

INTERMEDIATE QUALITY REPORT

Cross-Sectional Survey 2009

ITALY

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1. COMMON CROSS-SECTIONAL EUROPEAN UNION INDICATORS

1.1. Common cross-sectional EU indicators based on the cross-sectional component of EU-SILC

In the following tables the overarching indicators, the social inclusion indicators and the pensions indicators are reported.

Portfolio of Overarching Indicators calculated from SILC

[OV-1] At-risk-of-poverty threshold (illustrative values)

Household type	currency	2009
A1 (Single person)	EUR	9382.3
	NAC	9382.3
	PPS	8886.6
A2_2CH_LT14 (Two adults with two children younger than 14 years)	EUR	19702.8
	NAC	19702.8
	PPS	18661.8

[OV-1a] At-risk-of-poverty rate (by age and gender)

age	sex	unit	2009
TOTAL	T	1000PERS	11076.7
		PC_POP	18.4
	M	1000PERS	4967.6
		PC_POP	17
	F	1000PERS	6109.2
		PC_POP	19.8
Y18-64	T	1000PERS	6148.3
		PC_POP	16.4
	M	1000PERS	2840.9
		PC_POP	15.2
	F	1000PERS	3307.4
		PC_POP	17.6
Y_GE65	T	1000PERS	2360.8
		PC_POP	19.6
	M	1000PERS	800.5
		PC_POP	15.8
	F	1000PERS	1560.3
		PC_POP	22.4
Y_LT18	T	1000PERS	2567.6
		PC_POP	24.4

[OV-1b] Relative median at-risk-of-poverty gap (by age and gender)

age	sex	2009
TOTAL	T	22.6
	M	22.4
	F	22.9
Y18-64	T	25.4
	M	23.7
	F	27
Y_GE65	T	17.5
	M	15.1
	F	18.6
Y_LT18	T	23.9

[OV-9] At-risk-of-poverty rate anchored at a fixed moment in time (2005) (by age and gender)

age	sex	2009
TOTAL	T	18.3q
	M	16.9q
	F	19.6q
Y18-64	T	16.2q
	M	15.1q
	F	17.4q
Y_GE65	T	19.6q
	M	15.8q
	F	22.3q
Y_LT18	T	24.2q

[OV-11] In-work at-risk-of-poverty rate (by gender)

sex	2009
T	10.2
M	11.8
F	7.9

[OV-2] Inequality of income distribution S80/S20 income quintile share ratio

	2009
S80_S20	5.2

[OV-7a] Relative median income ratio

indic_il	2009
R_GE65_LT65 (Persons aged 65 years and over compared to persons aged less than 65 years)	0.89

[OV-7b] Aggregate replacement ratio

indic_il	sex	2009
R_PN_WK (Ratio of income from pensions of persons aged between 65 and 74 years and income from work of persons aged between 50 and 59 years)	T	0.51
	M	0.58
	F	0.41

[OV-C11] At-risk-of-poverty rate before social transfers (by age and gender)

age	sex	2009
TOTAL	T	42.7
	M	39.4
	F	45.8
Y18-64	T	32.3
	M	29.9
	F	34.7
Y_GE65	T	82.9
	M	81.0
	F	84.3
Y_LT18	T	33.8

Streamlined Social Inclusion Portfolio: Social Inclusion indicators calculated from EU-SILC

[SI-P1] At-risk-of-poverty threshold (illustrative values)

Household type	currency	2009
A1 (Single person)	EUR	9382.3
	NAC	9382.3
	PPS	8886.6
A2_2CH_LT14 (Two adults with two children younger than 14 years)	EUR	19702.8
	NAC	19702.8
	PPS	18661.8

[SI-P1a] At-risk-of-poverty rate, by gender and selected age groups

age	sex	2009
TOTAL	T	18.4
	M	17
	F	19.8
Y18-64	T	16.4
	M	15.2
	F	17.6
Y_GE65	T	19.6
	M	15.8
	F	22.4
Y_LT18	T	24.4

[SI-P3] Relative median at-risk-of-poverty gap, by age and gender

age	Sex	2009
TOTAL	T	22.6
	M	22.4
	F	22.9
Y18-64	T	25.4
	M	23.7
	F	27
Y_GE65	T	17.5
	M	15.1
	F	18.6
Y_LT18	T	23.9

[SI-P8] % of pop lacking at least 3 items in the economic strain and durables dimension by age, gender and at-risk-of-poverty status

age	sex	incgrp	unit	n_item	2009
TOTAL	T	A_MD60	1000PERS	GE3	5359.9
		A_MD60	1000PERS	GE4	1991.5
		A_MD60	PC_POP	GE3	10.9
		A_MD60	PC_POP	GE4	4.1
		B_MD60	1000PERS	GE3	4011.5
		B_MD60	1000PERS	GE4	2219.3
		B_MD60	PC_POP	GE3	36.2
		B_MD60	PC_POP	GE4	20
		TOTAL	1000PERS	GE3	9371.4
		TOTAL	1000PERS	GE4	4210.8
		TOTAL	PC_POP	GE3	15.6
		TOTAL	PC_POP	GE4	7
	M	A_MD60	1000PERS	GE3	2629
		A_MD60	1000PERS	GE4	960
		A_MD60	PC_POP	GE3	10.8
		A_MD60	PC_POP	GE4	4
		B_MD60	1000PERS	GE3	1829.9
		B_MD60	1000PERS	GE4	1005
		B_MD60	PC_POP	GE3	36.8
		B_MD60	PC_POP	GE4	20.2
		TOTAL	1000PERS	GE3	4458.9
		TOTAL	1000PERS	GE4	1965.1
		TOTAL	PC_POP	GE3	15.2
		TOTAL	PC_POP	GE4	6.7
	F	A_MD60	1000PERS	GE3	2730.9
		A_MD60	1000PERS	GE4	1031.5
		A_MD60	PC_POP	GE3	11
		A_MD60	PC_POP	GE4	4.2
		B_MD60	1000PERS	GE3	2181.7
		B_MD60	1000PERS	GE4	1214.3
		B_MD60	PC_POP	GE3	35.7
		B_MD60	PC_POP	GE4	19.9
		TOTAL	1000PERS	GE3	4912.5

age	sex	incgrp	unit	n_item	2009
		TOTAL	1000PERS	GE4	2245.8
		TOTAL	PC_POP	GE3	15.9
		TOTAL	PC_POP	GE4	7.3
Y18-64	T	A_MD60	1000PERS	GE3	3459.1
		A_MD60	1000PERS	GE4	1279
		A_MD60	PC_POP	GE3	11
		A_MD60	PC_POP	GE4	4.1
		B_MD60	1000PERS	GE3	2389
		B_MD60	1000PERS	GE4	1370.6
		B_MD60	PC_POP	GE3	38.9
		B_MD60	PC_POP	GE4	22.3
		TOTAL	1000PERS	GE3	5848.1
		TOTAL	1000PERS	GE4	2649.6
		TOTAL	PC_POP	GE3	15.6
		TOTAL	PC_POP	GE4	7.1
	M	A_MD60	1000PERS	GE3	1773.8
		A_MD60	1000PERS	GE4	666.4
		A_MD60	PC_POP	GE3	11.2
		A_MD60	PC_POP	GE4	4.2
		B_MD60	1000PERS	GE3	1101.6
		B_MD60	1000PERS	GE4	622.5
		B_MD60	PC_POP	GE3	38.8
		B_MD60	PC_POP	GE4	21.9
		TOTAL	1000PERS	GE3	2875.4
		TOTAL	1000PERS	GE4	1289
		TOTAL	PC_POP	GE3	15.4
		TOTAL	PC_POP	GE4	6.9
	F	A_MD60	1000PERS	GE3	1685.3
		A_MD60	1000PERS	GE4	612.6
		A_MD60	PC_POP	GE3	10.8
		A_MD60	PC_POP	GE4	3.9
		B_MD60	1000PERS	GE3	1287.3
		B_MD60	1000PERS	GE4	748
		B_MD60	PC_POP	GE3	38.9
		B_MD60	PC_POP	GE4	22.6
		TOTAL	1000PERS	GE3	2972.7
		TOTAL	1000PERS	GE4	1360.6
		TOTAL	PC_POP	GE3	15.8
		TOTAL	PC_POP	GE4	7.2
Y_GE65	T	A_MD60	1000PERS	GE3	913
		A_MD60	1000PERS	GE4	375.2
		A_MD60	PC_POP	GE3	9.5
		A_MD60	PC_POP	GE4	3.9
		B_MD60	1000PERS	GE3	647.3
		B_MD60	1000PERS	GE4	308.1
		B_MD60	PC_POP	GE3	27.4
		B_MD60	PC_POP	GE4	13.1

age	sex	incgrp	unit	n_item	2009
		TOTAL	1000PERS	GE3	1560.3
		TOTAL	1000PERS	GE4	683.3
		TOTAL	PC_POP	GE3	13.0
		TOTAL	PC_POP	GE4	5.7
	M	A_MD60	1000PERS	GE3	361.2
		A_MD60	1000PERS	GE4	132.2
		A_MD60	PC_POP	GE3	8.5
		A_MD60	PC_POP	GE4	3.1
		B_MD60	1000PERS	GE3	218.3
		B_MD60	1000PERS	GE4	118
		B_MD60	PC_POP	GE3	27.3
		B_MD60	PC_POP	GE4	14.7
		TOTAL	1000PERS	GE3	579.5
		TOTAL	1000PERS	GE4	250.3
		TOTAL	PC_POP	GE3	11.5
		TOTAL	PC_POP	GE4	5.0
	F	A_MD60	1000PERS	GE3	551.8
		A_MD60	1000PERS	GE4	242.9
		A_MD60	PC_POP	GE3	10.2
		A_MD60	PC_POP	GE4	4.5
		B_MD60	1000PERS	GE3	429
		B_MD60	1000PERS	GE4	190.1
		B_MD60	PC_POP	GE3	27.5
		B_MD60	PC_POP	GE4	12.2
		TOTAL	1000PERS	GE3	980.8
		TOTAL	1000PERS	GE4	433
		TOTAL	PC_POP	GE3	14.1
		TOTAL	PC_POP	GE4	6.2
Y_LT18	T	A_MD60	1000PERS	GE3	987.8
		A_MD60	1000PERS	GE4	337.3
		A_MD60	PC_POP	GE3	12.4
		A_MD60	PC_POP	GE4	4.2
		B_MD60	1000PERS	GE3	975.2
		B_MD60	1000PERS	GE4	540.6
		B_MD60	PC_POP	GE3	38.0
		B_MD60	PC_POP	GE4	21.1
		TOTAL	1000PERS	GE3	1963
		TOTAL	1000PERS	GE4	877.9
		TOTAL	PC_POP	GE3	18.6
		TOTAL	PC_POP	GE4	8.3

[SI-S1] At-risk-of-poverty rate, by age and gender

age	sex	2009
TOTAL	T	18.4
	M	17.0
	F	19.8
Y18-24	T	21.6
	M	20.0
	F	23.1
Y25-49	T	16.9
	M	15.6
	F	18.2
Y50-64	T	13.4
	M	12.5
	F	14.3
Y_GE65	T	19.6
	M	15.8
	F	22.4
Y_LT18	T	24.4

[SI-S1a] At-risk-of-poverty rate, by household type

Household type	2009
TOTAL	18.4
HH_NDCH (Households without dependent children)	15.1
A1_LT64 (One adult younger than 64 years)	20.8
A1_GE65 (One adult older than 65 years)	30.8
A1F (Single female)	31.1
A1M (Single male)	18.2
A2_2LT65 (Two adults younger than 65 years)	10.0
A2_GE1_GE65 (Two adults, at least one aged 65 years and over)	15.7
A_GE3 (Three or more adults)	9.4
HH_DCH (Households with dependent children)	21.8
A1_DCH (Single parent with dependent children)	35.3
A2_1DCH (Two adults with one dependent child)	14.6
A2_2DCH (Two adults with two dependent children)	20.6
A2_GE3DCH (Two adults with three or more dependent children)	39.4
A_GE3_DCH (Three or more adults with dependent children)	21.0

[SI-S1b] At-risk-of-poverty rate, by work intensity of the household and by gender and selected age

Age	sex	Household type	Household Work intensity	2009
TOTAL	T	HH_NDCH (Households without dependent children)	MAXWORK	5.4
			SOMEWORK	10.2
			NONEWORK	28.4
		HH_DCH (Households with dependent children)	MAXWORK	6.7
			SOMEGE05	26.8
			SOMELT05	50.7
			NONEWORK	59.5
	M	HH_NDCH (Households without dependent children)	MAXWORK	5.2
			SOMEWORK	10.0

Age	sex	Household type	Household Work intensity	2009
			NONEWORK	25.9
		HH_DCH (Households with dependent children)	MAXWORK	6.2
			SOMEGE05	26.6
			SOMELT05	51.3
			NONEWORK	56.4
	F	HH_NDCH (Households without dependent children)	MAXWORK	5.7
			SOMEWORK	10.4
			NONEWORK	30.6
		HH_DCH (Households with dependent children)	MAXWORK	7.2
			SOMEGE05	27.0
			SOMELT05	50.1
			NONEWORK	61.9
Y18-64	T	HH_NDCH (Households without dependent children)	MAXWORK	5.9
			SOMEWORK	10.3
			NONEWORK	30.0
		HH_DCH (Households with dependent children)	MAXWORK	6.3
			SOMEGE05	24.2
			SOMELT05	47.2
			NONEWORK	54.4
	M	HH_NDCH (Households without dependent children)	MAXWORK	5.7
			SOMEWORK	10.2
			NONEWORK	29.0
		HH_DCH (Households with dependent children)	MAXWORK	5.4
			SOMEGE05	23.6
			SOMELT05	48.4
			NONEWORK	50.6
	F	HH_NDCH (Households without dependent children)	MAXWORK	6.3
			SOMEWORK	10.3
			NONEWORK	30.6
		HH_DCH (Households with dependent children)	MAXWORK	7.0
			SOMEGE05	24.9
			SOMELT05	46.0
			NONEWORK	56.8
Y_GE65	T	HH_NDCH (Households without dependent children)	MAXWORK	3.1
			SOMEWORK	9.4
			NONEWORK	23.9
		HH_DCH (Households with dependent children)	MAXWORK	1.9
			SOMEGE05	14.6
			SOMELT05	41.0
			NONEWORK	42.6
	M	HH_NDCH (Households without dependent children)	MAXWORK	2.4
			SOMEWORK	8.3
			NONEWORK	20.5
		HH_DCH (Households with dependent children)	MAXWORK	2.9
			SOMEGE05	15.7
			SOMELT05	43.4

Age	sex	Household type	Household Work intensity	2009
			NONEWORK	32
	F	HH_NDCH (Households without dependent children)	MAXWORK	3.5
			SOMEWORK	11.1
			NONEWORK	30.8
		HH_DCH (Households with dependent children)	MAXWORK	1.2
			SOMEGE05	14.0
			SOMELO05	37.6
			NONEWORK	55.9
Y_LT18	T	HH_NDCH (Households without dependent children)	MAXWORK	.
			SOMEWORK	.
			NONEWORK	.
		HH_DCH (Households with dependent children)	MAXWORK	7.6
			SOMEGE05	31.6
			SOMELO05	61.1
			NONEWORK	72.8

[SI-S1c] At-risk-of-poverty rate, by most frequent activity status and by gender

Most frequent activity status	sex	2009
EMP (Employment)	T	10.2
	M	11.8
	F	7.9
NOT_EMP (Non employment)	T	23.4
	M	20.1
	F	25.3
UNE (Unemployment)	T	40.8
	M	45.3
	F	36.7
RETIR (Retired)	T	13.7
	M	13.4
	F	14.1
INACT_OTH (Inactive population - Other)	T	27.6
	M	22.8
	F	28.8

[SI-S1d] At-risk-of-poverty rate, by accommodation tenure status and by gender and selected age groups

Age	sex	Accommodation tenure status	2009
TOTAL	T	OWNER	15.6
		RENT	30.8
	M	OWNER	14.2
		RENT	29.1
	F	OWNER	16.9
		RENT	32.5
Y18-64	T	OWNER	13.3
		RENT	28.9
	M	OWNER	12.4
		RENT	26.2
	F	OWNER	14.2

Age	sex	Accommodation tenure status	2009
		RENT	31.6
Y_GE65	T	OWNER	19.2
		RENT	22.8
	M	OWNER	15.5
		RENT	18.6
	F	OWNER	21.9
		RENT	25.3
Y_LT18	T	OWNER	19.3
		RENT	42.8

[SI-S1e] Dispersion around the at-risk-of-poverty threshold [by gender and selected age group]

indic_il	age	sex	2009
LI_R_MD40	TOTAL	T	6.7
		M	6.1
		F	7.3
	Y18-64	T	6.7
		M	5.8
		F	7.6
	Y_GE65	T	4.0
		M	3.4
		F	4.4
	Y_LT18	T	9.8
LI_R_MD50	TOTAL	T	11.5
		M	10.4
		F	12.6
	Y18-64	T	10.6
		M	9.6
		F	11.6
	Y_GE65	T	10.4
		M	7.4
		F	12.5
	Y_LT18	T	16.0
LI_R_MD70	TOTAL	T	26.3
		M	24.4
		F	28.1
	Y18-64	T	23.6
		M	21.8
		F	25.4
	Y_GE65	T	27.7
		M	23.9
		F	30.5
	Y_LT18	T	34.3

[SI-S4] Mean number of items lacked by persons considered as deprived in the 'economic strain and durables' dimension by age, gender and at-risk-of-poverty status

age	sex	incgrp	2009
TOTAL	T	A_MD60	3.5
		B_MD60	3.9
		TOTAL	3.7
	M	A_MD60	3.5
		B_MD60	3.9
		TOTAL	3.7
	F	A_MD60	3.5
		B_MD60	3.9
		TOTAL	3.7
Y18-64	T	A_MD60	3.5
		B_MD60	3.9
		TOTAL	3.7
	M	A_MD60	3.5
		B_MD60	3.9
		TOTAL	3.7
	F	A_MD60	3.5
		B_MD60	3.9
		TOTAL	3.7
Y_GE65	T	A_MD60	3.6
		B_MD60	3.7
		TOTAL	3.6
	M	A_MD60	3.5
		B_MD60	3.9
		TOTAL	3.6
	F	A_MD60	3.6
		B_MD60	3.7
		TOTAL	3.6
Y_LT18	T	A_MD60	3.5
		B_MD60	3.9
		TOTAL	3.7

[SI-C1] Inequality of income distribution S80/S20 income quintile share ratio

	2009
S80_S20	5.2

[SI-C2] Inequality of income distribution Gini coefficient

indic_il	2009
GINI	31.5

[SI-C5] At-risk-of-poverty rate anchored at a fixed moment in time (2005) (by age and gender)

age	sex	2009
TOTAL	T	18.3
	M	16.9
	F	19.6
Y18-64	T	16.2
	M	15.1
	F	17.4

age	sex	2009
Y_GE65	T	19.6
	M	15.8
	F	22.3
Y_LT18	T	24.2

[SI-C6] At-risk-of-poverty rate before social transfers, by gender and selected age groups (except pensions)

age	sex	2009
TOTAL	T	23.2
	M	21.8
	F	24.5
Y18-64	T	21.3
	M	20.0
	F	22.7
Y_GE65	T	21.5
	M	18.1
	F	24.0
Y_LT18	T	31.8

[SI-C8] In-work at-risk-of-poverty rate (by full-time/part-time work)

break_il	2009
FULLTIME	8.9
PARTTIME	14.7

Portfolio of Pension Indicators calculated from SILC - Adequacy of pensions

[PN-P1] At-risk-of-poverty rate of older people

age	sex	2009
Y_GE65	T	19.6
	M	15.8
	F	22.4
Y_LT65	T	18.1
	M	17.2
	F	19.0

[PN-P2] Relative median income ratio of elderly people (65+)

indic_il	sex	2009
R_GE65_45TO54 (Persons aged 65 years and over compared to persons aged between 45 and 54 years)	T	0.83
	M	0.89
	F	0.80

[PN-P3] Aggregate replacement ratio

indic_il	sex	2009
R_PN_WK (Ratio of income from pensions of persons aged between 65 and 74 years and income from work of persons aged between 50 and 59 years)	T	0.51
	M	0.58
	F	0.41

[PN-S1] At-risk-of-poverty rate of older people

age	sex	2009
Y_GE60	T	18.3
	M	14.8
	F	21.0
Y_GE75	T	21.3
	M	16.9
	F	24.0
Y_LT60	T	18.5
	M	17.6
	F	19.3
Y_LT75	T	18.1
	M	17.0
	F	19.2

[PN-S2] Relative median income ratio of elderly people (60+)

indic_il	sex	2009
R_GE60_45TO54 (Persons aged 60 years and over compared to persons aged between 45 and 54 years)	T	0.87
	M	0.93
	F	0.83

[PN-S4] Inequality of income distribution S80/S20 income quintile share ratio

age	2009
Y_GE65	4.7
Y_LT65	5.4

[PN-S5] Relative median at-risk-of-poverty gap of elderly people

age	sex	2009
Y_GE65	T	17.5
	M	15.1
	F	18.6
Y_GE75	T	16.5
	M	12.4
	F	18.0

[PN-S6] At-risk-of-poverty rate for pensioners

	sex	2009
RETIR (Retired)	T	13.7
	M	13.4
	F	14.1

[PN-S7] At-risk-of-poverty rate of older people by accommodation tenure status

age	accomodation tenure status	2009
Y_GE60	OWNER	17.6
	RENT	23.2
Y_GE65	OWNER	19.2
	RENT	22.8
Y_GE75	OWNER	21.0
	RENT	23.8

[PN-S8] Dispersion around the at-risk-of-poverty threshold

indic_il	age	2009
LI_R_MD50 (At risk of poverty rate 50% median)	Y_GE60	9.9
	Y_GE65	10.4
	Y_GE75	10.5
LI_R_MD70 (At risk of poverty rate 70% median)	Y_GE60	26.0
	Y_GE65	27.7
	Y_GE75	30.0

[PN-P9] Gender differences in the at-risk-of-poverty rate of older people

indic_il	age	2009
A1 (Single person)	Y_GE65	-11.2
	Y_LT65	-10.2

[PN-P10] Gender differences in the relative median income ratio of older people

Household type	indic_il	2009
A1 (Single person)	R_GE65_LT65 (Persons aged 65 years and over compared to persons aged less than 65 years)	0.05

[PN-S11] Gender differences in the relative median income ratio of older people

Household type	indic_il	2009
A1 (Single person)	R_GE60_LT60 (Persons aged 60 years and over compared to persons aged less than 60 years)	0.11
	R_GE75_LT75 (Persons aged 70 years and over compared to persons aged less than 75 years)	-0.02

2. ACCURACY

2.1. Sampling design

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

Two stage sampling design: The first stage units (or primary sampling units PSU) are the municipalities, the second stage units (SSU) are the households.

The PSU are stratified according to their size in terms of number of residents. Stratification is carried out inside each administrative region. Four municipalities are selected in each strata.

Use of clustering:

Municipalities are clusters of households, households are clusters of individuals.

2.1.2 Sampling units (one stage, two stages)

Primary sampling units are the municipalities.

Secondary sampling units are the households selected from municipalities' registers with systematic sampling and not selected with PPS.

Sample size (number of SSU)	Number of PSU	Number of SSU (Total)	Avarage number of SSU for each PSU
<25	614	8671	14.1
26-50	238	7408	31.1
51-75	25	1480	59.2
76-100	5	433	86.6
101-250	10	1521	152.1
>250	2	979	489.5
Total	894	20492	22.9

2.1.3 Stratification and sub-stratification criteria

Stratification of primary sampling units by the number of inhabitants so that the total number of inhabitants in each stratum is approximately constant (this guarantees self-weighting design in each region).

Municipalities which sizes are higher than a threshold are self-representing units i.e. are strata themselves and included with certainty in the sample of PSU.

Secondary sampling units are not stratified.

2.1.4 Sample size and allocation criteria

Sample size have been determined on the basis of expected deff reported in table 1 for macroregions (North, Centre, South). Data of ECHP for years 1995-1999, have been the basis for the evaluation of deff, results on income and poverty have been averaged over the 5 available years. National intra-classes correlation coefficient inside households, ρ_{SR} , and inside municipality, ρ_{NSR} , have been estimated on the basis of the above averages; then following formula to evaluate *deff* has been applied:

$$deff_r = \frac{n_r}{N_r^2} \left\{ \frac{N_r^2}{n_{rSR}} \left(1 + \rho_{SR} (\bar{b}_{rSR} - 1) \right) + \frac{N_r^2}{n_{rNSR}} \left(1 + \rho_{NSR} (\bar{b}_{rNSR} - 1) \right) \right\}$$

where n_r and N_r are sample and population dimension of administrative regions, \bar{b}_{rSR} is the average household dimension and \bar{b}_{rNSR} is the average number of individuals selected in each municipalities.

On the basis of survey on income of year 2003, the following response rates have been estimated:

- T(reg) for regions by municipality type (municipality type: metropolitan, over 50.000 residents and others);
- T(mr) for macro-regions by municipality type.

Then to smooth the estimates, $T(c) = 0.25 * T(reg) + 0.75 * T(mr)$, has been applied to inflate the achivied sample size so that

$$n(\text{sel})=n(\text{ach}) / T(c).$$

The sample inside macro-regions has been allocated by means of a generalized version (Falorsi et al, 1998 and Falorsi e Russo, 2003.) of Bethel methods (Bethel 1989), with iterative procedure that re-calculate at each step deff and sampling dimensions to satisfy given requirements.

Allocation inside regions averaging proportional and uniform allocation.

Table 1

Macroregions	Deft income	Deft poverty	Deff income	Deff poverty
1	2.64	1.59	6.97	2.54
2	2.26	1.43	5.09	2.05
3	2.69	1.61	7.24	2.61
Italy	2.61	1.58	6.84	2.50

2.1.5 Sample selection schemes

PSU are selected with probability proportional to their size (number of residents) by means of systematic sampling method by Madow (1949) inside each stratum.

Households are selected with equal probability by systematic sampling in each selected municipality from municipality-registers.

2.1.6 Sample distribution over the time

The sample is not distributed over time.

2.1.7 Renewal of sample: Rotational groups

Rotational design is used for households; the whole sample is composed of four rotational groups. Each group is included in the sample for four waves of the survey. Each year one fourth of the sample is renewed, replacing the group entered in the sample four years before.

	A	B	C	D	E	F	G	H	I
T	A4	B3	C2	D1					
T+1		B4	C3	D2	E1				
T+2			C4	D3	E2	F1			
T+3				D4	E3	F2	G1		
T+4					E4	F3	G2	H1	
T+5						F4	G3	H2	I1

Each group is associated to one municipality of the strata. The self-representative municipalities are enclosed in each of the rotational groups: in such case the households referring to these municipalities are divided in 4 independent samples.

2.1.8. Weightings

Weighting factors have been calculated taking into account the units' probability of selection, the non-response adjustment and the calibration to external data relating to the distribution of households and persons in the target population.

2.1.8.1 Design weight

Wave 1;

In case of the households at the first wave, the design weight of each household was given by the inverse of its inclusion probability and was calculated taking into account the population of the stratum, the population and the number of households in the extracted municipalities. In every stratum it is extracted one municipality.

Let p_{ji} be the design weight of the generic household j in the municipality i :

$$p_{ji} = \frac{1}{\pi_{hi}} = \frac{P_h}{P_{hi}} \frac{M_{hi}}{m_{hi}}$$

where :

h is the stratum index;

i is the municipality index;

π_{hi} is the inclusion probability of the households resident in the municipality i of the stratum h ;

P_h is the population resident in the stratum h ;

P_{hi} is the population in the municipality i of the stratum h ;

M_{hi} is the number of households resident in the municipality i of the stratum h ;

m_{hi} is the number of sample households in the municipality i of the stratum h .

Wave 2, 3, 4;

In case of the households at the second, third or fourth wave, an indirect sampling of households is done through the panel of persons aged 14+ at the time of the panel selection. In this case, the inclusion probabilities cannot be calculated. Then, the solution consists of applying the Weight Share Method. Within a household, each member has been assigned a weight coming from the final cross-sectional weight of the precedent year of survey corrected for unit non-response, except for co-residents from whom the weight is =0. Average of these weights over all the household members (including co-residents) is assigned to each member (including co-residents).

2.1.8.2 Non-response adjustments

In the sample we observe two different non-response level: individual-level and household-level.

Concerning with the individual-level non-response, the records of the non-respondent individual belonging to respondent households were totally imputed.

Concerning with the non-response adjustment at the household level, the base weights were adjusted by a correction factor for total non-response worked out as the reciprocal of the response probability for each household identified by the information we had on the extracted sample (for the households at wave 1) or gathered from the previous year of survey (for the households at wave 2, 3, 4). The response probability is obtained by a logistic regression model.

The re-calculated weight \hat{p}_j for the generic household j is:

$$\hat{p} = p_j / \pi_j, \text{ where } p_j \text{ is the design weight and } \pi_j \text{ is the response probability.}$$

Wave 1: the information used for the “new” households are:

territorial domain (NUTS II level), demographic size of the municipalities, number of household components and sex, age and nationality of the householder (gathered from demographic registers).

Wave 2, 3, 4: the information used for the “old” households are: territorial domain (NUTS II), demographic size of the municipalities, number of household components, type of income sources, tenure status, rotational group, household disposability to the interview in previous year, nationality, sex, age, education and professional condition of the household components.

Even if for wave 2, 3 and 4 we have information on education and professional condition of the sample, in conformity with the previous year of survey a first stage of calibration procedure was adopted to assure the same structure as the population of the Labour Force Survey with regard to the education and professional position of the population. This is due to the fact that in Italy the non-response in an income survey is correlated with the position in the labour market (especially for self-employed) and with the education level of the respondents.

2.1.8.3 Adjustments to external data (level, variables used and sources)

After the non-response adjustments, the final weights were obtained applying a calibration of the household weights to external data sources (registers). Let $X_1, X_2 \dots X_p$ denote the external (known) variables

The calibration procedure consists of calculating the household weights ψ_j , such as:

- The calibrated weights are “not very different” from the weights \hat{p}_j
- The totals X_r of the calibration variables are exactly estimated by the same totals in the sample obtained with the weights ψ .

The external known totals are the following:

For the entire sample:

- 1) Distribution of the population by sex and fourteen 5-years age-groups at NUTS I level (year t-1). The age groups are: 0-15, 16-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75+ at the end of the income reference period (year t-1);
- 2) Distribution of the population by sex and five age-groups at NUTS II level (year t-1). The age groups are: 0-15, 16-25, 26-45, 46-65, 65+ at the end of the income reference period (year t-1).
- 3) Distribution of non-national population at NUTS I level by sex; by UE and non UE distribution; by age in two classes: 0-17, 18+ at the end of the income reference period (year t-1).
- 4) Distribution of the population by demographic size of the municipality at Nuts I level (year t-1) (six classes).
- 5) Number of households at NUTS II level at the time of the survey (year t)

For the entering rotational sub-group (at first wave):

- 1) Distribution of the population by sex and five age-groups at NUTS I level. The age groups are: 0-15, 16-25, 26-45, 46-65, 65+ at the end of the income reference period (year t-1).
- 2) Amount of non-national population at NUTS I level distinct in two classes: 0-17, 18+ at the end of the income reference period (year t-1).
- 3) Distribution of the population by demographic size of the municipality at Nuts I level (year t-1) (three classes).
- 4) Number of households at NUTS I level at the time of the survey (year t)

For the other sub-groups:

- 1) Population at NUTS I level (year t-1)

2) Number of households at NUTS I level (year t);

2.1.8.4 Final cross-sectional weights

We applied an integrative calibration, that means that we used both household and personal variables in the procedure. The calibration is performed at household level using the household variables and the individual variables in their aggregate form as calibration variables. This technique ensures that members in the same household all receive the same weight. A trimming procedure was applied to avoid extreme values of weights.

2.1.9. Substitutions

In Italy no substitution of unit non-response has been applied.

2.2. Sampling errors

With reference to the survey - year 2009-, sampling errors were calculated for the following EU indicators based on the cross-sectional component of EU-SILC.

In particular, sampling errors of the above indicators were estimated by the following steps:

- 1) linearization of the statistics of interest and derivation of a fictive variable for each of them (using SAS programs developed by EUROSTAT);
- 2) calculation of sampling variance using GENESEES software (software used at ISTAT to evaluate sampling errors).

2.2.1. Standard errors and effective sample size

The following table contains respectively the value, the absolute sampling error, the percentage relative sampling error, the effective sample size (sample respondent persons) for each of the above indicators.

EU indicators- year 2009: sampling errors and effective sample size

	Value	Absolute sampling error	Relative sampling error %	Effective sample size (persons)
	(a)	(b)	(c)=(b)/(a)*100	
At risk of pov. threshold	9377	46,94	0,50	51196
At risk of pov. rate 60% (after s.t.)	18	0,33	1,78	51196
At risk of pov. rate 40% (after s.t.)	7	0,26	3,85	51196
At risk of pov. rate 50% (after s.t.)	12	0,32	2,78	51196
At risk of pov. rate 70% (after s.t.)	26	0,30	1,15	51196
At risk of pov. rate 60% (before s.t.) without pensions	43	0,30	0,71	51196
At risk of pov. rate 60% (before s.t.) with pensions	23	0,31	1,33	51196
S80/S20	5	0,09	1,70	51196
Relative median at risk pov. gap	23	0,65	2,86	8610
Gini index	31	0,26	0,83	51196
Equivalised disposable income	17963	93,33	0,52	51196

At risk of pov. rate 60% (after s.t.)				
Age and Gender				
0-17	24	0,68	2,78	9105
18-24	22	1,01	4,69	3710
25-49	17	0,43	2,55	17968
50-64	13	0,45	3,35	9885
18-64	16	0,37	2,25	31563
65+	20	0,56	2,85	10528
18+	17	0,31	1,81	42091
0-59	18	0,42	2,28	37455
60+	18	0,47	2,56	13741
0-74	18	0,37	2,07	46477
75+	21	0,75	3,51	4719
Female 0-17	23	0,60	2,60	1871
Female 18-24	23	1,22	5,26	1871
Female 25-49	18	0,48	2,64	9189
Female 50-64	14	0,55	3,83	5084
Female 18-64	18	0,41	2,31	16144
Female 65+	22	0,67	2,98	5931
Female 18+	19	0,34	1,83	22075
Female 0-59	19	0,45	2,35	19004
Female 60+	21	0,60	2,83	7583
Female 0-74	19	0,40	2,10	23738
Female 75+	24	0,92	3,82	2849
Male 0-17	24	0,90	3,73	4593
Male 18-24	20	1,46	7,30	1839
Male 25-49	16	0,49	3,14	8779
Male 50-64	12	0,56	4,54	4801
Male 18-64	15	0,41	2,73	15419
Male 65+	16	0,71	4,49	4597
Male 18+	15	0,36	2,34	20016
Male 0-59	18	0,48	2,71	18451
Male 60+	15	0,53	3,61	6158
Male 0-74	17	0,41	2,43	22739
Male 75+	17	1,05	6,20	1870
Female	17	0,35	2,07	24609
Male	20	0,38	1,94	26587

At risk of pov. rate 60% anchored at a fixed moment in time				
<i>Age and Gender</i>				
Total	18	0,34	1,88	51196
Female 0-17	24	0,93	3,83	4512
Female 18-64	17	0,39	2,25	16144
Female 65+	22	0,67	3,02	5931
Male 0-17	24	0,89	3,70	4593
Male 18-64	15	0,42	2,79	15419
Male 65+	16	0,64	4,02	4597
Female	20	0,37	1,91	26587
Male	17	0,39	2,33	24609

Dispersion around poverty threshold (40%)				
<i>Age and Gender</i>				
Total	7	0,24	3,52	51196
0-17	6	1,17	19,36	42091
18-64	7	0,24	3,64	31563
65+	4	0,26	6,51	10528
Female	7	0,27	3,65	26587
Female 0-17	10	0,66	6,54	4512
Female 18-64	8	0,28	3,75	16144
Female 65+	4	0,36	8,04	5931
Male	6	0,27	4,36	24609
Male 0-17	9	0,68	7,17	4593
Male 18-64	6	0,27	4,69	15419
Male 65+	3	0,32	9,57	4597

Dispersion around poverty threshold (50%)				
<i>Age and Gender</i>				
Total	12	0,31	2,65	51196
0-17	16	0,65	4,09	9105
18-64	11	0,32	3,04	31563
65+	10	0,46	4,44	10528
60+	10	0,40	4,03	13741
75+	11	0,63	5,96	4719
Female	13	0,35	2,74	26587
Female 0-17	16	0,83	5,11	4512
Female 18-64	12	0,34	2,94	16144
Female 65+	13	0,60	4,83	5931
Female 60+	12	0,53	4,38	7583
Female 75+	13	0,83	6,34	2849
Male	10	0,33	3,23	24609
Male 0-17	16	0,79	4,99	4593
Male 18-64	12	0,38	3,26	16144
Male 65+	13	0,56	4,50	5931
Male 60+	12	0,47	3,92	7583
Male 75+	13	0,83	6,34	2849

Dispersion around poverty threshold (70%)				
<i>Age and Gender</i>				
Total	26	0,33	1,24	51196
0-17	34	0,68	2,00	9105
18-64	24	0,35	1,49	31563
65+	28	0,61	2,19	10528
60+	26	0,52	2,00	13741
75+	30	0,87	2,89	4719
Female	28	0,36	1,30	26587
Female 0-17	35	0,93	2,69	4512
Female 18-64	25	0,40	1,58	16144
Female 65+	31	0,73	2,40	5931
Female 60+	29	0,63	2,19	7583
Female 75+	33	1,01	3,09	2849
Male	24	0,37	1,53	24609
Male 0-17	34	0,88	2,61	4593
Male 18-64	22	0,42	1,92	15419
Male 65+	24	0,77	3,20	4597
Male 60+	22	0,63	2,82	6158
Male 75+	26	1,24	4,78	1870

S80/S20				
<i>Age and Gender</i>				
0-64	5	0,10	1,83	40668
65+	5	0,10	2,16	10528

At risk of pov. rate 60% (after s.t.)				
<i>Frequent activity status</i>				
Frequent activity status and gender: total population	17	0,39	2,23	42393
Employment	10	0,27	2,60	19619
Unemployment	41	1,52	3,69	2335
Retired	14	0,50	3,65	9095
Inactive population- other	27	0,56	2,02	11344
Non employment	24	0,43	1,83	22774
Frequent activity status and gender: females	19	0,42	2,22	22195
Females employment	8	0,36	4,51	8099
Females unemployment	37	1,63	4,40	1301
Females retired	14	0,68	4,80	4011
Females inactive population- other	29	0,59	2,04	8784
Total females non employment	25	0,48	1,87	14096
Frequent activity status and gender: males	15	0,44	2,87	20198
Males employment	12	0,36	3,04	11520
Males unemployment	46	2,26	4,96	1034
Males retired	13	0,58	4,28	5084
Males inactive population- other	23	1,01	4,33	2560
Total males non employment	21	0,59	2,86	8678

<i>Household type</i>				
Total no dependent children	15	0,32	2,10	25496
One person household, under 65 years	21	0,97	4,66	2602
One person household, 65 years and over	31	0,99	3,23	2823
One person household, male	18	1,01	5,56	2142
One person household, female	31	0,89	2,88	3283
One person household, total	26	0,68	2,63	5425
2 adults, no dependent children, both adults under 65 years	10	0,63	6,29	4444
2 adults, no dependent children, at least one adult 65 years or more	16	0,75	4,75	6398
Other households without dependent children	9	0,54	5,71	9229
Total dependent children	22	0,57	2,61	25700
Single parent household, one or more dependent children	35	2,31	6,55	1687
2 adults, one dependent child	15	0,91	6,27	6630
2 adults, two dependent children	21	0,94	4,54	8936
2 adults, three or more dependent children	39	2,86	7,26	2723
other households with dependent children	21	1,31	6,25	5724

<i>Accommodation tenure status</i>				
Owner	16	0,37	2,39	43134
Rent	31	0,88	2,84	8062

<i>Accommodation tenure status (Owner)</i>				
0-17	19	0,77	4,01	7437
18-64	13	0,40	3,01	26396
65+	19	0,57	2,97	9301
60+	18	0,50	2,84	12147
75+	21	0,81	3,85	4201
Female	17	0,40	2,39	22353
Female 0-17	20	0,97	4,92	3669
Female 18-64	14	0,43	3,04	13498
Female 65+	22	0,73	3,34	5186
Male	14	0,41	2,91	20781
Male 0-17	19	0,95	5,05	3768
Male 18-64	12	0,45	3,60	12898
Male 65+	16	0,66	4,25	4115

<i>Accommodation tenure status (Tenant)</i>				
0-17	43	1,86	4,34	1668
18-64	29	1,04	3,61	5167
65+	23	1,58	6,91	1227
60+	23	1,41	6,06	1594
75+	24	2,16	9,07	518
Female	32	1,12	3,47	4234
Female 0-17	42	2,51	6,01	843
Female 18-64	32	1,14	3,61	2646
Female 65+	25	1,94	7,65	745
Male	29	1,15	3,97	3828
Male 0-17	44	2,15	4,91	825
Male 18-64	26	1,20	4,60	2521
Male 65+	19	2,16	11,59	482

At risk of pov. rate 60% (before s.t.)					
without pension					
<i>Age and gender</i>					
Female18- 64	35	0,43	1,24	16144	
Female 65+	84	0,54	0,64	5931	
Female 18+	48	0,34	0,71	22075	
Male 18-64	30	0,44	1,46	15419	
Male 65 +	81	0,69	0,86	4597	
Male 18+	41	0,37	0,92	20016	
0-17	34	0,66	1,94	9105	
18-64	32	0,37	1,16	31563	
65+	83	0,48	0,58	10528	
18+	45	0,31	0,69	42091	
female	46	0,34	0,74	26587	
male	39	0,37	0,93	24609	

At risk of pov. rate 60%(before s.t.)					
with pension					
<i>Age and gender</i>					
Female18- 64	23	0,40	1,76	16144	
Female 65+	24	0,67	2,80	5931	
Female 18+	23	0,34	1,46	22075	
Male 18-64	20	0,41	2,07	15419	
Male 65 +	18	0,73	4,01	4597	
Male 18+	20	0,36	1,85	20016	
0-17	32	0,66	2,08	9105	
18-64	21	0,36	1,68	31563	
65+	22	0,56	2,61	10528	
18+	21	0,30	1,42	42091	
female	25	0,34	1,40	26587	
male	22	0,37	1,68	24609	

Relative median at risk pov. Gap					
<i>Age and gender</i>					
Female 18-64	27	0,83	3,07	2602	
Female 65+	19	0,48	2,57	1234	
Female 18+	22	0,54	2,43	3836	
Male 18-64	24	1,01	4,27	2123	
Male 65 +	15	0,67	4,48	685	
Male 18+	21	0,80	3,78	2808	
0-17	24	1,38	5,80	1966	
18-64	25	0,82	3,22	4725	
65 +	17	0,45	2,59	1919	
18+	22	0,59	2,70	6644	
female	23	0,63	2,76	4819	
male	22	0,83	3,68	3791	

2.3. Non-sampling errors

2.3.1. Sampling frame and coverage errors

The sampling frame is composed by the registers of the municipalities.

The sample of the households belonging to the second rotational group was extracted in July 2006 and validated within September 2006; the one belonging to the third rotational group was extracted in July 2007 and validated within September 2007; households with DB075 = 4 were extracted in July 2008 and validated within September 2008; finally, households whose DB075 is equal to 1 were extracted in July 2009 and validated within next September.

The sampling frame is updated in continuous way by the municipalities in interactive modality.

2.3.2. Measurement and processing errors

2.3.2.1. Measurement errors

We consider that the following sources of measurement errors are likely to affect the collected data:

1. *respondents*: (i) memory effect, because information is collected according to respondents memories (official documentation about income is not required; external sources of information, as administrative registers, are used when available); (ii) omission, because respondents might not be willing to provide correct information about income or other living conditions; (iii) proxy effect, because in a few cases some individuals are allowed to provide information about other household members;
2. *interviewers*, who might provide the respondents with an incorrect interpretation of the questions, or might mistake when filling the questionnaire. Istat territorial offices are firstly trained and provided with training tools (e.g. instruction manuals, or presentations). Then, they are responsible for the interviewers training: they establish the timing and the duration of the training meetings, as well as provide support during the field work and control for the quality of the interviewers' work. Training strategies have been outlined also on the experience of pilot surveys;
3. *data entry* personnel, who might enter incorrect information, although some automatic controls are implemented in the registration software;
4. *questionnaire*. The final version of the questionnaire, as used in the survey 2007, is based on (i) the first three waves of SILC surveys; (ii) the support of experts working in other research institutes; and (iii) a cognitive laboratory on self-employment. Information is collected through three main questionnaires: the first one collects information about each household member's demographic characteristics, and child care; the second one collects information at household level; the third one collects information at individual level (about individual aged 16 and over).

2.3.2.2. Processing errors

Description of data entry procedure

Data entry procedure is realised through a software application implemented using Blaise. The procedure contains automatic controls about: range of variable, main routes of questionnaire and any logical controls referred to internal inconsistency of collected information. Every control is set-up like “soft” in order to reduce typing errors.

Furthermore, the procedure provides for “hard” control in order to compare register and questionnaire information about household’s composition.

Coding controls

Coding controls are implemented in post-data-collection-process based on donor method.

Main errors detected in the post data collection process

Main errors detected are:

- Missing value.
- Value outside acceptance range.
- Incoherence value compared to other information in the same record.

2.3.3. Non-response errors

2.3.3.1. Achieved sample size

The following table shows the number of households for which the interview is accepted for the database and number of persons of 16 years or older who are members of the households for which the interview is accepted for the database, by rotational group.

Rotational Group (DB075)	Households (%)	Persons of 16 years or older (%)
1	5882 (28.7)	12283 (28.49)
2	4448 (21.71)	9345 (21.68)
3	4942 (24.12)	10491 (24.33)
4	5220 (25.47)	10992 (25.5)
Total	20492 (100.00)	43111 (100.00)

2.3.3.2. Unit non-response

For the Italian 2007 SILC survey the address contact rate (R_a), the proportion of completed household interviews accepted for the database (R_p), the household non-response rate (NR_h), the proportion of complete personal interviews within the households accepted for the database (R_p), the individual non-response rates (NR_p) and the overall individual non-response rates ($NR_{p_overall}$) are shown below:

TYPE OF RATE	NEW REPLICATION	TOTAL SAMPLE
RA	0.987	0.993
RH	0.782	0.842
NRH	22.768	16.342
RP	1	1
NRP	0	0
NRP_OVERALL	22.768	16.342

where:

$$NR_h = (1 - (R_a * R_h)) * 100$$

Where:

$$R_a = \frac{\text{Number of addresses successfully contacted}}{\text{Number of valid addresses selected}} = \frac{\sum[DB120 = 11]}{\sum[DB120 = all] - \sum[DB120 = 23]}$$

R_a is the address contact rate

$$R_h = \frac{\text{Number of household interviews completed and accepted for database}}{\text{Number of eligible households at contacted addresses}} = \frac{\sum[DB135 = 1]}{\sum[DB130 = all]}$$

R_h is the proportion of complete household interviews accepted for the database

DB120 is the record of contact at the address

DB130 is the household questionnaire result, and

DB135 is the household interview acceptance result.

$$NR_p = (1 - (R_p)) * 100$$

Where:

$$R_p = \frac{\text{Number of personal interviews completed}}{\text{Number of eligible individuals in the households whose interviews were completed and accepted for the database}} = \frac{\sum[RB250 = 11 + 12 + 13]}{\sum[RB245 = 1 + 2 + 3]}$$

R_p is the proportion of complete personal interviews within the households accepted for the database

RB245 is the respondent status, and

RB250 is the data status.

Overall individual non-response rates ($NR_{p_overall}$) has been computed as follows:

$$NR_{p_overall} = (1 - (R_a * R_h * R_p)) * 100$$

2.3.3.3. Distribution of households (original units) by ‘record of contact at address’ (DB120), by ‘household questionnaire result’ (DB130) and by ‘household interview acceptance’ (DB135), for each rotational group and for the total

Frequency Percent Row Pct Col Pct Rotational Group (DB075)	DB120					DB130						DB135
	11	21	22	23	Total	11	21	22	23	24	Total	1
1	7520	73	23	363	7979	5882	769	307	103	459	7520	5882
	29.9	0.3	0.1	1.4	31.7	24.2	3.2	1.3	0.4	1.9	30.9	28.7
	94.25	0.91	0.29	4.55		78.22	10.23	4.08	1.37	6.1		100
	30.9	63.5	45.1	53.5		28.7	42.6	47.2	45.0	39.9		28.7
2	5097	12	4	103	5216	4448	296	102	37	214	5097	4448
	20.3	0.1	0.0	0.4	20.7	18.3	1.2	0.4	0.2	0.9	21.0	21.7
	97.72	0.23	0.08	1.97		87.27	5.81	2	0.73	4.2		100
	21.0	10.4	7.8	15.2		21.7	16.4	15.7	16.2	18.6		21.7
3	5642	11	16	101	5770	4942	327	121	53	199	5642	4942
	22.4	0.0	0.1	0.4	22.9	20.3	1.3	0.5	0.2	0.8	23.2	24.1
	97.78	0.19	0.28	1.75		87.59	5.8	2.14	0.94	3.53		100
	23.2	9.6	31.4	14.9		24.1	18.1	18.6	23.1	17.3		24.1
4	6070	19	8	112	6209	5220	415	120	36	279	6070	5220
	24.1	0.1	0.0	0.4	24.7	21.5	1.7	0.5	0.2	1.2	25.0	25.5
	97.8	0.3	0.1	1.8		86	6.84	1.98	0.59	4.6		100
	25.0	16.5	15.7	16.5		25.5	23.0	18.5	15.7	24.2		25.5
Total	24329	115	51	679	25174	20492	1807	650	229	1151	24329	20492
	96.6	0.5	0.2	2.7	100.0	84.2	7.4	2.7	0.9	4.7	100.0	100

2.3.3.4. Distribution of substituted units (if applicable) by ‘record of contact at address’ (DB120), by ‘household questionnaire result’ (DB130) and by ‘household interview acceptance’ (DB135), for each rotational group (if applicable) and for the total

In Italy the substitution of non-respondents units is not applied.

2.3.3.5. Item non-response

Table 1. Distribution of item non-response

	(A) % of households having received an amount	(B) % of households with missing values (before imputation)	(C) % of households with partial information (before imputation)
Item non-response			
Total household gross income ⁴	99.46	0.30	86.79
Total disposable household income	99.56	0.62	58.04
Total disposable household income before social transfers other than old-age and survivors' benefits	99.18	0.93	56.30
Total disposable household income before social transfers including old-age and survivors' benefits	93.65	3.38	53.71
Net income components at household level⁵			
Imputed rent	0.00	0.00	0.00
Income from rental of a property or land	9.14	4.68	0.82
Family/children related allowances	29.31	1.97	0.56
Social exclusion not elsewhere classified	0.96	0.13	0.00
Housing allowances	2.07	0.22	0.02
Regular inter-household cash transfer received	5.43	0.59	0.89
Interest, dividends, profit from capital investments in unincorporated business	52.31	19.59	2.77
Interest repayments on mortgage	13.29	13.29	0.00
Income received by people aged under 16	0.54	0.08	0.03
Regular taxes on wealth	41.06	24.48	3.78
Regular inter-household cash transfer paid	4.59	0.38	0.08
Repayments/receipts for tax adjustment	68.54	0.13	0.22
Gross income component at household level⁶			
Imputed rent	88.57	0.00	0.00
Income from rental of a property or land	9.14	4.68	4.19
Family/children related allowances	29.31	1.97	0.78
Social exclusion not elsewhere classified	0.96	0.13	0.03
Housing allowances	2.07	0.22	0.12
Regular inter-household cash transfer received	5.43	0.59	1.00
Interest, dividends, profit from capital investments in unincorporated business	52.31	19.59	32.72
Interest repayments on mortgage	13.29	13.29	0.00
Income received by people aged under 16	0.54	0.08	0.03
Regular taxes on wealth	41.06	24.48	3.78
Regular inter-household cash transfer paid	4.59	0.38	0.08
Tax on income and social contributions	95.47	7.70	76.00

Table 1. Distribution of item non-response

	(A) % of persons 16 having received an amount	(B) % of persons 16 with missing values (before imputation)	(C) % of persons 16 with partial information (before imputation)
Item non-response			
Net income components at personal level⁶			
Employee cash or near cash income	40.99	2.80	6.04
Non cash employee income	10.44	6.09	0.91
Company car	0.81	0.00	0.00
Contributions to individual private pension plans	5.91	0.78	0.00
Cash benefits or losses from self-employment	15.75	4.20	0.24
Value of goods produced by own-consumption	25.93	2.49	0.00
Pension from individual private plans	0.17	0.00	0.00
Unemployment benefits	9.62	0.43	0.06
Old-age benefits	30.31	0.07	0.19
Survivor' benefits	1.58	0.00	0.00
Disability benefits	3.23	0.02	0.00
Education related allowances	0.60	0.10	0.00
Gross income components at personal level⁶			
Employee cash or near cash income	40.99	0.31	10.89
Non cash employee income	10.44	6.09	1.35
Company car	0.81	0.00	0.05
Employer's social insurance contribution	40.51	40.51	0.00
Contributions to individual private pension plans	5.91	0.78	0.00
Cash benefits or losses from self-employment	15.75	0.28	5.07
Value of goods produced by own-consumption	25.93	2.49	0.00
Pension from individual private plans	0.17	0.00	0.00
Unemployment benefits	9.62	0.23	9.35
Old-age benefits	30.31	0.05	0.74
Survivor' benefits	1.58	0.00	0.02
Disability benefits	3.23	0.02	0.05
Education related allowances	0.60	0.10	0.00
Gross monthly earnings of employees	32.95	3.64	0.00

Note to table 2.3.3.5

The variable “interest repayments on mortgage” is derived on the basis of survey’s information and the percentage of households having received an amount is equal to the percentage of households with missing value before imputation. For old age benefits, disability benefits and survivor’ benefits, administrative data cover about 95% of Eu-Silc pensioners.

2.3.3.6 The total item non-response and number of obs in the sample at unit level of the common cross-sectional European Union indicators based on the cross-sectional component of EU-SILC, for equivalised disposable income and for the unadjusted gender pay gap.

The total item non-response for total disposable household income is 0.62 per cent (number of observations is 128) and the total number of observations is 20.492 (unit=households). For unadjusted gender pay gap the total item non-response is 3.64 per cent (number of observations is 1570) and the total number of observations is 43.111 (unit=individuals 16 +).

2.4. Mode of data collection

The distribution of individuals aged 16 and over by data status (RB250) and by type of interview (RB260) is shown below. As the non-respondent individuals belonging to interviewed households have been completely imputed with donor method, the distribution of individual by data status is that of the achieved sample size of individuals aged 16 and over. reported in § 2.3.3.1.

Frequency Percent Row Pct Col Pct	RB250	RB260		Total
		Face to face interview-PAPI	Proxy interview	
Rotational Group (DB075)	11			
1	12283	9949	2334	12283
	28.49	23.08	5.41	28.49
		81	19	
		28.41	28.83	
2	9345	7618	1727	9345
	21.68	17.67	4.01	21.68
		81.52	18.48	
		21.76	21.33	
3	10491	8495	1996	10491
	24.33	19.7	4.63	24.33
		80.97	19.03	
		24.26	24.65	
4	10992	8952	2040	10992
	25.5	20.77	4.73	25.5
		81.44	18.56	
		25.57	25.19	
Total	43111	35014	8097	43111
	100	81.22	18.78	100

2.5. Interview duration

The mean household interview duration, calculated as prescribed amounts to 72 minutes.

3. COMPARABILITY

3.1. Basic concepts and definitions

The national concepts use **the differences between the national concepts and standard EU-SILC concepts**, and an assessment, if available, of the consequences of the differences mentioned.

- The reference population: same definition as standard EU-SILC;
- the private household definition: in accordance with the Commission Regulation (EC) N° 1980/2003 (Annex I. paragraph 1.1), that allow to the Member States for using the common household definition defined in their own national statistical system in EU-SILC Italy uses the following Italian household definition: “*cohabitants related through marriage, kinship, affinity, adoption, patronage and affection*”;
- the household membership: the Italian EU-SILC does not include live-in domestic personnel au pairs. Concerning these persons, only some socio-demographic information are collected (date of birth, sex, marital status, duration of stay in the household). The number of these persons included in the sample was 51 (0.19% with respect to the total number of households and 0.08% with respect to interviewed individuals).
- the income reference period(s) used: same definition as standard EU-SILC;
- the period for taxes on income and social insurance contributions: same definition as standard EU-SILC;
- the reference period for taxes on wealth: same definition as standard EU-SILC;
- the lag between the income reference period and current variables: *in the Italian EU-SILC 2007 current variables are referred to the moment of interview that is about 10 months after the end of the income reference period*;
- the total duration of the data collection of the sample: *2 months. starting from the transmission of questionnaires to interviewers until their return back.*
- basic information on activity status during the income reference period: same to the standard EU-SILC concept;

3.2. Components of income

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

- total household gross income: same definition as standard EU-SILC;

- total disposable household income: same definition as standard EU-SILC;
- total disposable household income. before social transfers other than old-age and survivors' benefits: same definition as standard EU-SILC;
- total disposable household income. before social transfers including old-age and survivors' benefits: same definition as standard EU-SILC;
- imputed rent: estimated by a semilogarithmic regression (log of the rent, avoiding the re-transformation bias) with self-selection correction à la heckman. In the first stage, we run distinct probit models for owners/renters at a below-the-mkt price/free tenants vs tenants at a mkt price. Seniority is included between regressors, but its effect is depurated (parameter from regression equal to 0) in estimating predicted values for sub-populations other than tenants at a mkt rate;
- income from rental of property or land: same definition as standard EU-SILC;
- family/children-related allowances: same definition as standard EU-SILC;
- social exclusion payments not elsewhere classified: same definition as standard EU-SILC;
- housing allowances: same definition as standard EU-SILC;
- regular inter-household cash transfers received: same definition as standard EU-SILC;
- interest. dividends. profit from capital investments in unincorporated businesses: same definition as standard EU-SILC;
- interest paid on mortgages: same definition as standard EU-SILC;
- income received by people aged under 16: same definition as standard EU-SILC;
- regular taxes on wealth: same definition as standard EU-SILC;
- regular inter-household transfers paid: same definition as standard EU-SILC;
- tax on income and social insurance contributions: same definition as standard EU-SILC;
- repayments/receipts for tax adjustments: repayments/receipts for tax adjustments are those paid in the $n+1$ year, where n is the income reference period. This is consistent with the (optional) definition of taxes as 'taxes due on the incomes of the reference period'. An accurate assessment of the differences between the two tax concepts will be feasible after 2009, when it is possible to compare the total taxes due on the incomes of the reference period with the total taxes paid during the same period for the individuals included in the first two-year panel with gross incomes.
- cash or near-cash employee income: same definition as standard EU-SILC;

- non-cash employee income: the value of the company car for personal use is the user's cost estimated by the ACI (Automobile Club Italiano);
- employers' social insurance contributions: includes also contribution for Cococo “co-ordinated and continuative collaborators”, a special category of status in employment;
- cash profits or losses from self-employment (including royalties): the standard procedure requires to collect the amount of money drawn out of self-employment activity only when the profit/loss resulting from accounting books or the taxable self-employment income (net of corresponding taxes) are not available. For the Italian EU-SILC, both administrative and survey micro-data are available, through an exact matching of tax and sample records. The income from self-employment is set equal to the maximum value between: (i) the (net) self-employment income resulting from the Tax Report and (ii) the (net) self-employment income reported by the interviewee. In the questionnaire, the self-employment income question is preceded by a 'reminder question' that provides a YES/NO list of the possible personal uses of earnings (consumption and saving). The departure from the standard definition (using both sampling and administrative data) is adopted in order to minimise either tax avoidance in the administrative data or under-reporting in the survey data, depending on which of the two is greater. With respect to the standard one, the procedure adopted for the Italian EU-SILC leads to more comparable data, under the assumption that other countries' self-employment incomes are not underestimated;
- value of goods produced for own consumption: same definition as standard EU-SILC;
- unemployment benefits: same definition as standard EU-SILC;
- old-age benefits: same definition as standard EU-SILC;
- survivors' benefits: same definition as standard EU-SILC;
- sickness benefits. paid sickness leaves of employees are included in the dependent employment incomes;
- disability benefits: same definition as standard EU-SILC;
- education-related allowances: same definition as standard EU-SILC;
- gross monthly earnings for employees: same definition as standard EU-SILC;

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

The sources or procedures used for the collection of income variables are Paper and pencil interviews (PAPI) for all income variable, including the money drawn out of business by the self-employed and administrative data. Administrative data have been linked to sample data and used for estimating data on employee income, pensions and self-employment incomes.

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

All income variables at component level are both net and gross of taxes and social security contribution at source.

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

Gross values are estimated by a new methodology using in conjunction an exact record linkage between survey and fiscal data at micro level and a microsimulation model (Siena Microsimulation Model SM2-EU-SILC). The integration of microsimulation with register data has the advantage of using administrative data for the validation of microsimulation results. On the other hand, SM2-EU-SILC estimates those tax and social insurance contributions not covered by register data. Four main register data are used: 730 tax returns used by employees and pensioners, UNICO tax returns used primarily by self employed workers, CUD employers' tax statements which include also data on social security contributions, and Pension Register Data. Both the use of administrative data and microsimulation estimates improves the quality and the amount of information on gross income variables.

4. COHERENCE

4.1. Comparison of income target variables and number of persons who receive income from each 'income component', with external sources

In this section we present the main results of the comparison between EU-SILC data and external data sources for the principal income target variables. In particular, we focus on the following income components: 1) Employee – cash, near cash income, non cash – income (PY010N/G+PY020N/G); 2) Social transfers as the sum of Old-age benefits (PY100N/G), Survival benefits (PY110N/G) and Disability benefits (PY130N/G). Data from National Accounts, Labour Force Survey by Istat, Fiscal Agencies of the Ministry of the Economy and Pensions Register by INPS (National Institute for Social Security) are used as external benchmarks. The table 1 below shows the closeness of employee income EU-SILC estimates respect to the National Accounts aggregates for the year 2008 (below 1.5%). Table 2 shows that the number of employed income earners estimated using EU-SILC approximates the number of employees from Fiscal Agency data (universe of taxable employed income recipients) during 2008. Differences in applied definitions (i.e. domestic vs resident employment), reference period and coverage of the two data sources can explain well the gap in estimates. The tax register does not report information on incomes and employees of the hidden economy, that are partially included in the survey.

Table 1 - Employee income

Economic components:	millions of euro – 2008	
	National Accounts* and Fiscal Agencies**	Eu-Silc_09
Gross employee income (cash, near cash, non cash) (PY010G+PY020G) (+)	479,109	472,226
Social contribution paid on employee income (-)	41,451	40,935
Tax on employee income (-)	87,650	86,469
Net employee income (PY010N+PY020N)	350,008	344,822

Table 2 - Employees

Number of people who have received wage and salary (cash or near cash) during 2008	Thousands of units – 2008	
	Fiscal Agencies**	Eu-Silc_08
	21,145	21,483

Due to lack of harmonization, National Accounts data are not directly comparable with EU-SILC estimates on self-employment incomes. In table 3 are compared the EU-SILC 2006 estimate of number of self-employment incomes earners with the self-employed of other sources. Notice that in LFS a worker is classified as an independent on the basis of his/her main activity. With respect to NA, the estimate of self-employed units in term of full time equalised workers are presented. The EU-SILC estimate is referred to the number of people whose earnings from self-employment may have been temporary and/or from a secondary working activity.

Table 3 – Self-employed

Number of people who receive cash benefit or losses from self-employment (PY050N)	Thousands of units – 2008		
	National Accounts (ula*)	Labour force survey estimate Istat	Eu-Silc_09
	7,015	5,959	7,448

(*) full time equivalent unit of workers

Finally, in tables 4 and 5 are reported data on social expenditure and beneficiaries for three kind of functions put all together: old-age, survival and disability. In both cases, EU-SILC 2009 estimates are quite close to the administrative data. We remark that the differences on social benefits amount displayed by the two datasources (PY100N/G-PY110N/G-PY130N/G) are due to the inclusion of an income component “severance pay” in the Eu-Silc survey that is not allocated in NA (4,867 millions of euro before tax).

Table 4 – Social benefits payment (old-age, survivors and disability functions)

PY100N-PY110N-Y130N

Millions of euro - 2008

Economic Components:	National Account* and Fiscal Agencies**	Eu-Silc_09
PY100G-PY110G-PY130G* (+)	240,652	245,868
Tax on Old-age-Survival-disability benefits** (-)	37,618	40,243
PY100N-PY110N-PY130N	203,594	205,625

Table 5 – Social benefits recipients

	Thousands – 2008	
Number of beneficiaries of Old-age-Survival-disability pensions	Pension Register of INPS*** (excluded persons aged under 15 and/or residing abroad)	Eu-Silc_09
	16,230	16,677

(***) the severance pay (lump-sum) recipients are excluded