130G	96.83	0.82	0	2.35

Table 19 : % Imputation method over the total number of observations per (target) variable – gross variables on Personal level

VARIABLE	IMD_0	IMD_1	IMD_2	IMD_3
PY010N	99.63	0.31	0.06	0
PY020N	84.33	0	15.67	0
PY021N	63.47	0	19.72	16.81
PY030N	.	.	.	.
PY035N	.	.	.	.
PY050N	97.38	0	2.62	0
PY070N	.	.	.	.
PY080N	97.83	0	2.17	0
PY090N	100	0	0	0
PY100N	98.96	0.7	0.33	0
PY110N	100	0	0	0
PY120N	100	0	0	0
PY130N	98.22	0.25	0.89	0

Table 20 : % Imputation method over the total number of observations per (target) variable – Net variables on Personal level

3. COMPARABILITY

3.1. BASIC CONCEPTS AND DEFINITIONS

THE REFERENCE POPULATION

The reference population is all citizens living officially living at Belgian territory (population de jure). This means that the source of our sample is the central population register. This Register includes all private households and their current members residing in the territory. Persons living in collective households and in institutions are excluded from the target population.

(see also §2.3.1)

THE PRIVATE HOUSEHOLD DEFINITION

The definition of household that Eurostat recommends is used. Household is defined as a person living alone or a group of people who live together in the same dwelling and share expenditures including the joint provision of the essentials of living.

THE HOUSEHOLD MEMBERSHIP

The definition of household membership is the same as mentioned in the Eurostat document EU-SILC065/03 about the description of target variables (Chapter 'Units').

All household members of 16 year and older **at the end of the income reference period**, are selected for a personal interview.

THE INCOME REFERENCE PERIOD USED

The income reference period is a fixed twelve-month period, namely the previous calendar year. For SILC 2019, the income reference period is the year 2018.

THE PERIOD FOR TAXES ON INCOME AND SOCIAL INSURANCE CONTRIBUTIONS

This is also fixed twelve-month period, namely the previous calendar year. For SILC 2019, the period is the year 2018.

THE LAG BETWEEN THE INCOME REFERENCE PERIOD AND CURRENT VARIABLES

The income reference period is the previous calendar year (year 2018) and the current variables refer to the fieldwork period (April-November 2019). Therefore the lag is at minimum 4 months and at maximum 11 months.

THE TOTAL DURATION OF THE DATA COLLECTION OF THE SAMPLE

The fieldwork took mainly place from April to November 2019. 6 interviews also took place after November 2019 but they represent less than 0.1 % of the interviews.

	Frequency	Percent	Cumulative Percent
April	847	12.48	12.48
May	1483	21.85	34.33
June	1186	17.47	51.8
July	832	12.26	64.06
August	883	13.01	77.07
September	874	12.88	89.95
October	475	7	96.95
November	201	2.96	99.91
December	6	0.09	100

Table 21 : HB050 Month of the household interview

BASIC INFORMATION ON ACTIVITY STATUS DURING THE INCOME REFERENCE PERIOD

Basic information on activity status during the income reference period was mainly obtained via the calendar question (Q72) (in contrast to 2004 where it was obtained by combining the answer for question I8 (PL030) with the answer(s) for question(s) I38 (PL200) and for those with a change I40 (calendar question)). ALSO SEE REMARK 2.6.0.

3.2. COMPONENTS OF INCOME

3.2.1. DIFFERENCES BETWEEN THE NATIONAL DEFINITIONS AND STANDARD EU-SILC DEFINITIONS, AND AN ASSESSMENT, IF AVAILABLE, OF THE CONSEQUENCES OF THE DIFFERENCES MENTIONED WILL BE REPORTED FOR THE FOLLOWING TARGET VARIABLES.

Preliminary remark: various components are listed below, with additional explanations. The aim is to clarify the national situation about the various concepts, but it does not imply that there are differences between national and Eurostat definitions.

TOTAL HOUSEHOLD GROSS INCOME

$HY010 = PY010 + PY021G + PY050G + PY080G + PY090G + PY100G + PY110G + PY120G + PY130G + PY140G + HY040G + HY050G + HY060G + HY070G + HY080G + HY090G + HY110G.$

PY021G only contains the value of company.

PY020G is a new variable from 2008 on which contains in addition to company cars other non-cash income for employees such as luncheon vouchers, goods and services provided free or at reduced price by the employer, ...

TOTAL DISPOSABLE HOUSEHOLD INCOME

$HY020 = HY010 - HY140 - HY130$

We didn't take count of HY120G, because regular taxes on wealth do not exist in Belgium.

TOTAL DISPOSABLE HOUSEHOLD INCOME, BEFORE SOCIAL TRANSFERS OTHER THAN OLD AGE AND SURVIVORS' BENEFIT

HY022 = HY020 - tnetrans - HY050N - HY060G -HY070G

Tnetrans = PY090N+ PY120N + PY130N + PY140N

TOTAL DISPOSABLE HOUSEHOLD INCOME, BEFORE SOCIAL TRANSFERS INCLUDING OLD AGE AND SURVIVORS' BENEFIT

HY023 = HY020 - tnetran2 - HY050N - HY060G -HY070G.

tnetran2 = PY090N+ PY120N + PY130N + PY140G + PY100N + PY110N.

IMPUTED RENT

For more information on how imputed rent was implemented in the Belgian EU-SILC – see QR2008

INCOME FROM RENTAL OF PROPERTY OR LAND

Asked as Eurostat recommends. Income from rental of a property or land refers to the income received, during the income reference period, from renting a property (for example renting a dwelling –not included in the profit/loss of unincorporated enterprises-, receipts from boarders or lodgers, or rent from land) after deducting costs such as mortgage interest repayments, minor repairs, maintenance, insurance and other charges.

Interviewers receive the instruction in the interviewer manual to deduct the costs of renting the dwelling, with an extensive list of costs that should be deducted.

FAMILY/CHILDREN RELATED ALLOWANCES

Family / children related allowance includes:

- Income maintenance benefit in the event of childbirth (maternity leave, paternity leave, birth leave for co-parents)
- Adoption leave
- Breastfeeding leave, allowance for breastfeeding breaks & removal from work
- Birth grant
- Parental leave benefit
- Child allowance

From SILC 2008 onwards Belgium asked allowances received from the federal government and also birth grants given by some local authorities and medical organizations.

SILC Net 3 remark: payments by DAVO that DAVO cannot collect from the ex-partner should be in HY050 - those that DAVO can collect from the ex-partner should be in HY080.

Response: Our respondents only know what they receive from DAVO and report that during SILC interview. They cannot know to what extent DAVO is able to collect the alimony from the ex-partner or not. Additional information: we have each year only a few households who received something from DAVO (5 in 2017, 2 in 2018 and 9 in 2019).

Register information from SILC 2019 onwards: The part of HY050 that is taxable (maternity leave, paternity leave, birth leave for co-parents, adoption leave, parental leave, breastfeeding (breaks) leave and removal from work) is available in Belcotax for respondents with a Belcotax record. Yet, they are fiscally declared as unemployment or sickness benefits. Based on the calendar questions these allowances are attributed to HY050 and not to PY090 or PY120. Non-taxable parts (birth grant and child

allowance) are collected during the interview. For respondents without Belcotax record, the taxable parts are also collected during the interview.

SOCIAL EXCLUSION PAYMENTS NOT ELSEWHERE CLASSIFIED

Social benefits in the function 'social exclusion not elsewhere classified' includes for Belgium:

- Income support: periodic payments to people with insufficient resources.
- Additional benefits from OCMW/CPAS
- Other cash benefit: support for destitute and vulnerable persons to help alleviate poverty or assist in difficult situations.

Belgium only took into account the Benefits paid by the Public Social Welfare Organization (register information) and the additional benefits from OCMW/CPAS (interview information), not the benefits paid by private or non profit organizations.

HOUSING ALLOWANCES

The housing allowances for Belgium includes:

- Rent benefit
- Benefit to owner–occupiers: a means-tested transfer by a public authority to owner-occupiers to alleviate their current housing costs: in practice help with paying mortgages and/ or interest

It excludes:

- Social housing policy organized through the fiscal system

All capital transfers (in particular investment grants), for example rehabilitation subsidy and/or a building subsidy.

REGULAR INTER – HOUSEHOLD CASH TRANSFERS RECEIVED

Regular inter-household cash transfers received refer to regular monetary amounts received, during the income reference period, from other households or persons. More precise, we asked for 'alimony and child support' and 'regular cash support'.

INTEREST, DIVIDENDS, PROFIT FROM CAPITAL INVESTMENTS IN INCORPORATED BUSINESSES

Interest, dividends, profits from capital investment in an unincorporated business refer to the amount of interest from assets such as bank accounts, certificates of deposit, bonds, etc, dividends and profits from capital investment in an unincorporated business, in which the person does not work, received during the income reference period less expenses incurred.

For this variable (HY090), the imputation method has been adapted in 2012, so the observed decrease for this year cannot be interpreted as a real one. The impact on the main poverty indicators has been tested and the impact on those is minor.

As far as the category 'Voluntary retirement savings scheme' is concerned, in HY090 we only aim for the interest gained, not the total sum, but we understand that this might not really be disposable income. We will correct it in SILC 2020 and won't list this kind of profit anymore.

INTEREST PAID ON MORTGAGE

Interest paid on mortgage refers to the total gross amount, before deducting any tax credit or tax allowance, of mortgage interest on the main residence of the household during income reference period.

INCOME RECEIVED BY PEOPLE AGED UNDER 16

Income received by people aged under 16 is defined as the gross income received by all household members aged under sixteen during the income reference period. All taxable income from children under 16 year are taken from Belcotax. Additionally, we asked the reference person the annual amount received by all children under 16 together for the non-taxable parts, except educational allowances. The educational allowance for these children were collected with a separate question in the household questionnaire.

REGULAR TAXES ON WEALTH

This variable isn't asked/measured for the SILC2019 in Belgium. The reason is that the regular tax on wealth doesn't exist.

REGULAR INTER-HOUSEHOLD TRANSFERS PAID

Regular inter-household transfer paid refers to regular monetary amount paid, during the income reference period, to other households. More precise, we asked for 'alimony and child support' and 'regular cash support'.

TAX ON INCOME AND SOCIAL INSURANCE CONTRIBUTIONS

Tax on income refers to taxes on income, profits and capital gains. They are assessed on the actual or presumed income of individuals, households or tax-unit. They include taxes assessed on holdings of property, land or real estate when these holdings are used as a basis for estimating the income of their owners.

Taxes on income include the sum of the following calculations:

- (Gross income from salaries – net income salaries)
- + (Gross income from self-employments – net income from self-employments)
- + (Gross income from pension allowances – net income from pension allowances)
- + (Gross income from disability, illness allowances – net income disability, illness allowances)
- + (Gross income from jobseeker's allowances - net income from jobseeker's allowances)

We have also taken into account of the money that people have received from the taxes or that people have paid to the taxes in 2018 (based on their incomes of the year 2016 (declared in 2017)and/or 2017(declared in 2018)).

REPAYMENTS/RECEIPTS FOR TAX ADJUSTMENTS

Repayments/receipts for tax adjustments refer to the money paid to/received from Taxes Authorities related to the income received. This variable is already included in the variable ' tax on income and social contribution' (see above), so Belgium didn't provide this variable.

CASH OR NEAR-CASH EMPLOYEE INCOME

It includes:

- Wages and salaries paid in cash for time worked or work done in main and any secondary or casual job(s).
- Remuneration for time not worked (e.g. holiday payments)
- Enhanced rates of pay for overtime
- Fees paid to directors of incorporated enterprises
- Commissions, tips and gratuities
- Supplementary payments (e.g. thirteenth month payments, fourteenth month payments)
- Profit sharing and bonuses paid in cash
- Additional payments based on productivity
- Allowances paid for working in remote locations (regarded as part of the conditions of the job)
- Allowances for transport to or from work

Register information from SILC 2019 onwards: This variable is constructed based on Belcotax information for respondents with a Belcotax record. For those without a Belcotax record, those working with a tax-free PhD. bursary, and those working for an international/foreign employer, information is collected during the SILC interview.

NON-CASH EMPLOYEE INCOME AND COMPANY CAR.

Before SILC 2008 variable PY020 consisted only out of 'company Car'. From 2008 onwards other non-cash income elements needed to be added. 'Company car' itself was recorded in PY021.

In SILC-2019 PY020 consists of the following elements:

- Company car
- Reimbursement or paying for fuel
- Reimbursement or paying for car insurance
- Reimbursement or paying for private computer
- Luncheon vouchers
- Eco vouchers
- Accommodation provided for free
- Accommodation provided at reduced rent
- Reimbursement or paying for heating
- Reimbursement or paying for electricity
- Reimbursement or paying for telephone costs
- Reimbursement or paying internet costs
- Other benefits in kind

Register information from SILC 2019 onwards: Benefits in kind are collected during the interview, yet for some respondents Belcotax information is used for the company care (cf. §2.6.2).

EMPLOYERS' SOCIAL INSURANCE CONTRIBUTION

The outcome of variable PY030 was the result of the following model:

For blue collar workers: $((PY010G*1,08)/100)*50,5$

And for white collar workers: $PY010G/3$

Both equations were derived from social security rules.

CASH PROFITS OR LOSSES FROM SELF-EMPLOYMENT (INCLUDING ROYALTIES)

It includes:

- Net operating profit or loss accruing to working owners of, or partners in, an unincorporated enterprise, less interest on business loans.
- Royalties earned on writing, inventions, and so on not included in the profit/loss of unincorporated enterprises.
- Rentals from business buildings, vehicles, equipment, etc not included in the profit/loss of unincorporated enterprises, after deduction of related costs such as interest on associated loans, repairs and maintenance and insurance charges.

Register information from SILC 2019 onwards: Income from the sharing economy and royalties are collected from Belcotax, the other parts are collected during the survey interview.

VALUE OF GOODS PRODUCED FOR OWN CONSUMPTION

This variable is not recorded in the file because the value of goods produced for the own consumption does not constitute a significant component of the income. The importance of the component has been assessed using HBS.

PENSION FROM INDIVIDUAL PRIVATE PLANS

These pensions concern the Belgian third pillar pensions. For respondents without Belcotax record, and respondents with Belcotax record older than 59 years the information comes from the interview. For respondents with Belcotax record younger than 60 year, the Belcotax information is used.

NET-SILC3 remark: According to the Eurostat guidelines, 'any pension or annuity received in the form of interest or dividend income from individual private insurance plans should be included under PY080 (pension from individual private plan). Therefore, it seems that items (7) voluntary life insurance, not for financing the dwelling; and (8) voluntary retirement savings scheme should be considered under PY080 instead of HY090.

Response: The difference between PY080 and HY090 is in the amount. What is asked for HY090 concerns only the 'profit' made, i.e. what is additional to the money injected. What we measure in PY080 is what the people who retired and withdraw their third pillar pension receive at that moment, i.e. a quite large amount where part of it is 'profit' and part of it is what they have injected all the preceding years.

UNEMPLOYMENT BENEFITS

Unemployment benefits include:

- Full unemployment benefits: benefits compensating for loss of earnings
- Partial unemployment benefits
- Early retirement for labour market reasons
- Vocational training allowance
- Mobility and resettlement
- Severance and termination payments
- Redundancy compensation
- Subsistence income for persons entering the labour market

Register information from SILC 2019 onwards: For respondents with a Belcotax record, this variables is completely construed based on Belcotax. For respondents without Belcotax record, unemployment benefits are collected during SILC interview.

OLD-AGE BENEFIT

Old age benefit includes:

- Old age pensions
- Anticipated old age pensions
- Partial retirement pensions
- Survivor's benefits paid after the standard retirement age
- Disability cash benefits paid after standard retirement age

SILC NET 3 remark: public pension unspecified [*until SILC 2018 in the BE questionnaire*] & second pillar pension should be under PY080 instead of PY100.

Response: A public pension unspecified is used for respondents not exactly knowing which pension from the government they receive. This is absolute not a private pension, and should therefore be counted in PY100 and not in PY080. DOC 065 indicates for PY080 that it excludes pensions from mandatory employer based schemes, what we believe to be the second pillar pension in Belgium. Employers contribute - not the private individuals themselves, as such, it should be part of PY100 and not PY080.

Register information from SILC 2019 onwards: For respondents with a Belcotax record, the taxable parts of this variable are based on Belcotax, non-taxable parts are asked for during SILC interview. For respondents without Belcotax record, it is completely collected during SILC interview. The IGO-allowance is, however, a particular case. For users, it is important to isolate IGO from other types of old age benefits, yet this is not possible in Belcotax as the code is used for IGO as well as for other pensions. Therefore during SILC interview respondents were asked whether they have received IGO or not. If yes, the amounts in that specific code are then recorded as IGO, while if not they are recorded as other pension.

SURVIVORS' BENEFITS

It includes:

- Survivor's pension
- Death grant
- Other cash benefit

Register information from SILC 2019 onwards: For respondents with a Belcotax record, this variable is completely constructed based on Belcotax. For respondents without Belcotax record, survivor's benefits are collected during SILC interview.

SICKNESS' BENEFITS

It includes:

- Paid sick leave

Register information from SILC 2019 onwards: For respondents with a Belcotax record, this variable is completely constructed based on Belcotax. For respondents without Belcotax record, sickness benefits are collected during SILC interview.

DISABILITY BENEFITS

It includes:

- disability pension
- early retirement in case of reduced ability to work
- care allowance
- economic integration of the handicapped
- disability benefits to disabled children in their own right
- other cash benefit

Register information from SILC 2019 onwards: For respondents with a Belcotax record, the taxable parts of this variable are based on Belcotax, non-taxable parts are asked for during SILC interview. For respondents without Belcotax record, it is completely collected during SILC interview.

EDUCATION-RELATED ALLOWANCES

It includes allowances referring to grants, scholarships and other education help received by students.

However to obtain this variable we asked the information on household level instead of personal level because in Belgium this is paid on household level. Afterwards we attributed this amount to the persons in the individual file for beneficiaries of 16 years old or older, and in HY110 for younger beneficiaries.

CAPACITY TO FACE UNEXPECTED FINANCIAL EXPENSES (HS060)

We take into account the capacity with own means (no borrowing from banks or friends, ...). These opportunities were the subject of other parts of the question in the Belgian questionnaire.

3.2.2. THE SOURCE OR PROCEDURE USED FOR THE COLLECTION OF INCOME VARIABLES

Where possible register information is used for the income variables, as explained above. More specifically, the following variables are partially or completely constructed based on register information:

- PY010
- PY035
- PY050
- PY080

- PY090
- PY100
- PY110
- PY120
- PY130
- HY050
- HY060
- HY110

3.2.3. THE FORM IN WHICH INCOME VARIABLES AT COMPONENT LEVEL HAVE BEEN OBTAINED (E.G. GROSS, NET OF TAXES ON INCOME AT SOURCE AND SOCIAL CONTRIBUTIONS, NET OF TAX ON INCOME AT SOURCE, NET OF SOCIAL CONTRIBUTIONS)

Areas	Qr. Block	Target Variable	Unit of measurement	Tax or tax-exempt	If taxable, how the amount is recorded
Employee Income	PY010	Gross Employee Cash or near cash Income in reference period	Individual level	Taxable	Net + gross
	PY020	Gross Non-Cash Employee income (company car, luncheon vouchers)	Individual level	Some benefits in kind are not taxable, company car, telephone, personal computer, ... are taxable. Luncheon vouchers are not taxable for the employee and cannot be deducted from taxes by the employer. For the company car the taxable value is calculated taking into account the type of fuel, value of the car, year of registration and CO2 emission.	Net + gross
Self-employment Income	PY050	Gross Cash Income benefits/Losses from self-employment (including profit/loss from unincorporated enterprise, royalties)	Individual level	Taxable For losses, this means a deduction from taxes of this amount can be done on other income posts of that year or on income of the next year)	Net OR gross
Imputed rent	HY030	imputed rent	Household level	-	
Property income	HY090	Interest, dividends, profit from capital investments in unincorporated business	Individual level	Taxable	Net

	HY040	Income from rental of property or land	Household level	Taxable	Gross
	PY080	Regular pension from Private (non-ESSPROS) schemes	Individual level	Taxable	Net + gross
Current transfer received	HY050	Family-related allowances: parental leave benefits	Individual level	Taxable	Net + gross
Social benefits: ESSPROS		Family-related allowances:	Household level	Not taxable	
	HY060	Social assistance	Individual level	Not taxable	
	HY070	Housing allowances	Household level	Not taxable	
	PY090	Unemployment Benefits	Individual level	Taxable	Net + gross
	PY100	Old-age benefits	Individual level	Taxable	Net + gross
	PY110	Survivor's Benefits	Individual level	Taxable	Net + gross
	PY120	Sickness Benefits	Individual level	Taxable	Net + gross
	PY130	Invalidity Benefits	Individual level	Taxable	Net + gross
Regular inter household transfer received	PY140	Education-related Allowances	Household level	Not taxable	
	HY080	Regular inter-household cash transfers received	Household level	Not taxable, but taxed if alimentation	Gross
Other income received	HY110	Income received by people aged under 16	Household level for non-taxable, individual level for taxable (i.e. register)	Not taxable and taxable	Net + gross for taxable part
Interest payments	HY100	Interest repayments on mortgage	Household level	Taxable, this means a deduction from taxes can be done	Gross
Current transfers paid	HY130	Regular inter-household cash transfers paid	Household level	Not taxable or deductible, but taxed if alimentation	Gross

Table 22 : The form in which income variables at component level have been obtained

3.2.4. THE METHOD USED FOR OBTAINING INCOME TARGET VARIABLES IN THE REQUIRED FORM (I.E. GROSS VALUES)

See above for information on control, correction, imputation and creation of the gross target variables.

4. COHERENCE

Comparison with some results of Household Budget Survey 2018 (incomes 2018) are given hereafter.

Net HH income Summary Stats: comparison of HBS and EU-SILC

	HBS 2018	EU-SILC 2019 (EU Statistics on Income and Living Conditions)
Mean	41073.55	40879.84
Std Deviation	964186	824082.29
Median	32640	33963.94
Variance	930000000000	6791120000000
Mode	14400	15335
Range	814855	1255393
Interquartile Range	31286	33319

Population distribution by age group & gender / HBS vs EUSILC

AGE	HBS 2018		EU-SILC 2019 (EU Statistics on Income and Living conditions)	
	Frequency	Percent	Frequency	Percent
Total	11056446	100	11295520	100
Age 0-25	3481382	31.94	3371702	29.85
Age 26-45	3166632	28.64	2991995	26.49
Age 46 -64	2610485	23.61	2894884	25.63
Age 65-74	934107	8.45	1129534	10
Age 75+	863841	7.81	907405	8.03

	HBS 2018		EU-SILC 2019 (EU Statistics on Income and Living conditions)	
Gender	Frequency	Percent	Frequency	Percent
Total	11056446	100	11295520	100
Men	5314136	48.06	5580685	49.41
Women	5741977	51.94	5714835	50.59

The sample of HBS 2018 is part of the LFS sample, where households composed exclusively of persons aged 77+ are not taken into account. There are thus far less old people in the HBS survey, which is a non-coverage error.

ANNEX: CONFIDENCE INTERVALS

Confidence intervals (95%) for the common cross-sectional EU indicators.

Indicator	Subpopulation (if any)	N	value	CL95low	CL95high	Half length
Poverty rate	(ALL)	15516	14.8	13.3	16.3	1.5
Poverty rate	Male	7597	14.6	13.2	16.0	1.4
Poverty rate	Female	7919	15.0	13.3	16.7	1.7
Poverty rate	Age 0-64	12529	14.6	12.9	16.3	1.7
Poverty rate	Age 16+	12590	13.8	12.5	15.1	1.3
Poverty rate	Age 16-64	9603	13.2	11.7	14.7	1.5
Poverty rate	Age 0-15	2926	19.0	16.1	21.9	2.9
Poverty rate	Age 16-24	1593	16.3	10.9	21.7	5.4
Poverty rate	Age 25-49	4714	12.7	11.4	14.0	1.3
Poverty rate	Age 50-64	3296	12.6	11.1	14.1	1.5
Poverty rate	Age 65+	2987	15.7	13.7	17.7	2.0
Poverty rate	Age 0-17	3268	18.9	15.8	22.0	3.1
Poverty rate	Age 18-64	9261	13.1	11.8	14.4	1.3
Poverty rate	One person hh under 65 years	1309	22.5	20.0	25.0	2.5
Poverty rate	One person hh over 65 years	950	16.6	13.9	19.3	2.7
Poverty rate	One person hh male	1048	20.0	16.9	23.1	3.1
Poverty rate	One person hh female	1211	20.3	17.8	22.8	2.5
Poverty rate	One person hh total	2259	20.2	18.3	22.1	1.9
Poverty rate	2 adults (no children) both less 65 years	1984	7.0	5.2	8.8	1.8
Poverty rate	2 adults (no children) at least one 65+ years	2120	15.5	12.9	18.1	2.6
Poverty rate	Other households no dependent children	933	6.6	3.9	9.3	2.7
Poverty rate	Single parent hh + one or more dependent children	1299	34.6	29.2	40.0	5.4
Poverty rate	2 adults + one dependent child	1533	12.3	9.2	15.4	3.1
Poverty rate	2 adults + two dependent children	2676	7.4	5.4	9.4	2.0
Poverty rate	2 adults + three or more dependent children	1534	24.1	19.6	28.6	4.5
Poverty rate	Other households with dependent children	1106	11.4	0.0	25.8	14.4
Poverty rate	HH without dependent children	7296	13.4	12.2	14.6	1.2
Poverty rate	HH with dependent children	8148	16.1	13.6	18.6	2.5
Poverty rate	Owner or rent free	11351	8.2	7.2	9.2	1.0
Poverty rate	Tenant	4165	32.3	27.6	37.0	4.7
Poverty rate	Employed	5894	4.8	4.1	5.5	0.7

Poverty rate	Unemployed	466	47.9	43.2	52.6	4.7
Poverty rate	Retired	3309	13.4	11.1	15.7	2.3
Poverty rate	Other inactive	2708	28.9	26.0	31.8	2.9
Poverty rate	Low level of education	3396	25.3	21.9	28.7	3.4
Poverty rate	Medium level of education	4402	13.1	11.5	14.7	1.6
Poverty rate	High level of education	4708	5.8	5.0	6.6	0.8
Poverty rate	country of birth BE	10253	10.4	8.9	11.9	1.5
Poverty rate	country of birth EU 28 (not BE)	1000	18.5	15.5	21.5	3.0
Poverty rate	country of birth non-EU 28	1290	38.4	34.5	42.3	3.9
Poverty rate	nationality BE	11074	11.8	10.3	13.3	1.5
Poverty rate	nationality EU 28 (not BE)	899	19.3	15.9	22.7	3.4
Poverty rate	nationality non-EU 28	543	42.9	37.3	48.5	5.6
Poverty rate	Region: Brussels	2673	31.4	29.5	33.3	1.9
Poverty rate	Region: Flemish Region	7735	9.8	8.6	11.0	1.2
Poverty rate	Region: Walloon Region	5108	18.3	14.4	22.2	3.9
AROPE	(ALL)	15516	19.5	18.6	20.4	0.9
AROPE	Male	7597	18.9	17.8	20.0	1.1
AROPE	Female	7919	20.0	19.0	21.0	1.0
AROPE	Age 0-64	12529	20.1	19.1	21.1	1.0
AROPE	Age 16+	12590	18.8	17.9	19.7	0.9
AROPE	Age 16-64	9603	19.5	18.5	20.5	1.0
AROPE	Age 0-15	2926	22.2	19.8	24.6	2.4
AROPE	Age 16-24	1593	22.9	20.1	25.7	2.8
AROPE	Age 25-49	4714	17.5	16.3	18.7	1.2
AROPE	Age 50-64	3296	21.0	19.3	22.7	1.7
AROPE	Age 65+	2987	16.5	14.5	18.5	2.0
AROPE	Age 0-17	3268	22.3	20.2	24.4	2.1
AROPE	Age 18-64	9261	19.3	18.4	20.2	0.9
AROPE	One person hh under 65 years	1309	35.4	32.5	38.3	2.9
AROPE	One person hh over 65 years	950	18.4	15.5	21.3	2.9
AROPE	One person hh male	1048	29.3	25.9	32.7	3.4
AROPE	One person hh female	1211	28.0	25.1	30.9	2.9
AROPE	One person hh total	2259	28.6	26.4	30.8	2.2
AROPE	2 adults (no children) both less 65 years	1984	13.8	11.8	15.8	2.0
AROPE	2 adults (no children) at least one 65+ years	2120	17.2	14.6	19.8	2.6
AROPE	Other households no dependent children	933	10.4	7.1	13.7	3.3
AROPE	Single parent hh + one or more dependent children	1299	44.4	39.2	49.6	5.2
AROPE	2 adults + one dependent child	1533	17.3	13.4	21.2	3.9

AROPE	2 adults + two dependent children	2676	8.4	6.3	10.5	2.1
AROPE	2 adults + three or more dependent children	1534	25.9	21.2	30.6	4.7
AROPE	Other households with dependent children	1106	16.6	11.0	22.2	5.6
AROPE	HH without dependent children	7296	19.0	17.7	20.3	1.3
AROPE	HH with dependent children	8148	19.8	18.1	21.5	1.7
AROPE	Owner or rent free	11351	11.0	9.9	12.1	1.1
AROPE	Tenant	4165	42.0	39.5	44.5	2.5
AROPE	Employed	5894	6.2	5.4	7.0	0.8
AROPE	Unemployed	466	70.1	65.5	74.7	4.6
AROPE	Retired	3309	15.5	13.4	17.6	2.1
AROPE	Other inactive	2708	42.7	40.9	44.5	1.8
AROPE	Low level of education	3396	31.7	29.7	33.7	2.0
AROPE	Medium level of education	4402	19.2	17.6	20.8	1.6
AROPE	High level of education	4708	8.6	7.6	9.6	1.0
AROPE	country of birth BE	10253	15.3	14.3	16.3	1.0
AROPE	country of birth EU 28 (not BE)	1000	24.1	20.4	27.8	3.7
AROPE	country of birth non-EU 28	1290	44.0	40.0	48.0	4.0
AROPE	nationality BE	11074	16.8	15.8	17.8	1.0
AROPE	nationality EU 28 (not BE)	899	24.8	20.9	28.7	3.9
AROPE	nationality non-EU 28	543	47.3	41.5	53.1	5.8
AROPE	Region: Brussels	2673	37.8	35.9	39.7	1.9
AROPE	Region: Flemish Region	7735	13.2	12.0	14.4	1.2
AROPE	Region: Walloon Region	5108	24.6	22.9	26.3	1.7
LWI	(ALL)	15516	12.4	11.6	13.2	0.8
LWI	Male	7597	11.9	11.1	12.7	0.8
LWI	Female	7919	12.9	11.8	14.0	1.1
LWI	Age 0-64	12529	12.4	11.6	13.2	0.8
LWI	Age 16+	12590	13.2	12.4	14.0	0.8
LWI	Age 16-64	9603	13.2	12.4	14.0	0.8
LWI	Age 0-15	2926	10.2	8.7	11.7	1.5
LWI	Age 16-24	1593	14.6	12.1	17.1	2.5
LWI	Age 25-49	4714	10.0	9.2	10.8	0.8
LWI	Age 50-64	3296	19.6	17.9	21.3	1.7
LWI	Age 65+	2987	.	.	.	.
LWI	Age 0-17	3268	10.4	9.0	11.8	1.4
LWI	Age 18-64	9261	13.2	12.4	14.0	0.8
LWI	One person hh under 65 years	1309	29.8	27.0	32.6	2.8
LWI	One person hh over 65 years	950	.	.	.	.
LWI	One person hh male	1048	28.2	24.3	32.1	3.9

LWI	One person hh female	1211	32.3	27.4	37.2	4.9
LWI	One person hh total	2259	29.8	27.0	32.6	2.8
LWI	2 adults (no children) both less 65 years	1984	11.0	9.1	12.9	1.9
LWI	2 adults (no children) at least one 65+ years	2120	35.5	28.2	42.8	7.3
LWI	Other households no dependent children	933	9.5	6.1	12.9	3.4
LWI	Single parent hh + one or more dependent children	1299	27.3	22.0	32.6	5.3
LWI	2 adults + one dependent child	1533	9.9	7.2	12.6	2.7
LWI	2 adults + two dependent children	2676	3.8	2.5	5.1	1.3
LWI	2 adults + three or more dependent children	1534	9.0	6.1	11.9	2.9
LWI	Other households with dependent children	1106	8.7	4.7	12.7	4.0
LWI	HH without dependent children	7296	17.6	16.1	19.1	1.5
LWI	HH with dependent children	8148	10.0	8.8	11.2	1.2
LWI	Owner or rent free	11351	5.9	5.1	6.7	0.8
LWI	Tenant	4165	28.5	25.6	31.4	2.9
LWI	Employed	5894	0.3	0.0	0.7	0.4
LWI	Unemployed	466	63.0	57.9	68.1	5.1
LWI	Retired	3309	70.8	59.1	82.5	11.7
LWI	Other inactive	2708	36.0	34.4	37.6	1.6
LWI	Low level of education	3396	28.4	25.9	30.9	2.5
LWI	Medium level of education	4402	13.7	12.2	15.2	1.5
LWI	High level of education	4708	5.1	4.3	5.9	0.8
LWI	country of birth BE	10253	11.4	10.5	12.3	0.9
LWI	country of birth EU 28 (not BE)	1000	11.8	8.9	14.7	2.9
LWI	country of birth non-EU 28	1290	25.6	21.6	29.6	4.0
LWI	nationality BE	11074	12.3	11.4	13.2	0.9
LWI	nationality EU 28 (not BE)	899	12.2	9.3	15.1	2.9
LWI	nationality non-EU 28	543	27.1	21.3	32.9	5.8
LWI	Region: Brussels	2673	24.1	22.3	25.9	1.8
LWI	Region: Flemish Region	7735	7.4	6.4	8.4	1.0
LWI	Region: Walloon Region	5108	17.1	15.3	18.9	1.8
SMD	(ALL)	15516	4.4	3.8	5.0	0.6
SMD	Male	7597	4.2	3.6	4.8	0.6
SMD	Female	7919	4.5	3.8	5.2	0.7
SMD	Age 0-64	12529	5.0	4.3	5.7	0.7
SMD	Age 16+	12590	4.1	3.6	4.6	0.5
SMD	Age 16-64	9603	4.8	4.2	5.4	0.6
SMD	Age 0-15	2926	5.5	4.3	6.7	1.2

SMD	Age 16-24	1593	5.3	3.7	6.9	1.6
SMD	Age 25-49	4714	4.7	4.0	5.4	0.7
SMD	Age 50-64	3296	4.7	3.9	5.5	0.8
SMD	Age 65+	2987	1.6	1.1	2.1	0.5
SMD	One person hh under 65 years	3268	5.4	4.3	6.5	1.1
SMD	Age 0-17	9261	4.8	4.2	5.4	0.6
SMD	Age 18-64	1309	10.3	8.7	11.9	1.6
SMD	One person hh over 65 years	950	2.5	1.5	3.5	1.0
SMD	One person hh male	1048	8.4	6.8	10.0	1.6
SMD	One person hh female	1211	6.0	4.6	7.4	1.4
SMD	One person hh total	2259	7.1	6.0	8.2	1.1
SMD	2 adults (no children) both less 65 years	1984	3.2	1.9	4.5	1.3
SMD	2 adults (no children) at least one 65+ years	2120	1.3	0.5	2.1	0.8
SMD	Other households no dependent children	933	1.7	0.3	3.1	1.4
SMD	Single parent hh + one or more dependent children	1299	11.9	8.7	15.1	3.2
SMD	2 adults + one dependent child	1533	3.9	1.9	5.9	2.0
SMD	2 adults + two dependent children	2676	2.2	1.0	3.4	1.2
SMD	2 adults + three or more dependent children	1534	5.0	2.3	7.7	2.7
SMD	Other households with dependent children	1106	4.9	1.8	8.0	3.1
SMD	HH without dependent children	7296	3.8	3.3	4.3	0.5
SMD	HH with dependent children	8148	4.8	3.8	5.8	1.0
SMD	Owner or rent free	11351	0.9	0.6	1.2	0.3
SMD	Tenant	4165	13.5	11.6	15.4	1.9
SMD	Employed	5894	1.8	1.3	2.3	0.5
SMD	Unemployed	466	19.1	15.2	23.0	3.9
SMD	Retired	3309	1.7	1.2	2.2	0.5
SMD	Other inactive	2708	9.4	8.3	10.5	1.1
SMD	Low level of education	3396	6.8	5.8	7.8	1.0
SMD	Medium level of education	4402	4.7	3.8	5.6	0.9
SMD	High level of education	4708	1.4	1.1	1.7	0.3
SMD	country of birth BE	10253	3.0	2.5	3.5	0.5
SMD	country of birth EU 28 (not BE)	1000	5.8	3.9	7.7	1.9
SMD	country of birth non-EU 28	1290	12.0	9.8	14.2	2.2
SMD	nationality BE	11074	3.4	2.9	3.9	0.5
SMD	nationality EU 28 (not BE)	899	5.1	3.5	6.7	1.6
SMD	nationality non-EU 28	543	16.0	12.4	19.6	3.6
SMD	Region: Brussels	2673	10.6	9.2	12.0	1.4

SMD	Region: Flemish Region	7735	1.9	1.3	2.5	0.6
SMD	Region: Walloon Region	5108	6.7	5.3	8.1	1.4
Poverty rate before transfers including pensions	(ALL)	15516	25.4	24.3	26.5	1.1
Poverty rate before transfers including pensions	Male	7597	25.0	23.7	26.3	1.3
Poverty rate before transfers including pensions	Female	7919	25.7	24.6	26.8	1.1
Poverty rate before transfers including pensions	Age 0-15	3108	31.1	28.4	33.8	2.7
Poverty rate before transfers including pensions	Age 16+	12590	24.0	23.0	25.0	1.0
Poverty rate before transfers including pensions	Age 16-64	9603	25.5	24.3	26.7	1.2
Poverty rate before transfers including pensions	Age 65+	2987	18.9	16.9	20.9	2.0
Poverty rate before transfers excluding pensions	(ALL)	15516	42.5	41.5	43.5	1.0
Poverty rate before transfers excluding pensions	Male	7597	40.4	39.1	41.7	1.3
Poverty rate before transfers excluding pensions	Female	7919	44.5	43.4	45.6	1.1
Poverty rate before transfers excluding pensions	Age 0-15	3108	32.4	29.9	34.9	2.5
Poverty rate before transfers excluding pensions	Age 16+	12590	44.9	44.0	45.8	0.9
Poverty rate before transfers excluding pensions	Age 16-64	9603	31.4	30.3	32.5	1.1
Poverty rate before transfers excluding pensions	Age 65+	2987	92.1	90.9	93.3	1.2
AROP 40% median income	(ALL)	15516	2.8	2.3	3.3	0.5
AROP 50% median income	(ALL)	15516	7.3	6.6	8.0	0.7
AROP 70% median income	(ALL)	15516	24.2	23.3	25.1	0.9
Mean equivalised disposable income	(ALL)	15516	26275.0	25980.5	26569.5	294.5

Median equivalised disposable income	(ALL)	15516	24608.0	24333.2	24882.8	274.8
S80/S20	(ALL)	15516	3.6	3.3	3.9	0.3
Gini coefficient	(ALL)	15516	25.1	24.4	25.8	0.7
RMG	(ALL)	2285	16.3	15.8	16.8	0.5
RMG	Female	1206	15.4	15.0	15.8	0.4
RMG	Male	1079	17.3	14.4	20.2	2.9
RMG	Age 16-24	280	19.1	16.1	22.1	3.0
RMG	Age 16+	1712	16.6	15.6	17.6	1.0
RMG	Age 16-64	1289	18.6	17.8	19.4	0.8
RMG	Age 65+	423	11.5	11.0	12.0	0.5
Median disposable income below poverty	(ALL)	2285	12356.0	12103.5	12608.5	252.5