

# **Final Quality Report**

**relating to the**

**EU-SILC 2008 Operation**

**Denmark**

Copenhagen 2011

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## **1. COMMON LONGITUDINAL EUROPEAN UNION INDICATORS**

The micro data transmitted to Eurostat includes all longitudinal indicators as stipulated in the regulation.

## **2. ACCURACY**

### **2.1 Sample design**

#### **2.1.1 Type of sampling design (stratified, multi-stage, clustered)**

Denmark has adopted the 4-year rotational integrated design recommended by Eurostat. The sample is drawn as a sample of persons. The sub-samples are sampled by simple random sampling.

#### **2.1.2 Sampling units (one stage, two stages)**

The sample is a one stage sample. The sampling unit is the individual person (the selected person). The current household of the selected person is defined as the household of which the selected person is member at the beginning of the survey year (1 January). The sampling frame is all persons aged 13+ living in private households. Only households, where selected person are 16 or more at the beginning of the survey year, are surveyed.

#### **2.1.3 Stratification and substratification criteria**

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

#### **2.1.4 Sample size and allocation criteria**

Longitudinal Component 2008 is based on 4 subsamples (rotational groups) selected in 2005, 2006, 2007 and 2008 respectively. For each of the subsamples 2005 and 2006 2500 households have been selected. The 2007 and 2008 subsamples were enlarged to 3000 households. Not all of them are eligible cf. chapter 2.1.2

#### **2.1.5 Sample selection schemes**

Not applicable, since Denmark use simple random sampling.

#### **2.1.6 Sample distribution over time**

The sample is not distributed over time.

#### **2.1.7 Renewal of sample: rotational groups**

Longitudinal Component 2008 consisted of 3 sequences ending in 2008. One sequence covering 2005-2008, one sequence covering 2006-2008 and one sequence covering 2007-2008.

Table 2.1.7.a shows the composition of the 2008 cross-sectional sample, which is the basis of the longitudinal component. See also chapter 2.3.1.

<b>Table 2.1.7.a Renewal of the 2008 cross-sectional</b>					
	<i>Selected</i> 2005	<i>Selected</i> 2006	<i>Selected</i> 2007	<i>Selected</i> 2008	Total
Number initially selected	2500	2500	3000	3000	11000

## **2.1.8 Weightings**

### **2.1.8.1 Design Factor**

The design effect (or design factor) compares the variance of two different estimators. That is the actual estimator in use and a simple estimator exploiting no auxiliary information in the estimation. Thus the design effect indicates the loss/gain in precision as a consequence of the choice of estimator. A design effect below 1 indicates an improved estimator, whereas a design effect above 1 indicates a decrease in precision. In this case the actual estimator is the regression estimator and the auxiliary information in use is strongly correlated with variables in the survey. The design factor is 1.

### **2.1.8.2 Non-response Adjustments**

Calibration using external data.

### **2.1.8.3 Adjustments to external data**

The following variables have been used in the calibration:

- Sex
- Age
- Equivalised income group of household to which person belongs (3 classes: below ‘at risk of poverty threshold’, between ‘at risk of poverty threshold’ and median, above median), where the ‘at risk of poverty threshold’ is defined as 60% of the median of the equivalised income of all persons in the population.
- Poverty: Indication whether the household is below or above the ‘at risk of poverty threshold’.
- Net family income in household to which person belongs
- Type of family
- Highest level of education of person
- Highest education obtained (according to the register) of the person with the highest education in the household
- Economic status of person
- Economic status of person with highest education in the household

### **2.1.8.4 Final longitudinal weights**

Since the longitudinal sample consists only of households participating in the entire longitudinal period (2, 3 or 4 years) the weights are summing to a total less than the population. Hence the weights have been rescaled, that is adjusted to external population data.

### 2.1.9 Substitutions

No substitution.

#### 2.1.9.1 Method of selection of substitutes

No substitution.

#### 2.1.9.2 Main characteristics of substituted units.

No substitution.

#### 2.1.9.3 Distribution of substituted units by record of contact at address etc.

No substitution.

## 2.2 Sampling errors

Standard errors for the longitudinal part are not calculated.

As figures on imputed rent until 2005 is not comparable with figures from 2006 and onwards the values are declared not applicable (na).

Table 2.2.a.1: Mean, total number of observations (before and after imputation) and the standard error. Income variables reported at household level. The cross-sectional component 2008.				
	Weighted mean (Weight=DB090)	Number of observations		Standard error
		Before imputations	After imputations	
HY010: TOTAL HOUSEHOLD GROSS INCOME	428501	3291	3291	na
HY020: TOTAL DISPOSABLE HOUSEHOLD INCOME	279531	3291	3291	na
HY022: TOTAL DISPOSABLE HOUSEHOLD INCOME BEFORE SOCIAL TRANSFERS OTHER THAN OLDAGE AND SURVIVOR'S BENEFITS	238591	3291	3291	na
HY023: TOTAL DISPOSABLE HOUSEHOLD INCOME BEFORE SOCIAL TRANSFERS INCLUDING OLDAGE AND SURVIVOR'S BENEFITS	201037	3291	3291	na
HY025: WITHIN-HOUSEHOLD NON-RESPONSE INFLATION FACTOR	na	na	na	na
HY030G: IMPUTED RENT	na	na	na	na
HY040G: INCOME FROM	366	3291	3291	na

RENTAL OF A PROPERTY OR LAND				
HY050G: FAMILY/CHILDREN RELATED ALLOWANCES	5540	3291	3291	na
HY060G: SOCIAL EXCLUSION NOT ELSEWHERE CLASSIFIED	na	na	na	na
HY070G: HOUSING ALLOWANCES	3555	3291	3291	na
HY080G: REGULAR INTER-HOUSEHOLD CASH TRANSFER RECEIVED	873	3291	3291	na
HY090G: INTEREST, DIVIDENDS, PROFIT FROM CAPITAL INVESTMENTS IN UNINCORPORATED BUSINESS	9352	3291	3291	na
HY100G: INTEREST REPAYMENTS ON MORTGAGE	22759	3291	3291	na
HY110G: INCOME RECEIVED BY PEOPLE AGED UNDER 16	619	3291	3291	na
HY120G/HY120N: REGULAR TAXES ON WEALTH	4823	3291	3291	na
HY130G: REGULAR INTER-HOUSEHOLD CASH TRANSFER PAID	641	3291	3291	na
HY140G: TAX ON INCOME AND SOCIAL CONTRIBUTIONS	143506	3291	3291	na
HY145N: REPAYMENTS/RECEIPTS FOR TAX ADJUSTMENT	na	na	na	na

Table 2.2.a.2: Mean, total number of observations (before and after imputation) and the standard error. Income variables reported at personal level. The cross-sectional component 2008

	Weighted mean weight=PB050	Number of observations		Standard error
		Before imputations	After imputations	
PY010G: EMPLOYEE CASH OR NEAR CASH INCOME	181104	6554	6554	na
PY020G: NON-CASH EMPLOYEE INCOME	1012	6554	6554	na
PY030G: EMPLOYER'S SOCIAL INSURANCE CONTRIBUTION	na	na	na	na
PY035G: CONTRIBUTIONS TO INDIVIDUAL PRIVATE PENSION PLANS	na	na	na	na
PY050G: CASH BENEFITS OR LOSSES FROM SELF-EMPLOYMENT	13716	6554	6554	na
PY070G: VALUE OF GOODS PRODUCED BY OWN-CONSUMPTION	na	na	na	na
PY080G: PENSION FROM INDIVIDUAL PRIVATE PLANS	na	na	na	na
PY090G/PY090N: UNEMPLOYMENT BENEFITS	10730	6554	6554	na
PY100G/PY100N: OLD-AGE BENEFITS	29687	6554	6554	na
PY110G: SURVIVOR' BENEFITS	523	6554	6554	na
PY120G: SICKNESS BENEFITS	3568	6554	6554	na
PY130G: DISABILITY BENEFITS	11031	6554	6554	na
PY140G: EDUCATION-RELATED ALLOWANCES	2374	6554	6554	na
PY200G: GROSS MONTHLY EARNINGS FOR EMPLOYEES	na	na	na	na

Table 2.2.b.1: Mean, total number of observations (before and after imputation) and the standard error. Income variables reported at household level. The longitudinal component 2007

	Weighted mean (Weight=DB090)	Number of observations		Standard error
		Before imputations	After imputations	
HY010: TOTAL HOUSEHOLD GROSS INCOME	410234	3934	3934	na
HY020: TOTAL DISPOSABLE HOUSEHOLD INCOME	267480	3934	3934	na
HY022: TOTAL DISPOSABLE HOUSEHOLD INCOME BEFORE SOCIAL TRANSFERS OTHER THAN OLDAGE AND SURVIVOR'S BENEFITS	228244	3934	3934	na
HY023: TOTAL DISPOSABLE HOUSEHOLD INCOME BEFORE SOCIAL TRANSFERS INCLUDING OLDAGE AND SURVIVOR'S BENEFITS	195994	3934	3934	na
HY025: WITHIN-HOUSEHOLD NON-RESPONSE INFLATION FACTOR	na	na	na	na
HY030G: IMPUTED RENT	na	na	na	na
HY040G: INCOME FROM RENTAL OF A PROPERTY OR LAND	326	3934	3934	na
HY050G: FAMILY/CHILDREN RELATED ALLOWANCES	5667	3934	3934	na
HY060G: SOCIAL EXCLUSION NOT ELSEWHERE CLASSIFIED	na	na	na	na
HY070G: HOUSING ALLOWANCES	3575	3934	3934	na
HY080G: REGULAR INTER-HOUSEHOLD CASH TRANSFER RECEIVED	1073	3934	3934	na
HY090G: INTEREST, DIVIDENDS, PROFIT FROM CAPITAL INVESTMENTS IN UNINCORPORATED BUSINESS	8432	3934	3934	na
HY100G: REST REPAYMENTS ON MORTGAGE	17919	3934	3934	na
HY110G: INCOME RECEIVED BY PEOPLE AGED UNDER 16	552	3934	3934	na
HY120G/HY120N: REGULAR TAXES ON WEALTH	4501	3934	3934	na



HY130G: REGULAR INTER-HOUSEHOLD CASH TRANSFER PAID	698	3934	3934	na
HY140G: TAX ON INCOME AND SOCIAL CONTRIBUTIONS	137556	3934	3934	na
HY145N: REPAYMENTS/RECEIPTS FOR TAX ADJUSTMENT	na	na	na	na

Table 2.2.b.2: Mean, total number of observations (before and after imputation) and the standard error. Income variables reported at personal level. The longitudinal component 2007

	Weighted mean (Weight=PB050)	Number of observations		Standard error
		Before imputations	After imputations	
PY010G: EMPLOYEE CASH OR NEAR CASH INCOME	168940	7887	7887	na
PY020G: NON-CASH EMPLOYEE INCOME	952	7887	7887	na
PY030G: EMPLOYER'S SOCIAL INSURANCE CONTRIBUTION	na	na	na	na
PY035G: CONTRIBUTIONS TO INDIVIDUAL PRIVATE PENSION PLANS	na	na	na	na
PY050G: CASH BENEFITS OR LOSSES FROM SELF-EMPLOYMENT	14753	7887	7887	na
PY070G: VALUE OF GOODS PRODUCED BY OWN-CONSUMPTION	na	na	na	na
PY080G: PENSION FROM INDIVIDUAL PRIVATE PLANS	na	na	na	na
PY090G/PY090N: UNEMPLOYMENT BENEFITS	12539	7887	7887	na
PY100G/PY100N: OLD-AGE BENEFITS	27298	7887	7887	na
PY110G: SURVIVOR' BENEFITS	485	7887	7887	na
PY120G: SICKNESS BENEFITS	3350	7887	7887	na
PY130G: DISABILITY BENEFITS	9891	7887	7887	na
PY140G: EDUCATION-RELATED ALLOWANCES	2911	7887	7887	na
PY200G: GROSS MONTHLY EARNINGS FOR EMPLOYEES	na	na	na	na

Table 2.2.c.1: Mean, total number of observations (before and after imputation) and the standard error. Income variables reported at household level. The longitudinal component 2006

	Weighted mean (Weight=DB090)	Number of observations		Standard error
		Before imputations	After imputations	
HY010: TOTAL HOUSEHOLD GROSS INCOME	386554	2671	2671	na
HY020: TOTAL DISPOSABLE HOUSEHOLD INCOME	253786	2671	2671	na
HY022: TOTAL DISPOSABLE HOUSEHOLD INCOME BEFORE SOCIAL TRANSFERS OTHER THAN OLDAGE AND SURVIVOR'S BENEFITS	211306	2671	2671	na
HY023: TOTAL DISPOSABLE HOUSEHOLD INCOME BEFORE SOCIAL TRANSFERS INCLUDING OLDAGE AND SURVIVOR'S BENEFITS	181803	2671	2671	na
HY025: WITHIN-HOUSEHOLD NON-RESPONSE INFLATION FACTOR	na	na	na	na
HY030G: IMPUTED RENT	na	na	na	na
HY040G: INCOME FROM RENTAL OF A PROPERTY OR LAND	292	2671	2671	na
HY050G: FAMILY/CHILDREN RELATED ALLOWANCES	5638	2671	2671	na
HY060G: SOCIAL EXCLUSION NOT ELSEWHERE CLASSIFIED	na	na	na	na
HY070G: HOUSING ALLOWANCES	3653	2671	2671	na
HY080G: REGULAR INTER-HOUSEHOLD CASH TRANSFER RECEIVED	916	2671	2671	na
HY090G: INTEREST, DIVIDENDS, PROFIT FROM CAPITAL INVESTMENTS IN UNINCORPORATED BUSINESS	3330	2671	2671	na
HY100G: INTEREST REPAYMENTS ON MORTGAGE	16057	2671	2671	na
HY110G: INCOME RECEIVED BY PEOPLE AGED UNDER 16	537	2671	2671	na
HY120G/HY120N: REGULAR	4332	2671	2671	na

TAXES ON WEALTH				
HY130G: REGULAR INTER-HOUSEHOLD CASH TRANSFER PAID	824	2671	2671	na
HY140G: TAX ON INCOME AND SOCIAL CONTRIBUTIONS	127611	2671	2671	na
HY145N: REPAYMENTS/RECEIPTS FOR TAX ADJUSTMENT	na	na	na	na

Table 2.2.c.2: Mean, total number of observations (before and after imputation) and the standard error. Income variables reported at personal level. The longitudinal component 2006

	Weighted mean (Weight=PB050)	Number of observations		Standard error
		Before imputations	After imputations	
PY010G: EMPLOYEE CASH OR NEAR CASH INCOME	159441	5320	5320	na
PY020G: NON-CASH EMPLOYEE INCOME	858	5320	5320	na
PY030G: EMPLOYER'S SOCIAL INSURANCE CONTRIBUTION	na	na	na	na
PY035G: CONTRIBUTIONS TO INDIVIDUAL PRIVATE PENSION PLANS	na	na	na	na
PY050G: CASH BENEFITS OR LOSSES FROM SELF-EMPLOYMENT	13053	5320	5320	na
PY070G: VALUE OF GOODS PRODUCED BY OWN-CONSUMPTION	na	na	na	na
PY080G: PENSION FROM INDIVIDUAL PRIVATE PLANS	na	na	na	na
PY090G/PY090N: UNEMPLOYMENT BENEFITS	14436	5320	5320	na
PY100G/PY100N: OLD-AGE BENEFITS	25025	5320	5320	na
PY110G: SURVIVOR' BENEFITS	404	5320	5320	na
PY120G: SICKNESS BENEFITS	3846	5320	5320	na
PY130G: DISABILITY BENEFITS	10252	5320	5320	na
PY140G: EDUCATION-RELATED ALLOWANCES	2711	5320	5320	na
PY200G: GROSS MONTHLY EARNINGS FOR EMPLOYEES	na	na	na	na

Table 2.2.d.1: Mean, total number of observations (before and after imputation) and the standard error. Income variables reported at household level. The longitudinal component 2005

	Weighted mean (Weight=DB090)	Number of observations		Standard error
		Before imputations	After imputations	
HY010: TOTAL HOUSEHOLD GROSS INCOME	377664	1484	1484	na
HY020: TOTAL DISPOSABLE HOUSEHOLD INCOME	247048	1484	1484	na
HY022: TOTAL DISPOSABLE HOUSEHOLD INCOME BEFORE SOCIAL TRANSFERS OTHER THAN OLDAGE AND SURVIVOR'S BENEFITS	206636	1484	1484	na
HY023: TOTAL DISPOSABLE HOUSEHOLD INCOME BEFORE SOCIAL TRANSFERS INCLUDING OLDAGE AND SURVIVOR'S BENEFITS	181086	1484	1484	na
HY025: WITHIN-HOUSEHOLD NON-RESPONSE INFLATION FACTOR	na	na	na	na
HY030G: IMPUTED RENT	na	na	na	na
HY040G: INCOME FROM RENTAL OF A PROPERTY OR LAND	539	1484	1484	na
HY050G: FAMILY/CHILDREN RELATED ALLOWANCES	5258	1484	1484	na
HY060G: SOCIAL EXCLUSION NOT ELSEWHERE CLASSIFIED	na	na	na	na
HY070G: HOUSING ALLOWANCES	2768	1484	1484	na
HY080G: REGULAR INTER-HOUSEHOLD CASH TRANSFER RECEIVED	831	1484	1484	na
HY090G: INTEREST, DIVIDENDS, PROFIT FROM CAPITAL INVESTMENTS IN UNINCORPORATED BUSINESS	1385	1484	1484	na
HY100G: INTEREST REPAYMENTS ON MORTGAGE	17054	1484	1484	na
HY110G: INCOME RECEIVED PEOPLE AGED UNDER 16	683	1484	1484	na
HY120G/HY120N: REGULAR	4186	1484	1484	na

TAXES ON WEALTH				
HY130G: REGULAR INTER-HOUSEHOLD CASH TRANSFER PAID	687	1484	1484	na
HY140G: TAX ON INCOME AND SOCIAL CONTRIBUTIONS	125743	1484	1484	na
HY145N: REPAYMENTS/RECEIPTS FOR TAX ADJUSTMENT	na	na	na	na

Table 2.2.d.2: Mean, total number of observations (before and after imputation) and the standard error. Income variables reported at personal level. The longitudinal component 2005.

	Weighted mean (Weight=PB050)	Number of observations		Standard error
		Before imputations	After imputations	
PY010G: EMPLOYEE CASH OR NEAR CASH INCOME	160010	2943	2943	na
PY020G: NON-CASH EMPLOYEE INCOME	1025	2943	2943	na
PY030G: EMPLOYER'S SOCIAL INSURANCE CONTRIBUTION	na	na	na	na
PY035G: CONTRIBUTIONS TO INDIVIDUAL PRIVATE PENSION PLANS	na	na	na	na
PY050G: CASH BENEFITS OR LOSSES FROM SELF-EMPLOYMENT	12392	2943	2943	na
PY070G: VALUE OF GOODS PRODUCED BY OWN-CONSUMPTION	na	na	na	na
PY080G: PENSION FROM INDIVIDUAL PRIVATE PLANS	na	na	na	na
PY090G/PY090N: UNEMPLOYMENT BENEFITS	15724	2943	2943	na
PY100G/PY100N: OLD-AGE BENEFITS	21697	2943	2943	na
PY110G: SURVIVOR' BENEFITS	490	2943	2943	na
PY120G: SICKNESS BENEFITS	2648	2943	2943	na
PY130G: DISABILITY BENEFITS	9391	2943	2943	na
PY140G: EDUCATION-RELATED ALLOWANCES	2303	2943	2943	na
PY200G: GROSS MONTHLY EARNINGS FOR EMPLOYEES	na	na	na	na



Table 2.2.f: Mean, total number of observations (before and after imputation) and the standard error for the equivalised income by sex, age groups and household size. The cross-sectional component 2008

	Weighted mean (Weight=RB060)	Number of observations		Standard error
		Before imputations	After imputations	
Subclasses by household size				
1 house hold member	154055	739	739	na
2 house hold members	218615	4025	4025	na
3 house hold members	218847	1934	1934	na
4+ house hold members	203296	4513	4513	na
Population by age group				
< 25	186311	4084	4084	na
25 to 34	196549	850	850	na
35 to 44	217011	1223	1223	na
45 to 54	240908	1682	1682	na
55 to 64	231301	1853	1853	na
Population by sex				
Male	204218	5581	5581	na
Female	197361	5630	5630	na

Table 2.2.g: Mean, total number of observations (before and after imputation) and the standard error for the equivalised income by sex, age groups and household size. The longitudinal component 2007

	Weighted mean (Weight=RB060)	Number of observations		Standard error
		Before imputations	After imputations	
Subclasses by household size				
1 house hold member	155091	880	880	na
2 house hold members	220552	3175	3175	na
3 house hold members	221578	1889	1889	na
4+ house hold members	198218	4497	4497	na
Population by age group				
< 25	184174	4038	4038	na
25 to 34	190841	784	784	na
35 to 44	217315	1270	1270	na
45 to 54	245375	1586	1586	na
55 to 64	226703	1529	1529	na
Population by sex				
Male	203217	5163	5163	na
Female	194484	5278	5278	na

Table 2.2.h Mean, total number of observations (before and after imputation) and the standard error for the equivalised income by sex, age groups and household size The longitudinal component 2006

	Weighted mean (Weight=RB060)	Number of observations		Standard error
		Before imputations	After imputations	
Subclasses by household size				
1 house hold member	144028	572	572	na
2 house hold members	210746	1476	1476	na
3 house hold members	228272	951	951	na
4+ house hold members	198425	2531	2531	na
Population by age group				
< 25	183238	2293	2293	na
25 to 34	180752	455	455	na
35 to 44	210206	677	677	na
45 to 54	198888	865	865	na
55 to 64	143555	699	699	na
Population by sex				
Male	194400	2776	2776	na
Female	184869	2754	2754	na

Table 2.2.i Mean, total number of observations (before and after imputation) and the standard error for the equivalised income by sex, age groups and household size. The longitudinal component 2005

	Weighted mean (Weight=RB060)	Number of observations		Standard error
		Before imputations	After imputations	
Subclasses by household size				
1 house hold member	145506	295	295	na
2 house hold members	208475	702	702	na
3 house hold members	192882	321	321	na
4+ house hold members	179560	764	764	na
Population by age group				
< 25	155913	608	608	na
25 to 34	183490	262	262	na
35 to 44	189626	307	307	na
45 to 54	209268	318	318	na
55 to 64	200929	317	317	na
Population by sex				
Male	182516	1037	1037	na
Female	172706	1045	1045	na

## **2.3. Non-sampling errors**

### **2.3.1 Sampling frame and coverage errors**

The sample frame is persons aged 13+ living in private household according to the Register of Population Statistics of Statistics Denmark. The register is based on the Central Population Register (CPR). CPR is updated by the municipalities. The register is a continuously updated register.

Main coverage problems:

- persons living in a private household but registered in the register as living in a collective household at the time of selecting the sub-sample. This group will be under-covered in the sub-sample.
- persons, who after the sub-sample were selected, moved into a private Danish household from a collective household in Denmark or from abroad. This group will likewise be under-covered in the sub-sample:

In theory, these groups should be taken into consideration like persons between 13+ and 15+ at the time of sampling, cf. above, but technically it is difficult, and the number of persons involved is small. The number of new immigrants is on a yearly basis less than 1 pct. of the population and the number of persons living in collective households is about 1 pct., primarily persons living in old-age homes and homes for other people, who cannot take care of themselves.

If two persons from the same household are selected to a panel, one of them is dropped as a selected person. If a person, who belongs to a household from an earlier still active panel, is selected, the person is likewise dropped as a selected person. The situation, where a household is selected more than once, is only of theoretical interest. The practical importance is negligible.

### **2.3.2 Measurement and processing errors**

#### **2.3.2.1 Measurement errors**

The data comes from interviews or from registers. Income and demographic data primarily comes from registers, while social data primarily comes from interviews. The questionnaire does not include other questions than the SILC-questions. The questionnaire includes between 40 and 50 questions dependent on the type of household.

Interview-method was telephone interviewing when feasible and postal questionnaire for other households. The questionnaire was programmed in BLAISE. To obtain contact by telephone at least 5 calls was conducted. Households contacted by mail received one reminder, if they did not respond to the first letter.

The interviews were conducted by the interviewers of Statistics Denmark. In addition to their usual training and education, they got a special introduction to the SILC-questionnaire of 2 hours.

#### **2.3.2.2 Processing errors**

The questionnaire is programmed in BLAISE. Several entry controls are built into the questionnaire. The system for processing, checking and editing data is programmed in SAS. Finally, the files are transformed into Eurostat's standard format and tested using the checking program developed by Eurostat.

During the checking procedure errors are corrected.

### 2.3.3 Non-response errors

#### 2.3.3.1. Achieved sample size

Table 2.3.3.1a Achieved sample size				
	Total	Rotational group 2	Rotational group 3	Rotational group 4
<b>2004-2007</b>				
Accepted household interviews = accepted interviews of selected persons	912	912	na	na
Accepted personal interviews (total)	3779	3779	na	na
- sample persons	912	912	na	na
- co-residents	2867	2867		
<b>2005-2007</b>				
Accepted household interviews= accepted interviews of selected persons	1930	912	1018	na
Accepted personal interviews	6876	3140	3736	na
- sample persons	1930	912	1018	na
- co-residents	4946	2228	2718	na
<b>2006-2007</b>				
Accepted household interviews= accepted interviews of selected persons	3291	912	1018	1361
Accepted personal interviews	10150	2694	3044	4412
- sample persons	3291	912	1018	1361
co-residents	6859	1782	2026	3051

#### 2.3.3.2 Unit non-response

##### Households:

Wave response rate:

2005: 62.3

2006: 69.0

2007: 71.2

2008: 83.7

Longitudinal follow-up rate:

2005: 81.7

2006: 83.9  
 2007: 83.7  
 2008: na.

**Persons:**

Wave response rate, sample persons (same as households):

2005: 62,3  
 2006: 69,0  
 2007: 71,2  
 2008: 83,7

Wave response rate, co-residents

Can not be calculated as we do not have all information on not-participating households.

Longitudinal follow-up rate, sample persons (same as households):

2005: 81.7  
 2006: 83.9  
 2007: 83.7  
 2008: na.

Longitudinal follow-up rate, co-residents:

Can not be calculated as we do not have all information on not-participating households.

**2.3.3.3 Distribution of households**

2.3.3.3.a. Distribution of households by household status (DB110)				
	wave-2005	wave-2006	wave-2007	wave-2008
1	na	1319	2405	3550
2	na	122	200	305
3	na	1	2	0
4	na	4	6	8
5	na	5	8	14
6	na	0	0	0
7	na	33	50	57
8	na	0	0	0
9	2397	2385	2857	na

2.3.3.3.b Distribution of households by contact at address (DB120) where DB110 = 1,2,9				
	wave-2005	wave-2006	wave-2007	wave-2008
Total	2381	3826	5462	6694
11	2172	2222	2661	2670
21	3	14	11	9
22	206	271	385	465

2.3.3.3.c Distribution of households by (DB130) household questionnaire result where DB110 = 1,2,9				
DB130	wave-2005	wave-2006	wave-2007	wave-2008
11	1484	2671	3934	3291
21	244	347	387	180
22	41	58	68	44
23	69	90	81	41
24	334	375	596	299

2.3.3.3.d Distribution of households by (DB135) household questionnaire result by household interview acceptance where DB130=11.				
DB135	wave-2005	wave-2006	wave-2007	wave-2008
1	1484	2671	3934	3291
2	na	na	na	na

#### 2.3.3.4 Distribution of persons

Table 2.3.3.4 Distribution of persons by membership status (RB110).				
RB110	wave-2005	wave-2006	wave-2007	wave-2008
Total	3781	6878	10150	8455
1	3781	6745	9994	8180
2	na	0	0	0
3	na	99	92	178
4	na	34	64	97

#### 2.3.3.5 Item non-response

There is no item non-response for all the income variables as these variables are extracted from registers with full coverage.

Table 2.3.3.5.a: Percentage of households, who have received a specific income component				
	Wave 2005	Wave 2006	Wave 2007	Wave 2008
HY010: TOTAL HOUSEHOLD GROSS INCOME	100	100	100	100
HY020: TOTAL DISPOSABLE HOUSEHOLD INCOME	100	100	100	100
HY022: TOTAL DISPOSABLE HOUSEHOLD INCOME BEFORE SOCIAL TRANSFERS OTHER THAN OLDAGE	100	100	100	100

AND SURVIVOR'S BENEFITS				
HY023: TOTAL DISPOSABLE HOUSEHOLD INCOME BEFORE SOCIAL TRANSFERS INCLUDING OLDAGE AND SURVIVOR'S BENEFITS	100	100	100	100
HY025: WITHIN-HOUSEHOLD NON-RESPONSE INFLATION FACTOR	na	na	na	na
HY030G: IMPUTED RENT	70	69	74	74
HY040G: INCOME FROM RENTAL OF A PROPERTY OR LAND	3	2	3	3
HY050G: FAMILY/CHILDREN RELATED ALLOWANCES	38	38	39	38
HY060G: SOCIAL EXCLUSION NOT ELSEWHERE CLASSIFIED	0	0	0	0
HY070G: HOUSING ALLOWANCES	10	12	11	10
HY080G: REGULAR INTER-HOUSEHOLD CASH TRANSFER RECEIVED	6	6	6	5
HY090G: INTEREST, DIVIDENDS, PROFIT FROM CAPITAL INVESTMENTS IN UNINCORPORATED BUSINESS	99	99	99	100
HY100G: INTEREST REPAYMENTS ON MORTGAGE	61	59	59	61
HY110G: INCOME RECEIVED BY PEOPLE AGED UNDER 16	8	9	9	10
HY120G/HY120N: REGULAR TAXES ON WEALTH	72	73	74	77
HY130G: REGULAR INTER-HOUSEHOLD CASH TRANSFER PAID	4	4	4	4
HY140G: TAX ON INCOME AND SOCIAL CONTRIBUTIONS	100	99	100	100
HY145N: REPAYMENTS/RECEIPTS FOR TAX ADJUSTMENT	na	na	na	na

Table 2.3.3.5.b: Percentage of persons 16+, who have received a specific income component

	Wave 2005	Wave 2006	Wave 2007	Wave 2008
PY010G: EMPLOYEE CASH OR NEAR CASH INCOME	75	75	73	73
PY020G: NON-CASH EMPLOYEE INCOME	6	6	6	7
PY030G: EMPLOYER'S SOCIAL INSURANCE CONTRIBUTION	na	na	na	na
PY035G: CONTRIBUTIONS TO INDIVIDUAL PRIVATE PENSION PLANS	-	-	-	-
PY050G: CASH BENEFITS OR LOSSES FROM SELF-EMPLOYMENT	25	25	23	22
PY070G: VALUE OF GOODS PRODUCED BY OWN-CONSUMPTION	na	na	na	na
PY080G: PENSION FROM INDIVIDUAL PRIVATE PLANS	na	na	na	na
PY090G/PY090N: UNEMPLOYMENT BENEFITS	20	18	16	15
PY100G/PY100N: OLD-AGE BENEFITS	11	13	16	17
PY110G: SURVIVOR' BENEFITS	1	1	1	1
PY120G: SICKNESS BENEFITS	10	10	9	8

PY130G: DISABILITY BENEFITS	7	6	6	7
PY140G: EDUCATION-RELATED ALLOWANCES	7	7	6	6
PY200G: GROSS MONTHLY EARNINGS FOR EMPLOYEES	na	na	na	na

## 2.4 Mode of data collection

Denmark uses a sample of persons rather than a sample of addresses or households in the survey.

Table 2.4.a Distribution of household members aged 16 or over by 'data' status (RB250) and type of type of person..				
	Data-status = 13 (Data status is always = '13')			
	Wave-2005	Wave-2006	Wave-2007	Wave-2008
Total	2943	5320	7884	6554
Sample persons	1281	2510	3580	3010
Co-resident	1662	2810	4304	3544

Table 2.4.b Distribution of household members aged 16 or over by 'type of interview' (RB260) and type of type of person					
		Type of interview (RB260)			
		Total	3	4	5
Wave 2005	Total	2943	1437	79	1427
	Sample person	1281	755	46	480
	Co-resident	1662	682	33	947
Wave 2006	Total	5320	2592	125	2603
	Sample person	2510	1958	79	473
	Co-resident	2810	634	46	2130
Wave 2007	Total	7884	3806	194	3884
	Sample person	3580	2468	122	990
	Co-resident	4304	1338	72	2894
Wave 2008	Total	6554	3200	136	3218
	Sample person	3010	2108	90	812



	Co-resident	3544	1092	46	2406
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The establishment of the sample and the delimitation of the household are undertaken in the way described below.

A sample of persons is selected from the Central Population Register (CPR).

All other persons living at the same address are identified using information in the register. In the same way, married couples, couples not married, but expected to be partners, the ID's of fathers and mothers living at the address etc. is identified. In the following, the results will be called the "register-household". The register household can be considered as a hypothesis to be checked in the survey.

As a general rule, the selected person becomes the respondent of the household questionnaire, and therefore the person to be interviewed about the composition of the household, etc. The only exception is the case, where the selected person is under 25 years and has parents living at the address. In this case, we randomly select one of the parents to represent the household (the household respondent).

After the interview, a "statistical household" following Eurostat's definition is defined. Persons in the register-household, who do not belong to the statistical household, will be excluded from the sample and persons belonging to the statistical household, who are not found in the register-household are included.

As mentioned income and demographic data, including citizenship etc. primarily comes from registers, while social data primarily comes from interviews.

The questionnaire was split up into 4 different parts.

- a) Questions relating to defining households
- b) Questions about the household
- c) General questions about the household members
- d) Detailed questions about the selected person; including detailed labour information and health information

According to the instructions given to the interviewers, questions under a), b) and c) and if the selected person is the same as the selected household respondent also d), shall be asked the person in the household selected as household respondent if possible. If this person is unable to respond, e.g. is not at home or is busy with other things, it should be attempted to arrange an appointment to conduct an interview at another time. If such an appointment appears be difficult to obtain, it shall be attempted to achieve an interview with the spouse, if any. The interviewers are told to accept partners not married as proxies for the interview, if necessary, but that they should be very careful in doing so. Other members of the household should only be accepted as proxies in the worst case, e.g. if no other possibility is feasible.

Questions under d shall preferable be asked the selected person. If it is not feasible, because the person is not home or is busy with other things, the instruction is that a proxy interview with one of the parents is OK.

It is our experience that this procedure is the most feasible. It makes the interview more fluent and comfortable. Interviewing each household member individually instead of one household member on behalf of the others would be a troublesome process to the interviewers as well as to the interviewees.

It must be taken into account, that information on income and many other subjects is information extracted from registers, and therefore was not included in the questionnaire.

## **2.5 Imputation procedures**

No imputations. Income information is extracted from registers.

## **2.6 Imputed rent**

Until 2006 imputed rent for dwellings owned by the occupant was, in principle, calculated as 4% of the taxable value of the property in our national income statistics and in the micro-files that we transmit to Eurostat. The taxable value is a relatively good estimate of the market value. The properties are valued by the municipalities. From 2007 and onwards imputed rent is calculated using a rental equivalence method. Figures until 2006 is not comparable with figures from 2007 and onwards, where the variable became obligatory.

## **2.7 Company cars**

Information about company cars is extracted from the tax authorities registers as the taxable value.

# **3. COMPARABILITY**

## **3.1 Basic concepts and definitions**

### ***Reference population:***

Private households residing in Denmark 1 January 2008 and members of these households.  
No difference from EU-SILC concept

### ***Private household definition:***

No difference from EU-SILC concept.

### ***Household membership:***

No difference from EU-SILC concept.

### ***Income reference period(s) used:***

Calendar year 2007

### ***Period for taxes on income and social insurance contributions:***

Calendar year 2007

### ***Reference period for taxes on wealth:***

Calendar year 2007

### ***Lag between the income reference period and current variables:***

4-6 months

### ***Total duration of the data collection of the sample:***

6 months

***Information on activity status during the income reference period:***

Calendar year 2007

### **3.2 Components of income**

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

HY090G can be negative .

The concept is calculated as a net-concept. E.g. interest received from bank accounts etc. are deducted interest paid on consumer loans etc. If interest paid exceeds capital income HY090 will be negative

HY080G/HY080N: REGULAR INTER-HOUSEHOLD CASH TRANSFER RECEIVED/

HY130G/HY130N: REGULAR INTER-HOUSEHOLD CASH TRANSFER PAID

Only information about transfers known by authorities are included. Typically obligatory transfers and transfers for which tax-deductions can be obtained. Other forms of regularly transfers are not common in Denmark. In the 2003 and 2004 survey we had some questions about voluntary transfers, but the incidences was low and data quality was bad, so we decided not to use the data.

Apart from these facts only insignificant deviations from EUSILC 065.

#### **3.2.2 The source or procedure used for the collection of income variables**

*First wave:*

The variables concerning income, wealth and taxes are monitored by registers.

The most important source is the registers of the tax authorities. These registers contain information on all kinds of taxable income and on all kinds of taxes. In addition to information used for taxation purposes, the register contains specified information reported by municipalities on social assistance, housing allowances, disability benefits, sickness benefits etc. and on the originator's number in the Central Business Register.

Almost all income in Denmark is taxable. The only exceptions of any importance are child allowances, housing allowances and supplementary payments to the disabled and the like. The municipalities report information about these forms of income to the Tax Authorities or directly to Statistics Denmark that then will integrate the information in the statistical income register..

Information about the number of days for which the taxpayer received benefits according to different social, unemployment and training schemes are submitted to Statistics Denmark by municipalities and other authorities. The information is located in the so-called Labour Market Policy Measures Register and is used, when the different kinds of benefits from unemployment funds, trade unions etc. are split up into the different income components.

Income in the form of regular pension from private schemes and allowances from the State Education Fund's can be distinguished and broken down by components, using information about the kind of income in the tax authorities' registers and about the originator of the income from the Central Business Register and the age of the person.

Information about the amount of unemployment benefit payments can be extracted from a special register.

Information from these different sources makes it possible to estimate the breakdown of gross income by the components with a high degree of accuracy.

*Following waves: Unchanged*

### **3.2.3 The form in which income variables at component level has been obtained.**

Income components were collected gross.

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

They were collected gross.

## **3.3 Tracing rules**

Tracing was conducted using the personal number in the population register. In principle there is no difference from national rules and the standard EU-rules.

## **4 COHERENCE**

### **4.1 Comparison of income variables with external sources**

All income target variables are monitored using external sources.