Final Quality Report

Relating to the

EU-SILC Operation 2004-2006

Austria

STATISTICS AUSTRIA

The Information Manager

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Introductory remark to the reader

The present document presents quality evaluation criteria for the EU-SILC 2006 operation as foreseen in Council Regulation No. 1177/2003 and follows the structure outlined in Commission Regulation No. 28/2004. To avoid redundancies with the Intermediate Quality Report for the EU-SILC operation 2006 this Final Quality Report has a clear focus on the EU-SILC longitudinal component, strictly following the structure specified in Annex III of the aforementioned Commission Regulation.

In Austria EU-SILC operations started in 2004. A rotational design was implemented to integrate the cross sectional and longitudinal component from 2007 onwards. By the year 2006 the latter has not fully matured yet. The EU-SILC operation 2006 contains a part of the sample which has been traced since the original sample was drawn. Currently, two of the 4 rotations which form the total sample of the EU-SILC operation 2006 is panel of a duration of 3 consecutive years: 2004, 2005, 2006. Council Regulation No. 1177/2003 defines characteristics of the data in article 5 as the "The longitudinal component shall cover at least four years". Consequently, before the EU SILC operation 2007 no longitudinal component in the sense defined by the Regulation can be available in Austria.

Nonetheless evaluation criteria can be obtained for the panel in its present condition. To direct reader's attention in particular to the longitudinal component and illustrate its quality, Statistics Austria decided to concentrate on the sample's part which was eligible to be traced between 2004 and 2006, i.e. the rotational groups R3 & R4. Where necessary this is complemented by information on the full sample of the cross-sectional component 2006 (R1-R4).

This option excludes two particular alternatives. Evaluation criteria for the single rotation R4 which will also be included in the EU-SILC sample 2007 are not presented separately. This is to avoid redundancies to the subsequent Final Quality Report of the EU-SILC 2007 operation. In the EU-SILC operation 2007 the rotational group R4 will represent the first fully matured longitudinal component from which the longitudinal at-persistent-risk-of-poverty indicator will be calculated and which will take centre stage in the relevant Quality Report. Further, Statistics Austria refrained from repeating the quality evaluation criteria for all the relevant rotations i.e. 2004-05-06-07 (R4); 2004-05-06 (R3); 2005-06-07-08 (R1) as well as the dropped rotation 2004-05 and the three possible panels which can be reconstructed upon this basis, i.e. 2004-05-06, 2004-05 and 2005-06. As a consequence of the rotational design an incomprehensible number of tables would have to be repeated for all these combinations of waves and figures different subsamples.

The rotational design is optional and the present situation occurs only in the initial phase of its implementation. Hence, while remaining perfectly in accordance with the regulations, we are convinced that treating the presently available 3-year panel as if it were "the longitudinal component" before reaching the final stage of maturity is the most useful strategy for raising the reader's awareness of the quality of the EU-SILC 2006 operation in Austria.

1. Common longitudinal European Union Indicators based on the longitudinal component of EU-SILC

In EU-SILC 2006 comprises a panel over three years 2004 – 2005 – 2006. Since the longitudinal component with a duration of at least 4 years is not fully matured yet, no longitudinal indicators are currently specified for this data structure.

2.   Accuracy

Accuracy refers to the closeness of calculations and estimates to the exact or true value.

2.1.   Sampling Design

2.1.1. Type of sampling

The longitudinal component of EU-SILC 2006 as transmitted to EUROSTAT by mid-June consists of the rotational groups one, three and four of EU-SILC 2004[1] and the rotational groups three and four of the cross-sectional sample in EU-SILC 2005 and 2006.

The sample for the first wave of the longitudinal component was drawn from the central registration register ZMR (*Zentrales Melderegister*) a constantly updated population register based on the register of residence. The Ministry of the Interior administers this register. 5712 addresses were selected with a simple random sampling procedure.

2.1.2. Sampling units

Sampling units are dwelling units registered in the ZMR. The sampling frame consisted of all accommodations with at least one person aged 16 or older who has her/his main residence (*Hauptwohnsitzmeldung*) in these accommodations. The following units were excluded: institutional housing facilities, dwelling units in which all persons with their main residence in this unit were younger than 16 years and units which have been selected for the sample of EU-SILC 2003.

2.1.3. Stratification criteria

Not applicable, the sample was drawn in a simple random sampling procedure.

2.1.4. Sample size and allocation criteria

The necessary sample size for Austria was calculated according to the Commission regulation to guarantee 4,500 Households cross-sectionally and 3,250 household longitudinally under simple random sampling (deff = 1). A longitudinal response rate of 93% and a 60% response rate for first wave households were envisaged.

The cross-sectional sample of EU-SILC 2004 consisted of 8,000 addresses from which the fieldwork institute actually used only 7,514 addresses. Of these, 5.712 addresses were randomly allocated to the rotations to be included in the longitudinal sample to be followed up until 2006. Originally rotational groups three and four should have been interviewed again for EU-SILC 2005. But due to various problems with the fieldwork in 2005 (which have been described in the Intermediate Quality Report for EU-SILC 2005), the rotational group one of EU-SILC 2004 was added to the rotational group four in 2005[2] to obtain a sufficiently large longitudinal sample. Thus, all households of the rotational groups one, three and four successfully interviewed in 2004 were selected again in 2005. Accordingly, the longitudinal component of EU-SILC 2006 consists of the rotational groups one, three and four of 2004 and the rotational groups three and four of 2005 and 2006.

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[1]   As described in the intermediate quality report relating to the operation of 2005, the rotational group one of 2004, which under normal circumstances would have dropped out of the sample in 2005, was added to the rotational group 4 in 2005 to secure a sufficient number of households in the longitudinal sample.

[2]   Variable db075 was recoded from 1 to 4 for these households in the longitudinal component of 2004 to allow the linkage of the rotational groups.

Figure 1: Rotational design - longitudinal design 2004 & 2005 & 2006

Longitudinal subsample
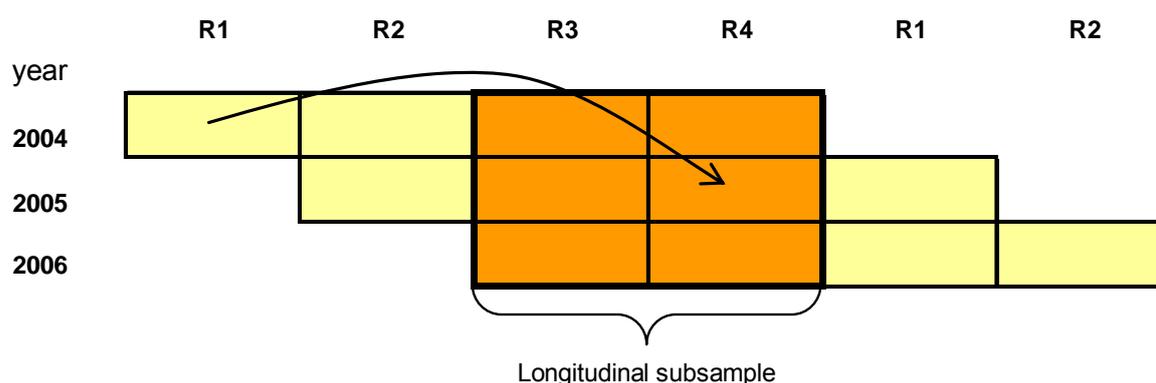
The dataset of the longitudinal component consists, overall, of 12,105 records: the original households of the first wave 2004 (N = 5,712), the follow-up households 2005 (N = 3,439), the split households 2005 (N = 103), the follow-up households of 2006 (N = 2783) and the split households of 2006 (N = 68).

The total of 8,068 completed interviews consists of the 3,439 interviews in 2004, the 2,316 interviews with followed-up households in 2005, the 50 interviews with split households in 2005, the 2,237 interviews with follow-up households in 2006 and the 26 interviews with split households in 2006.

In 2005 all households successfully interviewed in 2004 were followed-up (N = 3,439). Hence the number of issued addresses in 2005 is the same as the number of accepted interviews in 2004. These households and 103 split households constitute then the 3,542 used addresses of 2005. The households provided 2005 2,366 interviews (2,316 follow-up and 50 split). The households providing accepted interviews in 2005 plus the households successfully interviewed in 2004 but not 2005, form the basis of the 2,783 follow-up households of 2006. Adding the 68 split households, these constitute the basis of 2,851 addresses of 2006. These households finally provided us with 2,263 accepted household interviews.

Table 1: Sample size, addresses and household interviews (R3 and R4)

| | 2004 | | 2005 | | | | 2006 | | | |
| | | | Follow-up households | | Split households | | Follow-up households | | Split households | |
	N	%	N	%	N	%	N	%	N	%
Longitudinal component										
Used addresses	5,712	100.0	3,439	100.0	103	100.0	2,783	100.0	68	100.0
Addresses existent	5,615	98.3	3,439	100.0	103	100.0	2,783	100.0	68	100.0
Addresses not existent	97	1.7	0	0.0	0	0.0	0	0.0	0	0.0
Gross sample	5,615	100.0	3,439	100.0	103	100.0	2,783	100.0	68	100.0
Addresses successfully contacted	5,544	98.7	3,354	97.5	92	89.3	2,707	97.3	63	92.6
Addresses not successfully contacted	71	1.3	85	2.5	11	10.7	76	2.7	5	7.4
Successfully contacted addresses	5,544	100.0	3,354	100.0	92	100.0	2,707	100.0	63	100.0
Household questionnaire completed	3,505	63.2	2,316	69.1	50	54.3	2,237	82.6	26	41.3
Refusal to co-operate	1,300	23.4	646	19.3	17	18.5	302	11.2	18	28.6
Entire household away for the duration of fieldwork	537	9.7	328	9.8	25	27.2	139	5.1	17	27.0
household unable to respond	29	0.5	57	1.7	0	0.0	29	1.1	1	1.6
Other reasons	173	3.1	7	0.2	0	0.0	0	0.0	1	1.6
Successful household questionnaire	3,505	100.0	2,316	100.0	50	100.0	2,237	100.0	26	100.0
Interview accepted for database	3,439	98.1	2,316	100.0	50	100.0	2,237	100.0	26	100.0
Interview rejected	66	1.9	0	0.0	0	0.0	0	0.0	0	0.0

Source: EU-SILC longitudinal sample 2004, 2005, 2006

The following table presents a breakdown of addresses/households and persons/personal interviews per year. The households and persons presented in the tables are all households and persons that where present in the respective wave.

Table 2: Households and persons in the longitudinal component (R3 and R4)

	2004	2005	2006
used addresses	5,712	3,542	2,851
successfully contacted addresses	5,544	3,446	2,770
successful and accepted interview	3,439	2,366	2,263
persons	8,726	6,146	5,751
personal interviews	7,009	4,865	4,584

Source: EU-SILC longitudinal sample 2004, 2005, 2006

2.1.5. Sample selection scheme

Not applicable, since Statistics Austria employed a simple random sample.

2.1.6. Sample distribution over time

In 2004, the fieldwork period took only 5 months. Most interviews were conducted in the four month period from March to June. After the change of the fieldwork institute in 2005 the fieldwork period of the operation of EU-SILC 2005 started one month later and was extended until November.

Table 3: Number of successful interviews by date of interview (R3 and R4)

	2004	2005	2006
March	804		
April	793	175	437
May	865	446	686
June	936	439	485
July	41	336	374
August		213	189
September		119	92
October		378	
November		260	
Total	3,439	2,366	2,263

Source: EU-SILC longitudinal sample 2004, 2005, 2006

2.1.7. Renewal of the sample: rotational groups

The year 2004 was the initial year of the survey. A new sample was drawn and the rotational groups were determined by a random selection process that ensured the required minimum size of the rotational groups in the following years.

Basically, in 2005 the rotational groups R3 and R4 of the longitudinal sample should have been interviewed again and rotational group R1 should have been dropped from the sample. But due to problems of the fieldwork institute to gather the required number of interviews, the rotational group R1 of 2004 was added to rotational group R4 of 2005 to secure a sufficient number of households in the following waves.

Table 4: Addresses and completed interviews in 2004-2006 by rotational group (R3 and R4)

	2004		2005		2006	
	Used adresses	Completed and accepted interviews	Used adresses	Completed and accepted interviews	Used adresses	Completed and accepted interviews
R3	1,925	1,163	1,200	825	970	784
R4	3,787	2,276	2,342	1,541	1,881	1,479
Total	5,712	3,439	3,542	2,366	2,851	2,263

Source: EU-SILC longitudinal sample 2004, 2005, 2006

R4 contains 1703 households which were coded as R1 in the 2004 cross-sectional sample

2.1.8. Weighting[3]

The longitudinal data set for individuals in EU SILC 2006 contains information on the eligible individuals traced from original sample households in EU SILC 2004 or EU-SILC 2005.

Four sample populations are to be distinguished in the longitudinal data files:

(1) A majority of successfully traced respondents

(2) individuals born, or entering sample households in 2005 or 2006 (co-residents)

(3) original respondents of 2004 who were not enumerated in 2005 and 2006 or original respondents of 2004 who were enumerated in 2005 but not in 2006 (attritors)

(4) original respondents of 2004 who were not enumerated in 2005, but were successfully enumerated again in 2006 (returnees)

For sample population (1) the data set normally contains three (or two) records for the respondents, one for each year.[4] Together these individuals represent a balanced panel for which complete information on all three (or two) survey years is available.

For sample population (2) the longitudinal file for enumerated individuals contains one or two records, beginning with the year the person entered the sample population.

Individuals belonging to sample population (3) have also less than three records per person: People not enumerated since 2005 have only one record, those not enumerated 2006 have two records[5].

The longitudinal dataset of the sample population (4) of the returnees can only contain two records per person.

This data structure allows for two analytic perspectives:

 - A longitudinal population of individuals who were in the target population for all three years (2004 to 2006)

 - A longitudinal population of individuals who were in the target population for the last two years (2005 & 2006).

For each perspective different weights are required according to the current version of DOC 65[6].

Common staring point of the longitudinal weights RB062 for the two year panel and RB063 for the 3 year panel is the base weight RB060. From the latter also the cross sectional weight RB050 had been derived. While RB050 is a calibrated version of the shared base weights of sample and non sample household members, the longitudinal variants are not calibrated as reliable marginal distributions for a 3 or 4 year panel target population are currently unavailable.

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[3] This section presents a documentation of the weighting procedure applied to the longitudinal component and complements the detailed description of weighting procedures for the EU-SILC cross sectional component presented in the intermediate quality reports.

[4] Exceptions are successfully traced persons who moved into another split household.

[5] However, for attritors in 2006 it is also possible to have three records per person if the person moved to another household in 2005.

[6] EU-SILC 065/05.1

The procedure described below sets out from the design weights of the household sample in 2004 and their adjustments due to non-response in the initial sample. These weights are then adjusted for each individual by the inverse propensity to stay in the panel, whereby response probabilities were estimated using a logistic regression model. Individuals, who entered the survey either as co-residents or as newborns, have no base weight from a previous year. In line with EUROSTAT's recommendations newborns were assigned their mothers' base weight and other co-residents received a base weight of zero. (cf. EU-SILC Intermediate Quality Report 2006, ch. 2.1.8.8.)

2.1.8.1. Design factor

The longitudinal component of EU-SILC started with the sample of the EU-SILC 2004 survey, where households were selected by unrestricted simple random sampling. Each household had the same inclusion probability and the design weight is given by the total number of households in the sampling frame divided by the number of selected addresses.

2.1.8.2. Non-response adjustment – first wave

The aim of non-response weights is the reduction of the bias caused by unit non-response on household level for the first wave and for attrition among individuals for the second wave. The correction of this bias ideally requires knowledge on the response probability of each of the responding households. Each record in the dataset is then re-weighted by the inverse of this probability.

The estimation strategy applied for the first wave households by Statistics Austria divides the sample into classes and computes the empirical response rate for each of these classes, using design weights. This empirical response rate then serves as an estimate for the response probability of all households of the respective class. This estimation strategy assumes that the response probability is the same for all households of the class.

The classes were defined by cross-tabulating the variables DB040 (region, Nuts II level) and DB100 (degree of urbanisation). The first variable has 9 categories, according to Austria's nine federal provinces (*Bundesländer*), and the second variable has 3 categories, so finally 24 classes were built. A more refined non-response analysis has only been established in more recent waves. Coherence of survey data and registers is not optimal because of changes between sampling and fieldwork but also because living reality and register reality may be different. Therefore non-response adjustment for the first wave of the survey is restricted to basic information on household level.[7]

The design weights adjusted for non-response in the 2004 survey provide the basis for the further adjustments of the longitudinal component.

2.1.8.3. Adjustment to external data – first wave

External adjustments are done to improve the consistency of estimations with reliable external sources. This step is also documented in the respective quality report for 2004.

The reference data source for calibration was the Microcensus, a quarterly household survey with a sample of more than 22,000 randomly selected households. The second quarter of 2004 was chosen in consistency with the main period of the EU-SILC fieldwork. The Microcensus operates with a rotational design like EU-SILC. The Microcensus incorporates the Labour Force Survey, and due to the size of the sample it is also the most important reference for the socio-demographic structure of private households in Austria.

The adjustments were done on the basis of the product of the design weights and the non-response weights. The adjustments were carried out simultaneously on household and on individual level and with reference to the following variables:

Household level:

- household size (four categories: 1, 2, 3 household members and households with 4 and more household members),
- tenure status (two categories: rented flat/house or owned),
- region (nine categories: Nuts II level).

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[7] The population register has only been set up in 2003 as a sampling frame and is subject to revision.

Individual level:

- Sex

- age (younger than 15 yrs., 15 to 19 yrs., 5 yr. age groups between 20 and 74 and 75 and older)

The variables for calibration were chosen in conformity with the EUROSTAT proposal in doc EU-SILC 65/04.

An "integrative" calibration design was applied with the target that on individual level every person of the household should be assigned the same weight. The individual characteristics were aggregated on household level, and dummy variables were constructed for every parameter of the individual adjustment characteristics.

The adjustment process was carried out in an iterative raking procedure meaning that the weights were first adjusted to the first raking dimension (the first variable), then the second, third etc. Then this process was repeated until the totals of the sample and the data source converged. The maximum allowed deviance was 0.5% and the highest correction factor allowed for a base weight was 4.0.

2.1.8.4.   Final longitudinal weights

A final correction of individual non-response within a household was not necessary because the small number of missing cases were imputed completely. In the first wave, the longitudinal base weights (RB60) are identical to the design weights after non-response adjustment and calibration.

2.1.8.5.   Non-response adjustments – subsequent waves

For the second wave and third wave households, their base weights correspond to the design weights in 2004 adjusted for non-response and calibrated for external marginal distributions. Given that longitudinal households are difficult to define, weighting for attrition is based on individual attrition propensities.

For the non-response adjustment for respondents followed up in the second and third wave, more information is available from the household and personal interviews of the first wave. Therefore the response probability of each household was estimated on the basis of a logistic regression model. In the first step a set of significant variables between participation and non-participation in the second wave was selected. Panel attrition was obviously non-random. Significance was tested with t-test and Chi-Square. Variables with a correlation with income (main variable of interest) were selected into the model. The non-response model is identical to the non-response model of the cross sectional component and has been described in detail in the relevant intermediate quality reports[8].

Design weights and non-response weights are multiplied to obtain the personal base weight (RB060) for the subsequent wave. This product is not defined for individuals who were newly born between 2004 and 2006. They receive their mother's weight or, alternatively the average weight of sample persons in the household. In principle new entrants from outside the target population should be treated analogously. In absence of the required information of their former population status all other co-residents are assigned zero base weights.

2.1.8.6.   Further adjustments to external data

Since calibrated base weights were used and no reliable marginal distributions are available for the longitudinal population, no further adjustments were applied to longitudinal weights apart from the scaling described in the previous section. For the longitudinal component 2004-2007 better external data from wage tax statistics, will be available. A more detailed calibration to external data will be tested for the longitudinal datasets of future operations.

For a documentation of adjustments applied to the cross sectional data see EU-SILC 2006 Intermediate Quality Report (ch 2.1.8.8.)

2.1.8.7.   Final longitudinal weight

The base weights described in section 2.1.8.5 above were used to produce longitudinal weights for the two year panel (rb062) and for the three year panel (rb063).

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[8] Compare: Intermediate quality report 2005 ch. 2.1.8 & intermediate quality report 2006 ch. 2.1.8

Individuals entering the population after the start of a panel study can not be represented. This part of the target population is called "IN-Population".

The panel which started in 2004, i.e. rotations 3 and 4 form a 3 year panel. The appropriate weight is RB063 which is defined for all individuals present throughout this period excluding newborns and co-residents. RB063 is identical to RB060 apart from a scaling factor

Of course the 3 year panel incorporates also a 2 year panel. When this 2 year panel is combined with the 2-year panel which was launched in the year 2005, a small part of the population is only represented in this latter part. This can be referred to as "IN-Population" and consists mostly of migrants of the year 2005. Their weights need to be inflated accordingly to give an unbiased representation of the population in scope during the years 2005-2006. In accordance to the EUROSTAT document 065/05.1 (page 41) an inflation factor of 3 should be chosen for the longitudinal weights rb062 of the IN-Population, since these persons couldn't be represented in the two of the rotations (R3 & R4) of the two year panel which consists of three rotations (R1, R3 & R4).[9]

Scaling

For inference on the longitudinal populations, namely individuals who have been part of the target population in 2005 & 2006 (two year panel) and individuals who were in the target population during the year 2004 to 2006 (three year panel), the corresponding weights rb062 and rb063 had to be rescaled. The data for this calculation was provided by the Austrian population register (POPREG). It was used to identify the number of persons who were present in the population during the years 2005 to 2006 and 2004 to 2006 respectively.

2.1.8.8.   Final cross sectional weight

Final cross sectional weights were obtained by a calibration of the joint cross sectional and longitudinal sample, following the procedure already employed on the cross sectional sample of 2004.

The data source for these adjustments is the Microcensus, a quarterly household survey with a sample of more than 22,000 randomly selected households. The period of the EU-SILC fieldwork was extended in 2005, from March to end of November. As a reference data base the average of the four quarters of the Microcensus 2005 was chosen. The adjustments were carried out on household level and on individual level and were done with reference to the following variables:

Household level: the household size (four categories: 1, 2, 3 household members and households with 4 and more household members), tenure status (two categories: rented flat/house or owned), and region (nine categories: Nuts II level).

Individual level: Sex and age (younger than 15 yrs., 15 to 19 years, 5 year age groups between 20 and 74 and 75 and older)

The variables for calibration were the same as in EU-SILC 2004. An "integrative" calibration design was applied with the target that on individual level every person of the household should be assigned the same weight. The individual characteristics were aggregated on household level, and dummy variables were constructed for every parameter of the individual adjustment characteristics.

The adjustment process was carried out in an iterative raking procedure meaning that the weights were first adjusted to the first raking dimension (the first variable), then the second, third etc. Then this process was repeated until the totals of the sample and the data source converged.

Convergence was given if the deviance between given totals and the weighted estimators were at most 0.5%. To avoid a large dispersion within the weights the interval of allowed correction factors was set to (0.5;4.0). Additionally the intervals for the absolute values of the weights were restricted to (180;2,200). If a value higher then 2,200 occurred it was set to 2,200 minus ϵ with ϵ uniformly distributed in the interval (0;10) and in accordance if a value was too low it was set to 180 plus ϵ with ϵ uniformly distributed in the interval (0;3)

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[9] Currently the population status of individuals can only be determined with a certain propensity for all household members. Register data from the original sample is used to determine whether a household contains individuals who entered the population after the previous sample had been drawn, i.e. who were not in the sampling frame in t-1. Since no unique matching on the individual level is possible, the weights of all members living in such households are be inflated by the same factor, proportional to the share of new entrants in the household.

Children weights were simply adjusted to the population of 1-year age bands also originating from the Microcensus. The personal intergenerational cross-sectional weight from the module 2005 for persons at the age of 25-65, was adjusted in the same way.

The following table gives an overview of the distribution of weights and applied maximal factors on each step of the weighting procedure.

Despite of the trimming procedures applied, the calibration had a strong impact on the variance of the weights. The final cross-sectional weight shows a factor of 12 between lowest and highest weight, which is presumably an effect of high panel attrition between wave 1 and wave 2 as well as the low response rate for wave 1 in 2005.

For a documentation of adjustments applied to the cross sectional data see EU-SILC 2006 Intermediate Quality Report (ch 2.1.8.8.).

2.1.9. Substitutions

Substitutions were necessary only in the initial cross sectional sample of the year 2005 and are described in detail in the relevant Intermediate Quality Report for the EU-SILC 2005 operation.

2.2. *Sampling errors*

The subsequent tables present means, number of observations and standard errors for each wave of the longitudinal component and the cross sectional component in the years 2006.

Table 5: Mean, total number of observations (before and after imputation) and standard error for income components 2004 (households & persons, weighted R3 & R4)

	Mean	Number of observations		Standard error
		Before imputation	After imputation	
Total household gross income	41,181	1,159	3,435	556
Total disposable household income	30,036	1,758	3,438	353
Total disposable household income before social transfers other than old-age and survivors' benefits	27,588	1,759	3,379	350
Total disposable household income including old-age and survivors' benefits	23,869	1,478	2,923	399
Net income components at household level				
Income from rental of a property or land	5,738	145	192	530
Family/child related allowances	4,938	1,155	1,307	115
Social exclusion not elsewhere classified	974	76	83	217
Housing allowances	1,430	121	127	89
Regular inter-household cash transfer received	3,972	208	246	235
Interest repayments on mortgage	572	257	885	59
Income received by people aged under 16	3,143	28	36	329
Regular inter-household cash transfer paid	3,821	214	238	257
Repayments/receipts for tax adjustment	-190	1,163	1,179	46
Gross income components at household level				
Income from rental of a property or land	8,963	72	192	923
Family/child related allowances	4,938	1,155	1,307	115
Social exclusion not elsewhere classified	974	76	83	217
Housing allowances	1,430	121	127	89
Regular inter-household cash transfer received	3,972	208	246	235
Interest repayments on mortgage	711	202	885	73
Income received by people aged under 16	3,555	16	36	397
Regular inter-household cash transfer paid	3,821	214	238	257
Tax on Income and Social Contributions	11,130	1,131	3,355	225
Net income components at personal level				
Employee cash or near cash income	16,356	2,685	3,690	189
Contributions to individual private pension plans	1,009	0	1,410	30
Cash benefits or losses from self-employment	15,204	398	665	958
Value of goods produced by own-consumption	963	99	123	145
Pension from individual private plans	5,480	44	63	894
Unemployment benefits	3,926	387	455	150
Old-age benefits	15,174	1,365	1,656	247
Survivor's benefits	7,529	62	77	525
Sickness benefits	2,824	80	124	414
Disability benefits	11,476	182	215	471
Education-related allowances	924	5	6	107
Gross income components at personal level				
Employee cash or near cash income	23,389	2,329	3,690	313
Contributions to individual private pension plans	1,009	0	1,410	30
Cash benefits or losses from self-employment	24,796	187	665	1,640
Value of goods produced by own-consumption	963	99	123	145
Pension from individual private plans	5,644	20	63	920
Unemployment benefits	3,965	380	455	158
Old-age benefits	18,589	739	1,656	349
Survivor's benefits	8,985	26	77	658
Sickness benefits	3,383	31	124	444
Disability benefits	13,714	121	215	662
Education-related allowances	924	5	6	107

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Weighted by db090 at household level and pb050 at personal level

Table 6: Mean, total number of observations (before and after imputation) and standard error for income components 2005 (households & persons, weighted R3 & R4)

	Mean	Number of observations		Standard error
		Before imputation	After imputation	
Total household gross income	43,677	862	2,366	725
Total disposable household income	32,446	1,379	2,366	484
Total disposable household income before social transfers other than old-age and survivors' benefits	29,648	1,394	2,346	481
Total disposable household income including old-age and survivors' benefits	22,539	1,365	2,241	516
Net income components at household level				
Income from rental of a property or land	8,365	74	102	1,647
Family/child related allowances	4,793	930	937	113
Social exclusion not elsewhere classified	2,327	46	50	316
Housing allowances	1,554	79	85	109
Regular inter-household cash transfer received	4,542	164	173	395
Interest repayments on mortgage	379	1,256	1,874	45
Income received by people aged under 16	3,005	14	16	745
Regular inter-household cash transfer paid	3,877	178	188	252
Repayments/receipts for tax adjustment	-250	995	1,039	60
Gross income components at household level				
Income from rental of a property or land	11,782	46	102	2,308
Family/child related allowances	4,793	930	937	113
Social exclusion not elsewhere classified	2,327	46	50	316
Housing allowances	1,554	79	85	109
Regular inter-household cash transfer received	4,542	164	173	395
Interest repayments on mortgage	474	1,256	1,874	57
Income received by people aged under 16	3,484	11	16	752
Regular inter-household cash transfer paid	3,877	178	188	252
Tax on Income and Social Contributions	11,089	845	2,335	265
Net income components at personal level				
Employee cash or near cash income	17,041	2,275	2,579	246
Contributions to individual private pension plans	1,033	1,009	1,112	41
Cash benefits or losses from self-employment	16,804	319	490	1,111
Value of goods produced by own-consumption	1,519	94	95	333
Pension from individual private plans	5,768	11	13	3,043
Unemployment benefits	4,660	262	299	265
Old-age benefits	16,427	1,033	1,173	362
Survivor's benefits	8,437	39	43	667
Sickness benefits	2,417	60	75	312
Disability benefits	13,390	140	146	608
Education-related allowances	2,337	81	89	354
Gross income components at personal level				
Employee cash or near cash income	24,230	1,642	2,579	410
Contributions to individual private pension plans	1,033	1,009	1,112	41
Cash benefits or losses from self-employment	23,278	207	490	1,516
Value of goods produced by own-consumption	1,519	94	95	333
Pension from individual private plans	6,930	8	13	3,757
Unemployment benefits	4,775	252	299	282
Old-age benefits	20,750	516	1,173	560
Survivor's benefits	10,291	15	43	927
Sickness benefits	2,862	19	75	390
Disability benefits	16,254	81	146	859
Education-related allowances	2,337	81	89	354

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Weighted by db090 at household level and pb050 at personal level

Table 7: Mean, total number of observations (before and after imputation) and standard error for income components 2006 (households & persons, weighted) R3 & R4)

	Mean	Number of observations		Standard error
		Before imputation	After imputation	
Total household gross income	41,244	744	2,263	642
Total disposable household income	31,225	1,405	2,263	451
Total disposable household income before social transfers other than old-age and survivors' benefits	28,529	1,408	2,242	446
Total disposable household income including old-age and survivors' benefits	21,983	1,354	2,108	489
Net income components at household level				
Income from rental of a property or land	11,352	76	88	2,577
Family/child related allowances	4,576	856	860	110
Social exclusion not elsewhere classified	1,983	33	36	414
Housing allowances	1,497	68	73	127
Regular inter-household cash transfer received	4,334	149	152	372
Interest repayments on mortgage	387	1,164	1,736	40
Income received by people aged under 16	1,666	16	23	330
Regular inter-household cash transfer paid	3,643	136	144	246
Repayments/receipts for tax adjustment	-205	973	1,006	58
Gross income components at household level				
Income from rental of a property or land	10,735	40	87	2,689
Family/child related allowances	4,576	856	860	110
Social exclusion not elsewhere classified	1,983	33	36	414
Housing allowances	1,497	68	73	127
Regular inter-household cash transfer received	4,334	149	152	372
Interest repayments on mortgage	484	1,164	1,736	50
Income received by people aged under 16	1,674	10	23	330
Regular inter-household cash transfer paid	3,643	136	144	246
Tax on Income and Social Contributions	9,971	761	2,232	248
Net income components at personal level				
Employee cash or near cash income	17,204	2,181	2,413	257
Contributions to individual private pension plans	1,114	1,024	1,109	60
Cash benefits or losses from self-employment	14,664	353	425	1,246
Value of goods produced by own-consumption	223	76	90	31
Pension from individual private plans	3,416	11	12	864
Unemployment benefits	4,195	241	257	264
Old-age benefits	16,216	1,043	1,159	324
Survivor's benefits	8,818	37	39	693
Sickness benefits	2,590	51	66	476
Disability benefits	13,123	141	145	525
Education-related allowances	3,126	64	71	889
Gross income components at personal level				
Employee cash or near cash income	24,426	1,453	2,413	425
Contributions to individual private pension plans	1,114	1,024	1,109	60
Cash benefits or losses from self-employment	18,459	198	425	1,341
Value of goods produced by own-consumption	223	76	90	31
Pension from individual private plans	3,419	6	12	864
Unemployment benefits	4,338	239	257	292
Old-age benefits	20,009	458	1,159	476
Survivor's benefits	10,782	13	39	958
Sickness benefits	3,248	20	66	581
Disability benefits	15,560	80	145	702
Education-related allowances	3,126	64	71	889

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Weighted by db090 at household level and pb050 at personal level

Table 8: Mean, total number of observations (before and after imputation) and standard error for income components of the cross-sectional component 2006 (households & persons, weighted)

	Mean	Number of observations		Standard error
		Before imputation	After imputation	
Total household gross income	41,716	2,045	6,028	413
Total disposable household income	31,534	3,688	6,028	289
Total disposable household income before social transfers other than old-age and survivors' benefits	28,777	3,670	5,951	284
Total disposable household income including old-age and survivors' benefits	22,667	3,515	5,589	315
Net income components at household level				
Income from rental of a property or land	9,615	193	226	1,182
Family/child related allowances	4,703	2,110	2,120	75
Social exclusion not elsewhere classified	3,075	113	120	588
Housing allowances	1,470	195	204	71
Regular inter-household cash transfer received	4,704	398	410	287
Interest repayments on mortgage	338	3,075	4,588	21
Income received by people aged under 16	1,661	40	53	192
Regular inter-household cash transfer paid	3,748	372	392	162
Repayments/receipts for tax adjustment	-239	2,437	2,499	31
Gross income components at household level				
Income from rental of a property or land	9,240	111	225	1,288
Family/child related allowances	4,703	2,110	2,120	75
Social exclusion not elsewhere classified	3,075	113	120	588
Housing allowances	1,470	195	204	71
Regular inter-household cash transfer received	4,704	398	410	287
Interest repayments on mortgage	422	3,075	4,588	26
Income received by people aged under 16	1,784	31	53	216
Regular inter-household cash transfer paid	3,748	372	392	162
Tax on Income and Social Contributions	10,174	2,061	5,923	161
Net income components at personal level				
Employee cash or near cash income	17,212	5,497	6,254	159
Contributions to individual private pension plans	1,090	2,537	2,732	28
Cash benefits or losses from self-employment	14,476	908	1,098	560
Value of goods produced by own-consumption	239	222	259	19
Pension from individual private plans	3,663	26	29	988
Unemployment benefits	4,512	667	724	161
Old-age benefits	15,385	2,715	3,045	173
Survivor's benefits	8,481	99	105	509
Sickness benefits	2,771	143	181	341
Disability benefits	12,547	352	366	404
Education-related allowances	3,078	154	178	343
Gross income components at personal level				
Employee cash or near cash income	24,478	3,768	6,254	266
Contributions to individual private pension plans	1,090	2,537	2,732	28
Cash benefits or losses from self-employment	18,707	524	1,098	712
Value of goods produced by own-consumption	239	222	259	19
Pension from individual private plans	3,936	12	29	1,233
Unemployment benefits	4,588	659	724	169
Old-age benefits	18,816	1,289	3,045	249
Survivor's benefits	10,467	41	105	683
Sickness benefits	3,392	63	181	396
Disability benefits	14,773	213	366	565
Education-related allowances	3,078	154	178	343

Source: EU-SILC cross-sectional sample 2006

Weighted by db090 at household level and pb040 at personal level

Table 9: The mean, the number of observations (before and after imputations) and the standard error for the equivalised disposable income 2004 (weighted, R3 & R4)

Equivalised disposable income	Mean	Number of observations		Standard error	S.E. / Mean
		Before imputation	After imputation		%
By household size					
1 household member	18,027	558	897	508	2.8
2 household members	20,022	1,194	2,216	380	1.9
3 household members	19,843	771	1,821	411	2.1
4 and more household members	17,474	1,554	3,792	282	1.6
By age groups					
< 25	16,961	1,162	2,673	228	1.3
25 - 34	18,763	507	1,109	435	2.3
35 - 44	18,928	620	1,375	376	2.0
45 - 54	20,861	525	1,233	428	2.1
55 - 64	20,808	578	1,098	442	2.1
65 +	17,934	685	1,238	364	2.0
By sex					
Male	19,110	1,939	4,199	213	1.1
Female	18,278	2,138	4,527	204	1.1
Total	18,680	4,077	8,726	187	1.0

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 10: The mean, the number of observations (before and after imputations) and the standard error for the equivalised disposable income 2005 (weighted R3 & R4)

Equivalised disposable income	Mean	Number of observations		Standard error	S.E. / Mean
		Before imputation	After imputation		%
By household size					
1 household member	19,174	420	610	511	2.7
2 household members	21,535	844	1,392	532	2.5
3 household members	21,687	634	1,280	566	2.6
4 and more household members	18,550	1,355	2,727	466	2.5
By age groups					
< 25	18,235	1,000	1,888	346	1.9
25 - 34	20,290	374	675	497	2.4
35 - 44	19,818	537	977	501	2.5
45 - 54	21,253	435	848	520	2.4
55 - 64	22,322	415	774	575	2.6
65 +	20,546	492	847	623	3.0
By sex					
Male	20,331	1,565	2,915	301	1.5
Female	19,756	1,688	3,094	285	1.4
Total	20,032	3,253	6,009	275	1.4

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 11: The mean, the number of observations (before and after imputations) and the standard error for the equivalised disposable income 2006 (weighted R3 & R4)

Equivalised disposable income	Mean	Number of observations		Standard error	S.E. / Mean %
		Before imputation	After imputation		
By household size					
1 household member	18,226	429	600	427	2.3
2 household members	21,841	878	1,382	497	2.3
3 household members	21,058	669	1,173	578	2.7
4 and more household members	18,451	1,324	2,494	388	2.1
By age groups					
< 25	18,180	1,017	1,758	295	1.6
25 - 34	19,915	350	603	544	2.7
35 - 44	20,095	497	881	534	2.7
45 - 54	20,743	473	798	492	2.4
55 - 64	22,871	424	741	563	2.5
65 +	19,245	539	868	441	2.3
By sex					
Male	20,399	1,565	2,708	297	1.5
Female	19,251	1,735	2,941	243	1.3
Total	19,803	3,300	5,649	241	1.2

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 12: The mean, the number of observations (before and after imputations) and the standard error for the equivalised disposable income for the cross-sectional component 2006 (weighted)

Equivalised disposable income	Mean	Number of observations		Standard error	S.E. / Mean %
		Before imputation	After imputation		
By household size					
1 household member	17,947	1,217	1,755	260	1.4
2 household members	21,555	2,246	3,646	297	1.4
3 household members	21,239	1,794	3,159	392	1.8
4 and more household members	18,349	3,365	6,323	239	1.3
By age groups					
< 25	18,028	2,590	4,513	197	1.1
25 - 34	19,526	1,021	1,677	304	1.6
35 - 44	20,439	1,350	2,382	339	1.7
45 - 54	21,164	1,187	2,121	288	1.4
55 - 64	22,400	1,080	1,859	361	1.6
65 +	18,655	1,394	2,331	247	1.3
By sex					
Male	20,030	4,142	7,178	169	0.8
Female	19,334	4,480	7,705	160	0.8
Total	19,674	8,622	14,883	151	0.8

Source: EU-SILC cross-sectional sample 2006

2.3.   Non-sampling errors

2.3.1.   Sampling frame and coverage errors

The sampling frame for the first wave of the longitudinal component (2004) was the ZMR. The ZMR is a continuously updated population register based on the registration of residence. The register is administered by the federal ministry of the Interior BMI (*Bundesministerium für Inneres*). Data from the ZMR are delivered quarterly to Statistics Austria. For the sampling procedure of EU-SILC 2004 the reference date of the ZMR was December 31st 2003. Addresses already selected for the EU-SILC 2003 survey were excluded from the sample frame.

The ZMR can be expected to provide the most up-to-date representation of the resident population of Austria. Nonetheless the sample contained obsolete units at the time of the fieldwork, mainly due to changes that occurred after the sample had been drawn. These changes are for example persons who emigrated or died or persons who did not report changes of their main residence in time. Other units, such as newly built accommodation could not be included in the sampling frame.

The sampling frame constructed from the ZMR data in quarterly intervals by aggregation of individuals to dwelling units. The entries of the ZMR comprise information on individuals and there is no key or link to identify all persons that are living in the same dwelling. So the connection of dwelling units has to be constructed by the individual address characteristics. The households constructed in this way are not always correct, mainly because of spelling errors or differences of the spelling of the addresses. However, the ZMR is regarded as the most reliable source for drawing representative samples and is also used in other surveys in Austria like the Microcensus (Labour Force Survey).

2.3.2.   Measurement and processing errors

2.3.2.1.   Measurement errors

Measurement errors are defined as the difference between the value of a variable (provided by the respondent) and the true but unknown value of a variable. These errors originate from four basic sources:

- the questionnaire (effects of the design, content and wording)

- the data collection method (effects of the modes of interviewing)

- the interviewer (effects of the interviewer on the response to a question including errors of the interviewer)

- the respondents (effects of the respondent on the interpretation of items)

The occurrence of these errors and their effects is almost unavoidable. However, Statistics Austria implemented various methods and procedures to reduce such effects and errors.

The original questionnaires were developed on the basis of the EU-SILC regulations and the EU-SILC doc 65 (*Description of Target Variables: Cross-sectional and Longitudinal*). They are annually adopted and revised according to changes of EUROSTATs requirements; feedback from interviewers or data checking procedures which indicated misinterpretations of particular items.

After the original contract with the fieldwork institute responsible for the survey in 2004 expired, a call for public tender had to be opened. The successful bid came from a different institute than in 2004. Hence, the data from the follow-up surveys in 2005 and 2006 was largely collected from a different pool of interviewers.

During the years 2004 to 2006 the data collection was conducted using the CAPI technique (Computer Assisted Personal Interviewing). Due to the change of the fieldwork institute in 2005 the CAPI programming had to be done anew by the new fieldwork institute using a different CAPI programme. However, informed by the experience from prior surveys it was possible to expand the range of checks between 2004 and 2005 on the surface of the input devices (laptop or handheld computer), so that errors, inconsistencies and incompatibilities within a household or within an interview could be clarified and fixed already during the interview.

To reduce interviewer effects it was necessary to provide the interviewers with sufficient training and support measures. These trainings and measures helped to ensure that all respondents were interviewed under similar conditions as far as the interviewer behaviour is concerned. The responsible

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fieldwork institutes in both years conducted the interviewer training in cooperation with the EU-SILC project team of Statistics Austria. In 2004 142 interviewers were trained, in 2005 90 interviewers and in 2006 121 interviewers[10] attended the training sessions.

Despite the efforts to keep the rate of proxy interviews low, this rate increased between 2004 and 2005 from 13.2% to 24.0%. The presented table refers only to those persons interviewed in all three waves. Since proxy interviews are a possible source of bias, Statistics Austria and the fieldwork institute aimed at keeping the rate of proxy interviews low. Having learned from the experiences from the survey of 2005[11], the fieldwork institute managed to reduce the ratio of proxy interviews from 24% in 2005 to 18.8% in the rotational groups three and four in 2006.[12] As in the last years, the ratio of proxy interviews varies considerably with the basic activity status of the respondent for whom a proxy interview had to be conducted. Retired and unemployed persons are more likely to give a personal interview (and/or are more accessible for interviews), than people in employment or self-employment.

Table 13: Distribution of proxy interviews by activity status and year (persons interviewed in all three waves of R3 & R4)

	Personal Interview		Proxy Interview		Total	
2004						
	N	%	N	%	N	%
Working	1,739	83.7	339	16.3	2,078	100.0
Unemployed	102	86.4	16	13.6	118	100.0
Retired	991	93.4	70	6.6	1,061	100.0
Other	633	86.4	100	13.6	733	100.0
TOTAL	3,465	86.8	525	13.2	3,990	100.0
2005						
	N	%	N	%	N	%
Working	1,492	71.3	600	28.7	2,092	100.0
Unemployed	83	89.2	10	10.8	93	100.0
Retired	936	83.9	179	16.1	1,115	100.0
Other	519	75.3	170	24.7	689	100.0
TOTAL	3,030	76.0	959	24.0	3,989	100.0
2006						
	N	%	N	%	N	%
Working	1,620	78.0	458	22.0	2,078	100.0
Unemployed	82	87.2	12	12.8	94	100.0
Retired	1,032	88.1	139	11.9	1,171	100.0
Other	512	78.3	142	21.7	654	100.0
TOTAL	3,246	81.2	751	18.8	3,997	100.0

Source: EU-SILC longitudinal sample 2004, 2005, 2006
Activity status = recoded variable pl030

2.3.2.2.   Processing errors

As already during the fieldwork, checking of data quality is an important part of the post-data-collection editing process. Basic principles of this process are standardisation and transparency. Hence, all relevant tasks are included in a predefined process and data editing rules are generalized for subgroups to avoid single case solutions. Transparency of data changes is ensured by documentation such as programme code, copies of data files at various stages, flag variables for the collected variables and written documentations and descriptions.

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[10] 2 interviewers in 2005 and 15 interviewers in 2006 did not provide any successful interviews.

[11] The negative or problematic aspects of proxy interviews were also communicated in the interview trainings.

[12] In the whole sample of EU-SILC 2006 the rate of proxy interviews was 19,6%.

Flags for collected Austrian income variables:

-2	not applicable
-1	no answer and not (yet) imputed
1	value according to survey
2	value from category imputation
3	value from net-gross or gross-net conversion
4	value logically deduced
5	value statistically imputed with longitudinal method
6	value statistically imputed with cross-sectional method
7	value from survey was corrected
8	value computed from a monthly income (this code applies only to variables of yearly income)

The data editing process consists of several checking procedures and the respective solutions:

Assessment of unit and item non-response on household level: Households with too much lacking information are not included in the final database

Formal data checks (e.g. checking of completeness of data copies, correctness of routings, ranges of entered values): If required new data copies are made. Formal errors in the dataset are either corrected according to the formal requirements or in case of missing data labelled to be imputed later.

Cross-sectional and longitudinal plausibility checks: Detected implausible values are either recoded, imputed or – for income variables – corrected through net-gross or gross-net conversion

Imputation and weighting complete the data editing process.

With the final datasets on the macro-level the distribution of income variables and indicators are checked with various data sources (previous EU-SILC waves, ECHP, microcensus, LFS, HBS, tax statistics and national accounts) to identify implausible distributions due to errors in the data editing process.

Before transmitting the longitudinal datasets to Eurostat the Eurostat SAS checking programme were run to detect errors in the computation and coding of target variables. These require mostly formal corrections as at this point all checking and editing regarding content has already been implemented earlier in the editing process. Cases which are identified by the checking programme as probably implausible but are considered correct were commented and sent to Eurostat with the first data transmission.

2.3.3. Non-response errors

2.3.3.1. Achieved sample size

Table 14: Sample size and accepted interviews (R3 & R4)

	Total	R3	R4
2004			
Accepted household interviews	3,439	1,163	2,276
Personal Interview accepted			
Number of persons 16 years and older	7,009	2,335	4,674
Sample Persons	7,009	2,335	4,674
Co-residents	0	0	0
2005			
Accepted household interviews	2,366	825	1,541
Personal Interview accepted			
Number of persons 16 years and older	4,865	1,656	3,209
Sample Persons	4,763	1,628	3,135
Co-residents	102	28	74
2006			
Accepted household interviews	2,263	784	1,479
Personal Interview accepted			
Number of persons 16 years and older	4,584	1,553	3,031
Sample Persons	4,008	1,379	2,629
Co-residents	576	174	402

Source: EU-SILC longitudinal sample 2004, 2005, 2006

2.3.3.2. Unit non-response

Table 15: Indicators on unit non-response (R3 & R4)

	Total	R3	R4
2004			
Address successfully contacted	5,544	1,859	3,685
Valid addresses selected	5,615	1,883	3,732
Ra - address contact rate %	98.7%	98.7%	98.7%
Number of household interviews completed	3,439	1,163	2,276
Number of households at contacted address	5,544	1,859	3,685
Rh - proportion of completed interviews %	62.0%	62.6%	61.8%
NRh - HH non-response rate %	38.0%	37.4%	38.2%
Personal interviews completed	6,963	2,323	4,640
number of eligible individuals	7,009	2,335	4,674
Rp - individual response rate %	99.3%	99.5%	99.3%
NRp - individual non-response rate %	0.7%	0.5%	0.7%
Overall individual non-response rate *NRp %	39.2%	38.6%	39.5%

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 16: Household response rate: Comparison of result codes between wave 2 and wave 1 (R3 & R4)

| | | DB130 = 11 | | | | | | | | | | | Total |
		DB135 = 1	DB135 = 2	DB120 = 22	DB130 = 22	DB130 = 23	DB130 = 24	DB130 = 21	DB120=21	NC	DB110 = 10	DB120 = 23	
Sample outcome in wave 1 - 2004													
	DB130 = 11 DB135 = 1	2316	0	0	328	57	7	646	0	85	0	0	3439
	DB135 = 2	0	0	0	0	0	0	0	0	0	0	0	0
	DB120 = 21												0
	DB120 = 22												0
2004	DB120 = 23												0
	DB130 = 21												0
	DB130 = 22												0
	DB130 = 23												0
	DB130 = 24												0
	Total	2316	0	0	328	57	7	646	0	85	0	0	3439
New Households in wave 2 - 2005													0
2005	DB110 = 8	50	0	0	25	0	0	17	11	0	0	0	103
	DB110 = 9	0	0	0	0	0	0	0	0	0	0	0	0
Total		2366	0	0	353	57	7	663	11	85	0	0	3542

Wave response rate: 0.668

Longitudinal follow-up rate = 0.787

Follow-up ratio = 0.809

Achieved sample size ratio = 0.688

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Table 17: Household response rate: Comparison of result codes between wave 3 and wave 2 (R3 & R4)

		DB130 = 11											Total
		DB135 = 1	DB135 = 2	DB120 = 22	DB130 = 22	DB130 = 23	DB130 = 24	DB130 = 21	DB120=21	NC	DB110 = 10	DB120 = 23	
Sample outcome in wave 2 - 2005													
	DB130 = 11 DB135 = 1	2068	0	0	72	17	0	178	0	30	1	0	2366
	DB135 = 2	0	0	0	0	0	0	0	0	0	0	0	0
	DB120 = 22	0	0	0	0	0	0	0	0	0	0	0	0
2005	DB130 = 22	147	0	0	63	3	0	106	0	34	0	0	353
	DB130 = 23	20	0	0	3	9	0	15	0	10	0	0	57
	DB130 = 24	2	0	0	1	0	0	3	0	1	0	0	7
	Total	2237	0	0	139	29	0	302	0	75	1	0	2783
New Households in wave 3 - 2006													
2006	DB110 = 8	26	0	0	17	1	1	18	5	0	0	0	68
	DB110 = 9	0	0	0	0	0	0	0	0	0	0	0	0
Total		2263	0	0	156	30	1	320	5	75	1	0	2851

Wave response rate: 0.794

Longitudinal follow-up rate = 0.836

Follow-up ratio = 0.852

Achieved sample size ratio = 0.956

Table 18: Personal Interview outcome in wave 2 (R3 & R4)

			2005											
			Not completed because of											
		RB250 = 11,12,13	RB250=14 *	RB250 = 21	RB250 = 22	RB250 = 23	RB250 = 31	RB250 = 32	RB250 = 33	HHnc HHnc1	HHnc2	Pn	PI	TOTAL
Row	*Sample persons forwarded from last wave*													
1	RB110 = 1-2	4653	32	0	0	0	0	0	0					4685
2	RB110 = 6													43
3	RB110 = -1													0
4	RB120 = 2													6
5	RB120 = 3													14
6	RB120 = 4													18
7	DB135 = 2 or -1, or DB110 = 7, or DB120 = 21-23 or -1, or DB130 == 21-24 or -1													0
8	DB110 = 3-6													0
	New Sample Persons													0
9	Reached age 16	77	1	0	0	0	0	0	0	0	0	0	0	78
10	Sample additions	0	0	0	0	0	0	0	0	0	0	0	0	0
	Non-Sample persons 16+													
	From wave 1 - 2004	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Not from wave 1 - 2004	101	1	0	0	0	0	0	0	0	0	0	0	102
	Sample persons not forwarded from last wave (excluded died or not eligible according to tracing rules)													
13	From 2004													2263
	Sum of Rows													0
	1+3+6+7+9+10	4730	33	0	0	0	0	0	0	0	0	0	0	4781
	1+3+6+7+9+10+13	4730	33	0	0	0	0	0	0	0	0	0	0	7044
	1+3+6+7+9+10+11	4831	34	0	0	0	0	0	0	0	0	0	0	4883

Source: EU-SILC longitudinal sample 2004, 2005, 2006

* Interviews not completed, though contact was made, data completed by imputation

wave response rate of sample persons	0.989	achieved sample size ratio for sample persons	0.675
wave response rate of co-residents	0.000	achieved sample size ratio for sample persons and coresidents	0.689
longitudinal follow-up rate	0.671	achieved sample size ratio for co-residents in first wave	0.000
R(RB250=14)	0.005	response rate for non-sample persons	0.990

Table 19: Personal Interview outcome in wave 3 (R3 & R4)

		2006												
			Not completed because of											
		RB250 = 11,12,13	RB250=14 *	RB250 = 21	RB250 = 22	RB250 = 23	RB250 = 31	RB250 = 32	RB250 = 33	HHnc HHnc1	HHnc2	Pn	PI	TOTAL
Row	Sample persons forwarded from last wave													
1	RB110 = 1-2	4063	11											4074
2	RB110 = 6													27
3	RB110 = -1													0
4	RB120 = 2													7
5	RB120 = 3													15
6	RB120 = 4													4
7	DB135 = 2 or -1, or DB110 = 7, or DB120 = 21-23 or -1, or DB130 == 21-24 or -1													0
8	DB110 = 3-6													0
	New Sample Persons													
9	Reached age 16	72	0	0	0	0	0	0	0	0	0	0	0	72
10	Sample additions													
	Non-Sample persons 16+													
	From wave 1 - 2004	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Not from wave 1 - 2004	149	2	0	0	0	0	0	0	0	0	0	0	151
	Sample persons not forwarded from last wave (excluded died or not eligible according to tracing rules)													
13	From 2005													641
	Sum of Rows													
1+3+6+7+9+10		4135	11	0	0	0	0	0	0	0	0	0	0	4150
1+3+6+7+9+10+13		4135	11	0	0	0	0	0	0	0	0	0	0	4791
1+3+6+7+9+10+11		4284	13	0	0	0	0	0	0	0	0	0	0	4301

Source: EU-SILC longitudinal sample 2004, 2005, 2006

* Interviews not completed, though contact was made, data completed by imputation

wave response rate of sample persons	0.996	achieved sample size ratio for sample persons	0.874
wave response rate of co-residents	0.000	achieved sample size ratio for sample persons and coresidents	0.887
longitudinal follow-up rate	0.863	achieved sample size ratio for co-residents in first wave	0.000
R(RB250=14)	0.002	response rate for non-sample persons	0.987

2.3.3.3.   Distribution of households by household status (DB110), by record of contact at the address (DB120), by household questionnaire result (DB130) and by household interview acceptance (DB135)

Table 20: Distribution of households by household status (R3 & R4)

	Total	1	2	3	4	5	6	7	8	9	10
						db110 =					
2004											
Total	5,712	0	0	0	0	0	0	0	0	5,712	0
%	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
2005											
Total	3,542	3,231	123	3	7	6	4	65	103	0	0
%	100.0	91.2	3.5	0.1	0.2	0.2	0.1	1.8	2.9	0.0	0.0
2006											
Total	2,851	2,572	135	5	2	19	15	34	68	0	1
%	100.0	90.2	4.7	0.2	0.1	0.7	0.5	1.2	2.4	0.0	0.0

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 21: Distribution of households by contact at address (R3 & R4)

	Total	11	21	22	23	24	Missing
				db120 =			
2004							
Total	5,712	5,544	54	2	97	15	0
%	100.0	97.1	0.9	0.0	1.7	0.3	0.0
2005							
Total	3,542	215	11	0	0	0	3,316
%	100.0	6.1	0.3	0.0	0.0	0.0	93.6
2006							
Total	2,851	198	5	0	0	0	2,648
%	100.0	6.9	0.2	0.0	0.0	0.0	92.9

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 22: Distribution of households by household questionnaire result (R3 & R4)

	Total	11	21	22	23	24	Missing
				db130 =			
2004							
Total	5,712	3,505	1,300	537	29	173	168
%	100.0	61.4	22.8	9.4	0.5	3.0	2.9
2005							
Total	3,542	2,366	663	353	57	7	96
%	100.0	66.8	18.7	10.0	1.6	0.2	2.7
2006							
Total	2,851	2,263	320	156	30	1	81
%	100.0	79.4	11.2	5.5	1.1	0.0	2.8

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 23: Distribution of households by household interview acceptance (R3 & R4)

		db135 =		
	Total	1	2	Missing
2004				
Total	3,505	3,439	66	0
%	100.0	98.1	1.9	0.0
2005				
Total	2,366	2,366	0	0
%	100.0	100.0	0.0	0.0
2006				
Total	2,263	2,263	0	0
%	100.0	100.0	0.0	0.0

Source: EU-SILC longitudinal sample 2004, 2005, 2006

2.3.3.4. Distribution of persons for membership status

The following tables are provided for the second and third wave of the EU-SILC longitudinal component.

Table 24: Distribution of persons by membership status (R3 & R4)

	Total	Current household members				Not current household members		
		RB110 = 1	RB110 = 2	RB110 = 3	RB110 = 4	RB110 = 5	RB110 = 6	RB110 = 7
2005	6378	5891	54	137	64	170	43	19
%	100.0	92.4	0.8	2.1	1.0	2.7	0.7	0.3
2006	5924	5574	30	102	45	143	30	0
%	100.0	94.1	0.5	1.7	0.8	2.4	0.5	0.0

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 25: Distribution of persons by "moved to" (RB120), (R3 & R4)

		Rb110 = 5				
		Rb120 = 1		Not current household members		
	Total	This person is a current household member of a household this wave	This person is not a current household member	RB110 = 2	RB110 = 3	RB110 = 4
2005	170	54	69	7	16	24
%	100	31.8	40.6	4.1	9.4	14.1
2006	143	24	80	10	20	9
%	100	16.8	55.9	7.0	14.0	6.3

Source: EU-SILC longitudinal sample 2004, 2005, 2006

2.3.3.5. Item non-response

The following tables provide an overview of non-response on household and individual level. For every income component the total number of households / persons having received the component is given and a breakdown with regard to the completeness of the information. The tables cover the dataset for each wave and for each wave the fraction interviewed in all three waves.

Table 26: Information on item non-response on household level – households 2004 (R3 & R4)

		Households having received an amount		Full information		Partial information		Missing information	
		Total	%	Total	%	Total	%	Total	%
Household incomes									
HY010	Total household gross income	3435	99.9%	1,159	33.7%	1,610	46.9%	666	19.4%
HY020	Total disposable household income	3438	100.0%	1,758	51.1%	1,462	42.5%	218	6.3%
HY022	Total disposable household income before social transfers other than old-age and survivors' benefits	3379	98.3%	1,759	52.1%	1,243	36.8%	377	11.2%
HY023	Total disposable household income including old-age and survivors' benefits	2923	85.0%	1,478	50.6%	1,025	35.1%	420	14.4%
Net income components at household level									
HY040N	Income from rental of a property or land	192	5.6%	145	75.5%	12	6.3%	35	18.2%
HY050N	Family/child related allowances	1307	38.0%	1,155	88.4%	141	10.8%	11	0.8%
HY060N	Social exclusion not elsewhere classified	83	2.4%	76	91.6%	2	2.4%	5	6.0%
HY070N	Housing allowances	127	3.7%	121	95.3%	5	3.9%	1	0.8%
HY080N	Regular inter-household cash transfer received	246	7.2%	208	84.6%	4	1.6%	34	13.8%
HY090N	Interest, dividends, profit from capital investments	885	25.7%	257	29.0%	61	6.9%	567	64.1%
HY110N	Income received by people aged under 16	36	1.0%	28	77.8%	0	0.0%	8	22.2%
HY130N	Regular inter-household cash transfer paid	238	6.9%	214	89.9%	8	3.4%	16	6.7%
HY145N	Repayments/receipts for tax adjustment	1179	34.3%	1,163	98.6%	7	0.6%	9	0.8%
Gross income components at household level									
HY040G	Income from rental of a property or land	192	5.6%	72	37.5%	34	17.7%	86	44.8%
HY050G	Family/child related allowances	1307	38.0%	1,155	88.4%	141	10.8%	11	0.8%
HY060G	Social exclusion not elsewhere classified	83	2.4%	76	91.6%	2	2.4%	5	6.0%
HY070G	Housing allowances	127	3.7%	121	95.3%	5	3.9%	1	0.8%
HY080G	Regular inter-household cash transfer received	246	7.2%	208	84.6%	4	1.6%	34	13.8%
HY090G	Interest, dividends, profit from capital investments	885	25.7%	202	22.8%	50	5.6%	633	71.5%
HY110G	Income received by people aged under 16	36	1.0%	16	44.4%	0	0.0%	20	55.6%
HY130G	Regular inter-household cash transfer paid	238	6.9%	214	89.9%	8	3.4%	16	6.7%
HY140G	Tax on Income and Social Contributions	3355	97.6%	1,131	33.7%	1,866	55.6%	358	10.7%

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 27: Information on item non-response on household level – households 2005 (R3 & R4)

		Households having received an amount		Full information		Partial information		Missing information	
		Total	%	Total	%	Total	%	Total	%
Household incomes									
HY010	Total household gross income	2,366	100.0%	862	36.4%	1,339	56.6%	165	7.0%
HY020	Total disposable household income	2,366	100.0%	1,379	58.3%	970	41.0%	17	0.7%
HY022	Total disposable household income before social transfers other than old-age and survivors' benefits	2,346	99.2%	1,394	59.4%	916	39.0%	36	1.5%
HY023	Total disposable household income including old-age and survivors' benefits	2,241	94.7%	1,365	60.9%	742	33.1%	134	6.0%
Net income components at household level									
HY040N	Income from rental of a property or land	102	4.3%	74	72.5%	23	22.5%	5	4.9%
HY050N	Family/child related allowances	937	39.6%	930	99.3%	6	0.6%	1	0.1%
HY060N	Social exclusion not elsewhere classified	50	2.1%	46	92.0%	1	2.0%	3	6.0%
HY070N	Housing allowances	85	3.6%	79	92.9%	3	3.5%	3	3.5%
HY080N	Regular inter-household cash transfer received	173	7.3%	164	94.8%	1	0.6%	8	4.6%
HY090N	Interest, dividends, profit from capital investments	1,874	79.2%	1,256	67.0%	156	8.3%	462	24.7%
HY110N	Income received by people aged under 16	16	0.7%	14	87.5%	0	0.0%	2	12.5%
HY130N	Regular inter-household cash transfer paid	188	7.9%	178	94.7%	3	1.6%	7	3.7%
HY145N	Repayments/receipts for tax adjustment	1,039	43.9%	995	95.8%	14	1.3%	30	2.9%
Gross income components at household level									
HY040G	Income from rental of a property or land	102	4.3%	46	45.1%	17	16.7%	39	38.2%
HY050G	Family/child related allowances	937	39.6%	930	99.3%	6	0.6%	1	0.1%
HY060G	Social exclusion not elsewhere classified	50	2.1%	46	92.0%	1	2.0%	3	6.0%
HY070G	Housing allowances	85	3.6%	79	92.9%	3	3.5%	3	3.5%
HY080G	Regular inter-household cash transfer received	173	7.3%	164	94.8%	1	0.6%	8	4.6%
HY090G	Interest, dividends, profit from capital investments	1,874	79.2%	1,256	67.0%	156	8.3%	462	24.7%
HY110G	Income received by people aged under 16	16	0.7%	11	68.8%	0	0.0%	5	31.3%
HY130G	Regular inter-household cash transfer paid	188	7.9%	178	94.7%	3	1.6%	7	3.7%
HY140G	Tax on Income and Social Contributions	2,335	98.7%	845	36.2%	1,422	60.9%	68	2.9%

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 28: Information on item non-response on household level – households 2006 (R3 & R4)

		Households having received an amount		Full information		Partial information		Missing information	
		Total	%	Total	%	Total	%	Total	%
Household incomes									
HY010	Total household gross income	2263	100.0%	744	32.9%	1361	60.1%	158	7.0%
HY020	Total disposable household income	2263	100.0%	1405	62.1%	850	37.6%	8	0.4%
HY022	Total disposable household income before social transfers other than old-age and survivors' benefits	2242	99.1%	1408	62.8%	814	36.3%	20	0.9%
HY023	Total disposable household income including old-age and survivors' benefits	2108	93.2%	1354	64.2%	662	31.4%	92	4.4%
Net income components at household level									
HY040N	Income from rental of a property or land	88	3.9%	76	86.4%	4	4.5%	8	9.1%
HY050N	Family/child related allowances	860	38.0%	856	99.5%	4	0.5%	0	0.0%
HY060N	Social exclusion not elsewhere classified	36	1.6%	33	91.7%	1	2.8%	2	5.6%
HY070N	Housing allowances	73	3.2%	68	93.2%	4	5.5%	1	1.4%
HY080N	Regular inter-household cash transfer received	152	6.7%	149	98.0%	0	0.0%	3	2.0%
HY090N	Interest, dividends, profit from capital investments	1736	76.7%	1164	67.1%	118	6.8%	454	26.2%
HY110N	Income received by people aged under 16	23	1.0%	16	69.6%	0	0.0%	7	30.4%
HY130N	Regular inter-household cash transfer paid	144	6.4%	136	94.4%	4	2.8%	4	2.8%
HY145N	Repayments/receipts for tax adjustment	1006	44.5%	973	96.7%	12	1.2%	21	2.1%
Gross income components at household level									
HY040G	Income from rental of a property or land	87	3.8%	40	46.0%	15	17.2%	32	36.8%
HY050G	Family/child related allowances	860	38.0%	856	99.5%	4	0.5%	0	0.0%
HY060G	Social exclusion not elsewhere classified	36	1.6%	33	91.7%	1	2.8%	2	5.6%
HY070G	Housing allowances	73	3.2%	68	93.2%	4	5.5%	1	1.4%
HY080G	Regular inter-household cash transfer received	152	6.7%	149	98.0%	0	0.0%	3	2.0%
HY090G	Interest, dividends, profit from capital investments	1736	76.7%	1164	67.1%	118	6.8%	454	26.2%
HY110G	Income received by people aged under 16	23	1.0%	10	43.5%	0	0.0%	13	56.5%
HY130G	Regular inter-household cash transfer paid	144	6.4%	136	94.4%	4	2.8%	4	2.8%
HY140G	Tax on Income and Social Contributions	2232	98.6%	761	34.1%	1414	63.4%	57	2.6%

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 29: Information on item non-response on individual level – persons 2004 (R3 & R4)

		Persons having received an amount		Full information		Partial information		Missing information	
		Total	%	Total	%	Total	%	Total	%
Net income components at personal level									
PY010N	Employee cash or near cash income	3,690	52.65%	2,685	72.76%	107	2.90%	898	24.34%
PY035N	Contributions to individual private pension plans	1,410	20.12%	0	0.00%	1,410	100.00%	0	0.00%
PY050N	Cash benefits or losses from self-employment	665	9.49%	398	59.85%	13	1.95%	254	38.20%
PY070N	Value of goods produced by own-consumption	123	1.75%	99	80.49%	0	0.00%	24	19.51%
PY080N	Pension from individual private plans	63	0.90%	44	69.84%	0	0.00%	19	30.16%
PY090N	Unemployment benefits	455	6.49%	387	85.05%	9	1.98%	59	12.97%
PY100N	Old-age benefits	1,656	23.63%	1,365	82.43%	53	3.20%	238	14.37%
PY110N	Survivor's benefits	77	1.10%	62	80.52%	0	0.00%	15	19.48%
PY120N	Sickness benefits	124	1.77%	80	64.52%	1	0.81%	43	34.68%
PY130N	Disability benefits	215	3.07%	182	84.65%	1	0.47%	32	14.88%
PY140N	Education-related allowances	6	0.09%	5	83.33%	0	0.00%	1	16.67%
Gross income components at personal level									
PY010G	Employee cash or near cash income	3,690	52.65%	2,329	63.12%	119	3.22%	1,242	33.66%
PY035G	Contributions to individual private pension plans	1,410	20.12%	0	0.00%	1,410	100.00%	0	0.00%
PY050G	Cash benefits or losses from self-employment	665	9.49%	187	28.12%	70	10.53%	408	61.35%
PY070G	Value of goods produced by own-consumption	123	1.75%	99	80.49%	0	0.00%	24	19.51%
PY080G	Pension from individual private plans	63	0.90%	20	31.75%	0	0.00%	43	68.25%
PY090G	Unemployment benefits	455	6.49%	380	83.52%	10	2.20%	65	14.29%
PY100G	Old-age benefits	1,656	23.63%	739	44.63%	96	5.80%	821	49.58%
PY110G	Survivor's benefits	77	1.10%	26	33.77%	2	2.60%	49	63.64%
PY120G	Sickness benefits	124	1.77%	31	25.00%	3	2.42%	90	72.58%
PY130G	Disability benefits	215	3.07%	121	56.28%	8	3.72%	86	40.00%
PY140G	Education-related allowances	6	0.09%	5	83.33%	0	0.00%	1	16.67%

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 30: Information on item non-response on individual level – persons 2005 (R3 & R4)

		Persons having received an amount		Full information		Partial information		Missing information	
		Total	%	Total	%	Total	%	Total	%
Net income components at personal level									
PY010N	Employee cash or near cash income	2579	52.43%	2,275	88.21%	165	6.40%	139	5.39%
PY035N	Contributions to individual private pension plans	1112	22.61%	1,009	90.74%	0	0.00%	103	9.26%
PY050N	Cash benefits or losses from self-employment	490	9.96%	319	65.10%	94	19.18%	77	15.71%
PY070N	Value of goods produced by own-consumption	95	1.93%	94	98.95%	0	0.00%	1	1.05%
PY080N	Pension from individual private plans	13	0.26%	11	84.62%	0	0.00%	2	15.38%
PY090N	Unemployment benefits	299	6.08%	262	87.63%	15	5.02%	22	7.36%
PY100N	Old-age benefits	1173	23.85%	1,033	88.06%	78	6.65%	62	5.29%
PY110N	Survivor's benefits	43	0.87%	39	90.70%	0	0.00%	4	9.30%
PY120N	Sickness benefits	75	1.52%	60	80.00%	1	1.33%	14	18.67%
PY130N	Disability benefits	146	2.97%	140	95.89%	0	0.00%	6	4.11%
PY140N	Education-related allowances	89	1.81%	81	91.01%	0	0.00%	8	8.99%
Gross income components at personal level									
PY010G	Employee cash or near cash income	2579	52.43%	1,642	63.67%	158	6.13%	779	30.21%
PY035G	Contributions to individual private pension plans	1112	22.61%	1,009	90.74%	0	0.00%	103	9.26%
PY050G	Cash benefits or losses from self-employment	490	9.96%	207	42.24%	60	12.24%	223	45.51%
PY070G	Value of goods produced by own-consumption	95	1.93%	94	98.95%	0	0.00%	1	1.05%
PY080G	Pension from individual private plans	13	0.26%	8	61.54%	0	0.00%	5	38.46%
PY090G	Unemployment benefits	299	6.08%	252	84.28%	18	6.02%	29	9.70%
PY100G	Old-age benefits	1173	23.85%	516	43.99%	223	19.01%	434	37.00%
PY110G	Survivor's benefits	43	0.87%	15	34.88%	7	16.28%	21	48.84%
PY120G	Sickness benefits	75	1.52%	19	25.33%	15	20.00%	41	54.67%
PY130G	Disability benefits	146	2.97%	81	55.48%	18	12.33%	47	32.19%
PY140G	Education-related allowances	89	1.81%	81	91.01%	0	0.00%	8	8.99%

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 31: Information on item non-response on individual level – persons 2006 (R3 & R4)

		Persons having received an amount		Full information		Partial information		Missing information	
		Total	%	Total	%	Total	%	Total	%
Net income components at personal level									
PY010N	Employee cash or near cash income	2413	52.33%	2,181	90.39%	141	5.84%	91	3.77%
PY035N	Contributions to individual private pension plans	1109	24.05%	1,024	92.34%	0	0.00%	85	7.66%
PY050N	Cash benefits or losses from self-employment	425	9.22%	353	83.06%	12	2.82%	60	14.12%
PY070N	Value of goods produced by own-consumption	90	1.95%	76	84.44%	0	0.00%	14	15.56%
PY080N	Pension from individual private plans	12	0.26%	11	91.67%	0	0.00%	1	8.33%
PY090N	Unemployment benefits	257	5.57%	241	93.77%	6	2.33%	10	3.89%
PY100N	Old-age benefits	1159	25.14%	1,043	89.99%	77	6.64%	39	3.36%
PY110N	Survivor's benefits	39	0.85%	37	94.87%	0	0.00%	2	5.13%
PY120N	Sickness benefits	66	1.43%	51	77.27%	2	3.03%	13	19.70%
PY130N	Disability benefits	145	3.14%	141	97.24%	1	0.69%	3	2.07%
PY140N	Education-related allowances	71	1.54%	64	90.14%	0	0.00%	7	9.86%
Gross income components at personal level									
PY010G	Employee cash or near cash income	2413	52.33%	1,453	60.22%	117	4.85%	843	34.94%
PY035G	Contributions to individual private pension plans	1109	24.05%	1,024	92.34%	0	0.00%	85	7.66%
PY050G	Cash benefits or losses from self-employment	425	9.22%	198	46.59%	32	7.53%	195	45.88%
PY070G	Value of goods produced by own-consumption	90	1.95%	76	84.44%	0	0.00%	14	15.56%
PY080G	Pension from individual private plans	12	0.26%	6	50.00%	0	0.00%	6	50.00%
PY090G	Unemployment benefits	257	5.57%	239	93.00%	7	2.72%	11	4.28%
PY100G	Old-age benefits	1159	25.14%	458	39.52%	266	22.95%	435	37.53%
PY110G	Survivor's benefits	39	0.85%	13	33.33%	8	20.51%	18	46.15%
PY120G	Sickness benefits	66	1.43%	20	30.30%	8	12.12%	38	57.58%
PY130G	Disability benefits	145	3.14%	80	55.17%	13	8.97%	52	35.86%
PY140G	Education-related allowances	71	1.54%	64	90.14%	0	0.00%	7	9.86%

Source: EU-SILC longitudinal sample 2004, 2005, 2006

2.4. Mode of data collection

Table 32: Distribution of household members by data status – all household members (16+) (R3 & R4)

	Total	RB250 = 11	RB250 = 12	RB250 = 14	RB250 = 21	RB250 = 23	RB250 = 31	RB250 = 32	RB250 = 33
2004									
Total	7,009	6,963	0	46	0	0	0	0	0
%	100.0	99.3	0.0	0.7	0.0	0.0	0.0	0.0	0.0
2005									
Total	4,865	4,831	0	34	0	0	0	0	0
%	100.0	99.3	0.0	0.7	0.0	0.0	0.0	0.0	0.0
2006									
Total	4,584	4,571	0	13	0	0	0	0	0
%	100.0	99.7	0.0	0.3	0.0	0.0	0.0	0.0	0.0

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 33: Distribution of household members by data status – sample persons (16+) (R3 & R4)

	Total	RB250 = 11	RB250 = 12	RB250 = 14	RB250 = 21	RB250 = 23	RB250 = 31	RB250 = 32	RB250 = 33
2004									
Total	7,009	6,963	0	46	0	0	0	0	0
%	100.0	99.3	0.0	0.7	0.0	0.0	0.0	0.0	0.0
2005									
Total	4,763	4,730	0	33	0	0	0	0	0
%	100.0	99.3	0.0	0.7	0.0	0.0	0.0	0.0	0.0
2006									
Total	4,433	4,422	0	11	0	0	0	0	0
%	100.0	99.8	0.0	0.2	0.0	0.0	0.0	0.0	0.0

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 34: Distribution of household members by data status – co-residents (16+) (R3 & R4)

	Total	RB250 = 11	RB250 = 12	RB250 = 14	RB250 = 21	RB250 = 23	RB250 = 31	RB250 = 32	RB250 = 33
2004									
Total	0	0	0	0	0	0	0	0	0
%	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2005									
Total	102	101	0	1	0	0	0	0	0
%	100.0	99.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
2006									
Total	151	149	0	2	0	0	0	0	0
%	100.0	98.7	0.0	1.3	0.0	0.0	0.0	0.0	0.0

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 35: Distribution of household members by type of interview – all household members (16+) (R3 & R4)

	Total	RB260 = 1	RB260 = 2	RB260 = 3	RB260 = 4	RB260 = 5
2004						
Total	6,963	0	5,965	0	0	998
%	100.0	0.0	85.7	0.0	0.0	14.3
2005						
Total	4,831	0	3,286	286	0	1,259
%	100.0	0.0	68.0	5.9	0.0	26.1
2006						
Total	4,571	0	3,615	42	0	914
%	100.0	0.0	79.1	0.9	0.0	20.0

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 36: Distribution of household members by type of interview – sample persons (16+) (R3 & R4)

	Total	RB260 = 1	RB260 = 2	RB260 = 3	RB260 = 4	RB260 = 5
2004						
Total	6,963	0	5,965	0	0	998
%	100.0	0.0	85.7	0.0	0.0	14.3
2005						
Total	4,730	0	3,231	285	0	1,214
%	100.0	0.0	68.3	6.0	0.0	25.7
2006						
Total	4,422	0	3,520	42	0	860
%	100.0	0.0	79.6	0.9	0.0	19.4

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 37: Distribution of household members by type of interview – co-residents (16+) (R3 & R4)

	Total	RB260 = 1	RB260 = 2	RB260 = 3	RB260 = 4	RB260 = 5
2004						
Total	0	0	0	0	0	0
%	100.0	0.0	0.0	0.0	0.0	0.0
2005						
Total	101	0	55	1	0	45
%	100.0	0.0	54.5	1.0	0.0	44.6
2006						
Total	149	0	95	0	0	54
%	100.0	0.0	63.8	0.0	0.0	36.2

Source: EU-SILC longitudinal sample 2004, 2005, 2006

2.5.   Imputation procedure

The following chapter describes the imputation procedures in EU-SILC 2004, EU-SILC 2005 and EU-SILC 2006.

General remarks

The imputation procedures in EU-SILC 2004, EU-SILC 2005 and EU-SILC 2006 are very similar except for the application of longitudinal imputation procedures in EU-SILC 2005 and EU-SILC 2006. Imputation refers to all procedures to estimate and insert variable values that are missing due to item non-response.

These procedures comprise

- deductive methods

- deterministic methods

- stochastic methods

Deductive methods refer to imputation procedures in which the true value of a missing item is logically deduced. This means that the value is either deduced from other variables of the survey or is derived from legal regulations. An example for the first mode of deductions is the net-gross-net conversion, when either the gross value or the net value is given and the corresponding missing value is calculated by applying general rules. An example for the latter mode is when the value of the childcare benefit (*Kinderbetreuungsgeld*) is missing and the effectual value can be inserted.

The difference between deterministic and stochastic methods is whether the calculation procedure to calculate the missing item includes a residual term or not. Deterministic methods were primarily used in cases when the integration of a residual term seemed not to be reasonable. Stochastic methods were mainly used to estimate missing income variables.

Imputation procedures were both applied to complete missing information because of unit-non response or because of item-non response.

Missing personal interviews

Statistics Austria replaces missing personal interviews of persons that could not be interviewed because of temporary absence, because of refusal of cooperation or because of other reasons. To do so, a distance function to determine an appropriate donor case to complete the information for the missing interview is used. The distance function uses a given set of variables to compute the similarity of interviews and ranks the interviews accordingly. Then the nearest neighbour was determined as a donor, given that a set of minimum requirements is fulfilled:

- The donor case and the case with the missing personal interview share the same sex.

- The interview is not a proxy interview.

- The donor case should share the same employment status[13]

Here the procedure varies between the waves, as in EU-SILC 2005 and EU-SILC 2006 two procedures of imputing missing personal interviews were possible: the person has been interviewed for the first time or the person was interviewed in the previous year. For missing interviews in EU-SILC 2004 only the cross-sectional procedure was possible.

When the person was interviewed in the preceding survey, the information of the last years' interview was used to calculate the distance function. The interviews of the previous year were ranked and the nearest neighbour was identified as the donor for the missing interview. The information of the donor in 2005 and 2006 respectively was then used to impute the required information. The variables that were used to compute the distance function are listed below.

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[13] This was done by determining the number of ranks up until this constraint is fulfilled.

Table 38: Variables used for the distance function with longitudinal information for full record imputation (2005 & 2006)

No.	Variable
1	Sex
2	Age
3	Current employment situation
4	Household size
5	Number of children under 18 in the household
6	Number of persons over 60 in the household
7	Federal state / NUTS 2
8	Highest level of education attained
9	Suffer from any chronic illness or condition / limitation in activities because of health problems
10	Household income
11	Number of months in employment / self-employment
12	Number of months in self-employment

When the person with the missing personal interview was not interviewed in the last year, no previous interview can be used to calculate the distance function. Only the information from the household and personal registers can be used. Hence the number of variables for the distance function was shorter. The variables are listed below.

Table 39: Variables used for the distance function for cross-sectional imputations for full record imputation (2005 & 2006)

No.	Variable
1	Density of population
2	Sex
3	Age
4	Household size
5	Employment status
6	Federal state / NUTS 2
7	Number of children under 18 in the household
8	Number of persons over 60 in the household
9	Household income

For EU-SILC 2004 60, for EU-SILC 2005 55 and for EU-SILC 2006 36 interviews were imputed. In the longitudinal component 36 interviews were imputed for the year 2004, 38 interviews for the year 2005 and 19 interviews for the year 2006.

Procedures to handle item non-response.

As far as item non-response is concerned, Statistics Austria in general only imputed net income variables, missing gross variables were calculated by the net-gross conversion. Item non-response of income variables occurred because of three reasons: either the information whether an income of a particular type was received or not was missing, or the information about the months an income component was received was missing, or the amount of the income was missing.

If the information whether an income component had been received was missing, Statistics Austria tried to deduce this information from other variables (e.g. the information on main activity). If it was not possible to derive this information from other questions of the questionnaire, it was assumed that no income of this kind was received.

If the information about the number of months was missing, Statistics Austria again tried to derive the length of a period an income component has been received from other variables of the survey. If this was not possible, a random value was imputed.

The question of missing income values received special attention. Basically, the respondents had more than one possibility to provide information about their income: they could provide either the gross or the net income amount, or they could provide information about their income by declaring an income category. The latter possibility was foreseen to reduce the number of missing income values. The interviewer presented show cards to support the respondent to identify the approximate range, and in case of unwillingness to respond, to reduce the burden to give an answer. If an income variable was missing but either the gross or the net amount was declared, the corresponding missing value was computed according to a model based on Austrian tax data. If the respondent declared an income category to give the information about the income received, Statistics Austria then assigned an income value by selecting a random value from within this income category.

If the respondent refused to give any information about the income, Statistics Austria applied deductive, stochastic and deterministic methods of imputation. Deductive methods were applied when the 'correct' value could be calculated from information from the questionnaire or the legal regulations. Estimations made by these methods produce comparatively exact results that are relatively close to the missing true value.

For other missing income information Statistics Austria applied two approaches: longitudinal and cross-sectional imputation. The longitudinal method was used when the person with the missing information has declared a value in 2004 or 2005. For all other cases the cross-sectional imputation method was used.

The longitudinal imputation procedure is based on the row-and-column-method of Little and Su[14]. As suggested by the name, the method uses the row effects and the column effects of the data to identify an appropriate donor case. The row effect, then, is the development of the variable between waves, and the column effect quantifies the relation of one case to all other observations in the sample. This results in a total effect that is used to sort the data file. The nearest neighbour is then used as a donor value.

As cross-sectional imputation Statistics Austria used regression models as estimation procedures. The estimated values were then added with a residual term to prevent the attenuation of the variance. This estimation procedure required the specification of several regression models per income component to ensure that a value can be estimated in case of missing values in predictor variables in the most sophisticated models.

The predictors were selected according to their predictive capability (variation of the R^2) and / or according to theoretical assumptions about the response variable. In cases where no regression model could be specified the missing information was estimated by using the group mean or the group median of the distribution added with a random residual term.

The following figure describes the procedure for missing information for income questions.

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[14] Little, Roderick J.A. / Su, Hong-Lin (1989) , *Item Non-response in Panel Surveys*. In: Kasprzyk/Duncan/Kalton/Singh (1989), *Panel Surveys.* New York, p. 400-425

Figure 2: Editing procedure for income data

step 1

Income component received?

n.a.

yes ← calendar etc. → no

step 2

How long?

n.a. → calendar or imputation → number of months/times

step 3

How much gross?

n.a. → gross amount

N/G-conversion or G/N-conversion

step 4

How much net?

n.a. → category? → category imputation → net amount

n.a. → statistical imputation

n.a. = no answer
G/N = gross/net
N/G = net/gross
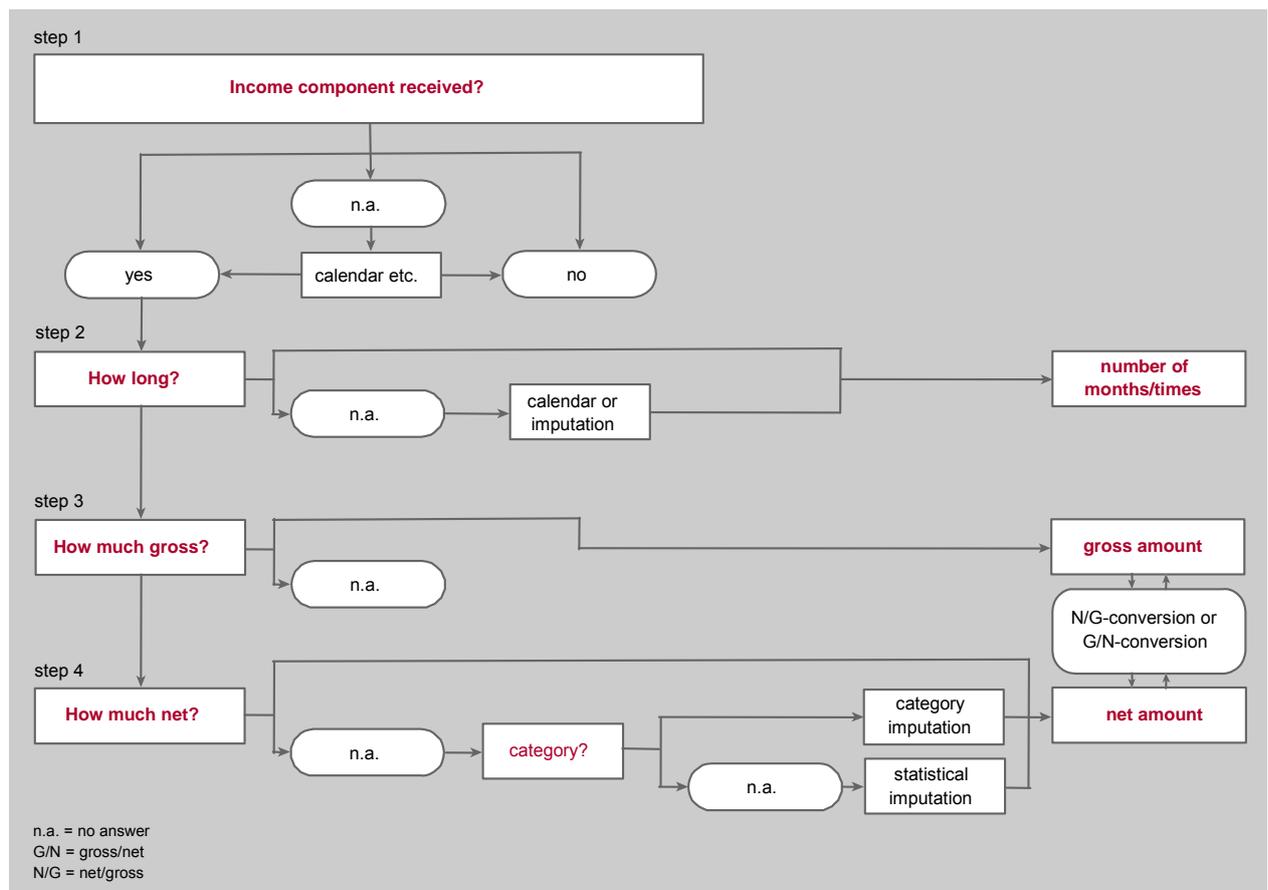
2.6. Imputed rent

For the waves 2004, 2005 and 2006 Statistic Austria has not calculated imputed rents. Imputed rents (HY030G/N) are only obligatory as of 2007.

2.7. Company cars

The private use of a company car was recorded in the questionnaire of all three years. The value of this use was deduced according to the relevant tax regulations. The value is included in variable PY010.

3.   Comparability

This chapter reports on the differences between EUROSTAT definitions and the definitions applied in EU-SILC 2004, EU-SILC 2005 and EU-SILC 2006. It also reports on the impact of these differences on the comparability.

3.1.   *Basic concepts and definitions*

(a)   Reference population

No difference to the common definition in either wave.

(b)   Private household

The following definition refers to EU-SILC 2004, EU-SILC 2005 and EU-SILC 2006 similarly.

Private households were generally defined as a person living alone or a group of persons living in the same dwelling. All persons at the dwelling form the household as shared expenses were assumed. .

Household members thus are:

- All persons who are actually living in the dwelling unit,. The question whether these residents have their main residence in this particular dwelling, is not relevant. Only those dwellings are included in the sampling frame in which at least one person age 16 years or older has his or her main residence.

- Lodgers, visitors, au-pairs and guests are considered members of the household if they stay or intend to stay 6 months or longer in the household, or if they do not have any other home address.

- Persons who are temporarily away for less than 6 months and are not members of other private households.

- Household members who are absent for 6 months or longer who are not members of other private households and/or are children or partners of actual household members.

- Under the assumption of sharing expenses only one household per dwelling was counted.

- From 2007 onwards the definition will be applied more precisely to better comply with the EUROSTAT definition: If there is more than one household living in one dwelling and not sharing expenses, they will be collected as different households. If the persons living at the particular address clearly do not share their expenses (meaning for example a lodger is paying for his or her rent and does not share utility costs or food with the rest of the household), a separate additional household will be registered at the same address. Flat-sharing communities are in most of the cases considered as one household because in the majority of cases the members of such communities are sharing their living costs. If the expenses of the flat-sharing community are not shared, meaning that the payments for rent, operating costs and daily expenses are paid individually, the members would constitute individual households.

The following groups of persons connected to the household are not considered as household members:

- Persons 6 months or longer away from the household and not parents or children of actual household members

- Persons less than 6 months away from the household but living in or constituting another private household.

(c)   Household membership

Given the difference of the definitions of private household, the definitions of household membership differ analogously.

(d)   Income period(s) used

No difference to the common definition. The income reference year for EU-SILC 2004 was 2003, for EU-SILC 2005 the year 2004 and for EU-SILC 2006 the year 2005.

(e)   The period for taxes on income and social insurance contributions

No difference to the common definition. Income reference years again were 2003, 2004 and 2005, meaning that repayments and receipts of tax adjustments are measured if the money was paid or received in the respective year.

(f)   The reference period for taxes on wealth

There are no taxes on wealth in Austria

(g)   The lag between the income reference period and current variables

For EU-SILC 2004 the gap between the income reference period and the data of the interview was in all cases shorter than 7 months. For EU-SILC 2005 the fieldwork was finished at the end of November, exceeding the recommended termination of the fieldwork by three months. In 2006 the fieldwork period started on the 6th of April and ended on the 24th of September. The gap between the income reference period and the current period exceeded the prescribed gap of 8 month by 3 weeks.

(h)   The total duration of the data collection of the sample

The data collection for EU-SILC 2004 lasted 20 weeks and the last data files received to Statistics Austria on the 27th of July 2004. For EU-SILC 2005 the data collection period lasted 33 weeks and the last files were received on the 19th of January 2006. For EU-SILC 2006 data collection period lasted 23 weeks. Additionally, until the middle of October several call-backs were carried out, so that the final files were received on the 24th of October 2006.

(i)   Basic information on activity status during the income reference period

In both waves the information was collected with the questionnaire by an activity calendar covering each month of the income reference period.

3.2.   Components of income

3.2.1.   Differences between the national definitions and standard EU-SILC definitions

Income components where no difference between national and standard definitions can be found are not mentioned. The differences between the national and the EUROSTAT definitions refer to all three waves unless stated otherwise. Some additional remarks are also given in this chapter. Please note that they do not necessarily refer to incomparabilities.

(a)   Total household gross income (HY010)

The Austrian questionnaire comprised questions on two income components that are not target variables of EU-SILC. These components were, first, the income received by persons doing their military service or civilian service, and, second, "other income, not elsewhere classified". The latter question was integrated to avoid under-recording caused by misunderstandings. The total disposable household (gross) income contains these two income components. On individual level, the income from military / civilian service was integrated with the income for employees and the "other income" was merged either with the employee income, the income from self-employment or old-age benefits, depending on plausibility.

(b)   Total disposable household income (HY020)

See above (HY010).

(c)   Total disposable household income, before social transfers other than old-age and survivors' benefits (HY022)

See above (HY010).

(d)   Total disposable household income, before social transfers including old-age and survivors' benefits (HY023)

See above (HY010).

(e)   Family related allowances (HY050)

In 2003 and 2004 education related allowances were included in HY050 when the amount of the income depended on the recipient's personal and/or family income. This was changed in EU-

SILC2005 and from now on all education related allowances are reported in variable PY140. The impact of this change on HY050 is however small, as education related allowances only made a very small share on the total family related allowances.

(f)   Cash-or near-cash employee income (PY010)

This variable additionally includes payments in kind for the private use of company cars, income from compulsory military or civilian service, other income not elsewhere classified (if plausible) and proportional lump-sum payments if the person is employed for more than 1 month.

(g)   Non-cash employee income (PY020)

Payments in kind for the private use of a company car are included in PY010. Other payments in kind were recorded for the first time in EU-SILC 2005 but according to the regulation they will only be included in PY020 (or PY010) from 2007 on: free lodging, free meals, fuel/electricity, other non-cash income.

(h)   Cash profits or losses from self-employment (PY050)

In EU-SILC 2004 the exact amount of losses was not recorded but these cases were assigned an income of 1 in the target variables to distinguish between persons who were not self-employed and those who were but had a negative income. From 2005 onwards Statistics Austria has been recording negative incomes too.

This income component includes additionally other income not elsewhere classified, if plausible (see above (HY010)). Additionally, sales revenues from privately sold goods (like sold fruits from the own garden) were added to this income component in 2006.

We think that it is only possible to ask the question concerning the privately sold goods in the household questionnaire; otherwise we are not sure to avoid double reporting. To report it as a personal variable as foreseen by the regulation we therefore have taken the decision to transfer the whole amount to the person with the highest income from self-employment or, in case that there is no self-employed within the household, to the person with the lowest personal income. However, this procedure can pose problems of comparability when other countries survey this kind of income either on the personal level or adopt other methods to redistribute the household value to persons in the household.[15]

(i) Value of goods produced for own consumption

This component will only be mandatory from 2007 on and we therefore have not included it in household income yet. However, we collected it from 2005 on. Different from 2005, only really own-consumed goods were added to this income component and not sales revenues from privately sold goods (see PY050).

For the same reasons as explained above regarding privately sold goods (see PY050), the privately produced goods for own consumption are collected at household level and then added to a personal income.

(j)   Unemployment benefits (PY090)

This income component includes proportional lump-sum payments, if the person is unemployed (for at least 2 months).

(k)   Old-age benefits (PY100)

This component also includes other income not elsewhere stated, if plausible and proportional lump-sum payments if the person is retired (at least 2 monthly regular payments, up to the total lump-sum payments). Since the standard retirement age in Austria is 65 years for men and 60 years for women, it contains all pension benefits paid to persons aged 65/60 or over.

(l)   Education related allowances (PY140)

See above HY050. As to the changes mentioned above PY140 from EU-SILC 2005 on can not be directly compared to values from 2003 and 2004.

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[15]   In the revised EU-SILC Doc 65 it is also recommended to ask the amount on household level and assign it to a member of the household.

3.2.2. The source and procedure used for the collection of income variables

The EU-SILC income target variables were split into more differentiated sub-components. The sub-components were defined according to the Austrian regulations and benefit system. These components were surveyed in the questionnaire except those that were calculated on the basis of the information given in the questionnaire. For example, the respondents were not asked to give the amount of the family allowance, because the amount was calculated on the basis of the information about the family situation (number and age of children).

Between the three waves from EU-SILC 2004 to EU-SILC 2006 the questionnaire was partly revised for some income variables.

Changes between 2004 and 2005[16]:

Cash profits or losses from self-employment (PY050) and income from rental of a property or land (HY040): We changed the question from yearly income in 2003 and 2004 to a question that corresponds to monthly drawing from business. This seems to be more reliable and valid, the reported income increases. Also, in from 2005 onwards negative incomes were registered, and profits from contracts for services (*Werkvertrag*) and profits for quasi-freelance contracts (*freier Dienstvertrag*) were asked in one question.

Cash-or near-cash employee income (PY010): The questions were much extended to survey components in more detail and it was decided to survey monthly income instead of annual income as it was done in 2004 – however if the respondent chose to answer to the annual income question this was also possible in the later surveys. Besides the regular monthly income "13th and 14th month" salaries, holiday remunerations, tips, bonus payments, overtime pay, severance pay, commissions, family related payments of the employer, benefits for commuting expenses and other payments of the employer were surveyed. This is an improvement to 2004 were only "13th and 14th month" salaries, overtime pay, commissions and "other benefits" were named, but not separately surveyed. Plus, a new show-card was used to activate respondents to remember their receipts better. Additionally, benefits in kind were asked in more detail.

Unemployment benefits (PY090): The unemployment benefits included the special unemployment assistance (*Sondernotstandsunterstützung*) in 2004. The question about this benefit was replaced from 2005 onwards by a question about the part-time benefit for older workers (*Altersteilzeitgeld*).

Education related benefits (PY140): The collection of education related allowances was revised to cover the Austrian benefit structure more appropriately without increasing the burden for the interviewees.

In 2004 the question for the receipt of alimonies were asked in the personal questionnaire, from 2005 onwards these questions are included in the household questionnaire.

In 2004 the exact amount of the long-term care benefit was asked. In 2005 this was changed because this benefit is available in ranks (*Pflegestufen*), which refer to a certain amount. Hence, in from 2005 onwards these ranks are asked.

Interest, dividends and profit from capital investment (HY090): As interviewers reported this to be an especially difficult question we eased the response burden by only asking one question on all of these income components in total, revising order of the appearance and adapting the wording of the question in EU-SILC 2005.

2004 it was asked: Please tell me if you had any of the following incomes?

- Income from interests yes/no
- Income from dividends yes/no
- Income from investments in business yes/no
- Other income from capital yes/no

If yes each component was asked gross and net

From 2005 onwards it is asked: Did you <u>own</u> one or several of the following <u>assets</u> in 2004: Saving book, saving contract, shares, options, licences, etc.

If yes: All in all what was your net profit in 2004?

Changes between 2005 and 2006:

Compared to the changes from 2004 to 2005, only few changes or adaptations were implemented in EU-SILC 2006. Changes were implemented mainly with regard to the routing of the questionnaire and with regard to checks of the CAPI programme.

3.2.3. The form in which income variables at component level have been obtained

Respondents were asked for all income components that are subject to taxation and/or social security contribution, to give the net and gross amount. Gross in this context means that if a component is subject to taxes and social security contributions both amounts were included. Employer's contributions were not taken into account. This procedure was conducted in all three waves. If the respondent refuses to give the exact amount, the questionnaire allows giving an income class.

3.2.4. The method used for obtaining the income target variables in the required form

Here, also no changes were made between EU-SILC 2004, EU-SILC 2005 and EU-SILC 2006. Gross and net income variables were asked separately, if applicable. If the respondents were not willing or not able to provide one of these amounts (net or gross) Statistics Austria calculated the missing value on the basis of the information given, e.g. if the net value was given and the gross value was missing, the gross value was calculated on the basis of the net value. If both values were missing (and the respondent refused or was not able to give an income class), Statistics Austria first imputed the net value and then calculated the gross value on the basis of the imputed net value (see 2.5).

The conversion of net to gross values and vice versa was carried out on the basis of appropriate tax data. This means, for employees' income and pensions the conversion was done on the basis of the wage tax statistics of 2003, 2004 and 2005. Income from self-employment was converted on the basis of regression models which used the information of complete cases (cases where the net and the gross value was given).

3.3.   Tracing rules

For the first year of the longitudinal component of EU-SILC no tracing rules were to be applied.

For the second and third wave of the longitudinal component of EU-SILC, the tracing rules as laid down in the document EU-SILC 065 were applied. To identify the residence from person moving from one address to another address, the Statistics Austria made use of the ZMR.

4.   Coherence

Coherence refers to the comparison of target variables with external sources. The target variables in EU-SILC are a set of compulsory variables, defined by EUROSTAT. The member states deliver these target variables but can decide how to obtain the required information. In Austria, the structure of the questionnaire and the items were influenced by the structure of social security benefits, tax rules and other legal circumstances.

4.1.   Comparison of income target variables and number of persons who receive income from each income component

4.1.1. Description of data sources

In the following we will describe the data source with which the longitudinal data set EU-SILC 2004-2005-2006 is compared. If not mentioned particularly, the explanatory notes apply likewise to all three waves of the dataset. The description of the external datasets follows the description of the external data in the Intermediate Quality Reports of 2004, 2005 and 2006.

Wage tax statistics

The Austrian Wage Tax Statistics (WTS) contains information on the incomes from employees and pensioners if the income is gained at source in Austria. This makes the WTS a valuable source for the comparison of the most important income component at personal level, the income from employment. The comparison with pensions is more complex due to conceptual reasons: the WTS covers all pensions regardless of the age of the beneficiary and the type of pension but in EU-SILC some types of pension income are only accounted as such when the beneficiary has reached the normal retirement age (for men 65, for women 60). Due to that the comparison of pensions accounted in the WTS and pensions in the longitudinal component of EU-SILC is omitted.

But there are also conceptual differences regarding income from employment. An important share of these differences can be explained by the different coverage of EU-SILC and the WTS. The main differences of the coverage are:

- EU-SILC does not cover persons outside private households;

- EU-SILC cannot cover persons who have died or moved to another country between the tax reference period and the time of the survey;

- EU-SILC does not cover persons who do not live in private households or who are aged 15 years or younger;

- Some lump-sum payments are registered in the WTS but only partially in EU-SILC.

4.1.2. Comparisons

The following tables show a comparison of the distributions of the gross yearly income of employed persons (py010g) by sex and age between the data of EU-SILC and the wage tax statistics. Only persons who were present in the target population between the years 2004 and 2006 are shown in these tables. The income refers to those who were employed for the whole income reference period of EU-SILC 2006, i.e. persons who were employed for 12 months in the year 2005. The youngest and the oldest age groups were dropped. On the one hand people younger than 16 do not have an income in EU-SILC by definition (cf. ch. 4.1.1.). On the other hand all people in the longitudinal component of EU-SILC aged 70 and over in 2005 that had an employee income were also retired. Since retirement was the main activity status of these persons during the whole year, they can't appear in a comparison between employed persons. To ensure proper representation the cross-sectional weight pb050 was rescaled to the population of persons aged 16 years and over in the income reference period of the longitudinal component. The median incomes in the wage tax statistics tend to be higher. The reason for this could be that the data of the yearly income contains some extra payments which are not recorded in EU-SILC.

Table 40: Yearly gross income of employed persons in 2005 (persons part of the EU-SILC longitudinal component)

Age	Total		
	percentile 25	Median	percentile 75
20-29	17,468	22,400	28,000
30-39	19,200	27,794	36,400
40-49	18,000	26,600	36,000
50-59	17,151	26,522	40,600
60-69	17,500	29,400	47,813

Age	Men		
	percentile 25	Median	percentile 75
20-29	20,160	23,800	30,800
30-39	24,500	31,500	39,200
40-49	24,331	30,800	41,905
50-59	22,800	33,600	47,600
60-69	29,400	46,070	47,813

Age	Women		
	percentile 25	Median	percentile 75
20-29	14,720	19,600	23,800
30-39	10,800	19,800	28,525
40-49	12,814	20,590	28,000
50-59	11,446	19,279	28,573
60-69	11,550	17,500	25,830

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 41: Gross yearly income of employed persons in 2005 (wage tax statistics)

Age	Total		
	percentile 25	Median	percentile 75
20-29	18,951	25,082	31,281
30-39	19,425	28,393	38,477
40-49	21,058	30,725	43,587
50-59	21,500	31,626	48,057
60-69	18,413	42,072	83,616

Age	Men		
	percentile 25	Median	percentile 75
20-29	22,742	27,692	34,232
30-39	26,719	33,706	44,744
40-49	28,122	36,787	50,878
50-59	27,637	37,369	55,494
60-69	28,939	56,504	95,805

Age	Women		
	percentile 25	Median	percentile 75
20-29	14,917	21,428	27,602
30-39	13,041	20,203	29,632
40-49	15,059	23,089	34,954
50-59	14,658	22,765	35,965
60-69	3,631	13,070	36,699

Source: Wage tax statistics

Table 42: Number of persons (in 1000s) employed for 12 month in 2005 (persons part of the EU-SILC longitudinal component)

Age	Total	Men	Women
20-29	432	238	194
30-39	758	455	303
40-49	805	420	385
50-59	456	255	200
60-69	30	21	9
Total	2,481	1,389	1,092

Source: EU-SILC longitudinal sample 2004, 2005, 2006

Table 43: Number of persons (in 1000s) employed for 12 month in 2005 (wage tax statistics)

Age	Total	Men	Women
20-29	482	259	222
30-39	750	411	340
40-49	752	390	362
50-59	369	217	153
60-69	15	10	4
Total	2,369	1,288	1,081

Source: Wage tax statistics