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1 Introduction

The ever increasing relevance of EU-SILC data is directly linked to the increasing request for clear and easily accessible information on the collection of these data, the calculation of the published indicators along with information on their quality and methodological limitations that should taken into consideration by users of these data. Eurostat has drafted this paper presenting in detail the methods used for the computation of EU-SILC indicators/datasets published in Eurostat dissemination database (Eurobase) under the 'Income and Living conditions' node of the dissemination tree. So far information about the calculation of these indicators has been sparse in different Eurostat documents and sources. The aim of this paper is to present in a coherent way the calculation of these indicators/datasets with the view to further improve the clarity of EU-SILC data.

The paper has been drafted as follows: Section 2 presents a short background note on the concept of poverty and social exclusion as well as the policy context of EU-SILC data. Section 3 presents the general layout of the EU-SILC production database, which stores both the target variables provided to Eurostat by the National Competence Authorities of the participating countries along with some derived variables calculated by Eurostat. Section 4 includes separate descriptions for all datasets published in Eurobase under the 'Income and Living conditions' node of the dissemination tree. All descriptions follow a standard layout with a short description of the dataset, its specific policy context, a short overview of the calculation method using references for the target or/and derived variables where necessary, etc.

2 Short background and overview of policy context of EU-SILC data

2.1 The concept of social exclusion

The invention of the term social exclusion is usually attributed to Rene Lenoir, then Secretary of State for Social Action in the Chirac government, who published *Les Exclus: Un Francais sur dix*, in 1974. Lenoir's excluded social groups that include a wide variety of people: not only the poor, but also handicapped, suicidal and aged people, abused children, substance abusers, etc. – about 10 per cent of the French population. All were social categories unprotected under social insurance. The term gained popularity in France during the 1980s, the period of economic crisis and restructuring, the crisis of the welfare state, and various social and political crises. The term exclusion was used to refer to various types of social disadvantage, related to the new social problems that arose: unemployment, ghettoisation and fundamental changes in family life. Old welfare state provisions were thought incapable of dealing with these problems, and new social policies were developed.

From France, the discourse of exclusion rapidly spread across the rest of Europe. In 1989, the Council of Ministers of Social Affairs of the European Community passed a resolution to fight 'social exclusion' and to foster integration and a 'Europe of Solidarity'. The European Commission's 1994 White Paper, 'Growth, competitiveness, employment' called for fighting exclusion and 'the poverty which so degrades men and women and splits society in two'

The EU commitment to fighting social exclusion was confirmed with the formation of 'The European Community Household Panel (ECHP)' a pioneering data collection instrument. Launched on a gentleman's agreement basis in 1994 it expired in 2001. However the political scene has changed, notably with the introduction of an open method of coordination in the

fields of social inclusion and pensions reform. Other important changes included enlargement of the EU from 15 to 25 states (and demands for coverage of other neighbouring countries), and the publication by the United Nations expert group on household income statistics of a detailed report and recommendations.

In recognition of these changes, the ECHP is being progressively replaced with data collection under the EU-SILC regulations (no. 1177/2003 Community Statistics on Income and Living Conditions). Seven countries launched a preliminary version of EU-SILC in 2003. The project is formally launched in 2004 and EU25 coverage started from 2005. After 2007, when regulations became fully applicable, EU-SILC becomes the reference source of statistics on income and social exclusion in the European Union.

2.2 The EU's 2020 targets and EU-SILC

Following the drafting of a series of European constitutional treaties to consolidate all previous EU agreements and treaties, the Treaty of Lisbon was signed in 2007. The Lisbon Treaty confirmed the power of the EU to act in areas such as human rights, judicial and foreign policy, and re-emphasised the idea that every citizen of a member state is also an EU citizen. Article 2 of the Treaty lists the values that should conduct EU's common actions: "The Union is founded on the values of respect for human dignity, freedom, democracy, equality, the rule of law and respect for human rights, including the rights of persons belonging to minorities. These values are common to the Member States in a society in which pluralism, non discrimination, tolerance, justice, solidarity, and equality between women and men prevail." Article 3 lists the objectives." The Union's aim is to promote peace, its values and the well-being of its people." Income levels as well as the living conditions are some of the pre-conditions to being able to engage in and contribute to society.

The Lisbon Treaty makes clear what the Member States have agreed to achieve by 2010. At the European Council held in June 2010 the EU member states endorsed a new 10-year strategy (following the Lisbon Strategy for the period 2000-2010) for reviving the economy of the European Union known as the Europe 2020 strategy. The Council confirmed five headline targets to constitute shared objectives guiding the action of member states and the Union as regards promoting employment, improving the conditions for innovation, research and development, meeting the EU climate change and energy objectives, improving educational levels, and "promoting social inclusion in particular through the reduction of poverty". This fifth headline target focuses on lifting at least 20 million people out of risk of poverty and social exclusion. Progress towards this target for the Union as a whole will be monitored on the basis of a measure of the target population that incorporates three indicators (at-risk-of poverty, material deprivation, and jobless household), using data from EU-SILC, but Member States are free to set national targets on the basis of the most appropriate indicators, taking into account their national circumstances and priorities.

Looking at each element in turn, the at-risk-poverty distinguishes persons living in households with less than 60% of the national median (equivalised) income – in other words it is the most widely-used of the relative income poverty measures in the Laeken set. The nine items included in the common material deprivation indicator adopted in 2009 capture the second element, severe material deprivation. This indicator employs a threshold of 4, counting only those reporting at least 4 out of 9 deprivation items as severely deprived. The component relating to household joblessness is based on the "work intensity" indicator, based on the number of months spent at work over the previous 12 months period by household members aged 18 to 64 excluding dependent children. A threshold of 20% has been adopted

to distinguish "low" work intensity, in other words those in households where (relevant) members were in work for a fifth or less of the available time in aggregate in the year.

The way these three indicators are combined to identify the target group is then that meeting any of the three criteria – being either below the 60% median disposable income threshold, at or above the severe material deprivation threshold of 4, or in a household with work intensity below 20% threshold – suffices. In the EU as a whole, the agreed target is to lift at least 20 million of these people out of "the risk of poverty and exclusion".

It is worth noting that when the idea of poverty reduction target was first mooted in concrete form by the President of the European Commission earlier in 2010, the focus was on those "at risk of poverty" as captured simply by the relative poverty measure. This has been the most prominent among the Social Inclusion Process indicators since they were adopted in Laeken. And indeed had been previously used at EU level as a basis for the most widely quoted headline numbers on poverty in the EU. With 80 million people in the European Union "at risk of poverty" on this basis in 2008, the initial proposal was for a target of reducing this by one-fifth, or 20 million persons. However various member states were not satisfied with the initial proposal and the formulation eventually agreed is significantly different. Most obviously, the size of the target group is 50% greater but the reduction in numbers to be aimed for is still 20 million, so the target is much less ambitious in that sense - involving a reduction of one-sixth rather than one - quarter in the number at risk of poverty and exclusion. In addition, though, expanding the indicators beyond the relative income poverty to include material deprivation and household joblessness has a significant impact on which persons and types of person are to be included in the target group. Countries are free to make use of national indicators and to take national priorities into account in designing their own targets and policies, but have to be in a position to demonstrate how these will contribute to the achievement of the overall EU - wide target. The way the target population is identified thus potentially has major implications for the policies and strategies implemented at national and EU level, and merits serious considerations.

3 Part 1 – General Methodology

3.1 Input data and the structure/organization of production database

3.1.1 Main characteristics of EU-SILC

EU-SILC is organised under a framework regulation and is thus compulsory for all EU Member States. EU-SILC is based on the idea of a "common framework" in contrast with the concept of a "common survey". The common framework is defined by harmonised lists of target primary (annual) and secondary (every four years or less frequently) variables, by a recommended design for implementing EU-SILC, by common requirements (for imputation, weighting, sampling errors calculation), common concepts (household and income) and classifications (ISCO, NACE, ISCED) aiming at maximising comparability of the information produced. The common framework is defined in the legislative background of the project, the Council and European Parliament framework Regulation, and the implementing Commission Regulations.

SILC provide two types of annual data:

• Cross-sectional data pertaining to a given time or a certain time period with variables on income, poverty, social exclusion and other living conditions, and

• Longitudinal data pertaining to individual-level changes over time, observed periodically over a four year period.

3.1.2 Primary, secondary and key variables

There are two kinds of variables in EU-SILC: the primary and secondary variables.

3.1.2.1 Primary variables

The primary variables are collected every year, the domains and areas covered by the survey are listed below and are collected at two different levels, the household and the individual level:

• Household level:

BASIC DATA (B)	Basic household data
INCOME (Y)	Total household income (gross and disposable)
	Gross income components at household level
	Dwelling type, tenure status and housing conditions
HOUSING (H)	Amenities in dwelling
	Housing costs
	Housing and non-housing related arrears
Social Exclusion (S)	Non-monetary household deprivation indicators, including problems in making ends meet, extent of debt and enforced lack of basic necessities
	Physical and social environment

◆ Personal level:

Basic Data (B)	Basic personal data
	Demographic data
Education (E)	Current education and highest ISCED level attained
Labour Information (L)	Basic labour information on current and past activity status and on current job, including information on last main job for previously

	active people
	Basic information on current activity status during income reference period
	Total number of hours worked on current second/third jobs
	Detailed labour information
	Activity history
	Calendar of activities
Health (H)	Health, including health status and chronic illness or condition
	Access to health care
INCOME (Y)	Gross personal income, total and components at personal level

Following the structure of the main database, the different variables are distributed in four different files:

- Household Register (D)
- Personal Register (R)
- Household Data (H)
- Personal Data (P)

The household register file (D) must contain every household (selected + substituted + split off (longitudinal only)), also those where the address could not be contacted or which could not be interviewed.

In the other files records related to a household will only exist if the household has been contacted (DB120 = 11 (or DB110 = 1)) AND has a completed household interview in the household data file (H) (DB130 = 11) AND at least one member has complete data in the personal data file (P) (RB250 = 11, 12 or $13 \Rightarrow DB135 = 1$). This member must be the selected respondent (RB245 = 2) if this mode of selection is used.

The personal register file (R) must contain a record for every person currently living in the household or temporarily absent. In the longitudinal component (initial household) this file must contain also a record for every person moved out or died since previous wave and for every person who lived in the household at least three months during the income reference period and was not recorded otherwise in the register of this household.

The personal data file (P) must contain a record for every eligible person (RB245 = 1, 2 or 3) for whom the information could be completed from interview and/or registers (RB250 = 11, 12 or 13).

3.1.2.2 Secondary Variables

Secondary variables are collected every five years or less frequently in the so-called ad-hoc modules. They include information either at household or personal level about specific topics. Over time, the following topics have been addressed:

Module	Торіс
2013	Well-being
2012	Housing conditions
2011	Intergenerational transmission of disadvantages
2010	Intra-household sharing resources
2009	Material deprivation
2008	Over-indebtedness and financial exclusion
2007	Housing conditions
2006	Social participation
2005	Intergenerational transmission of poverty

3.1.2.3 Supplementary variables on Material Deprivation

Based on ESS agreement, a pilot data collection on material deprivation (MD) is to be implemented in SILC in 2013. A list of supplementary - compulsory and optional variables – has been specified to be collected under this pilot data collection.

Taking into account the outcomes of the analysis of the results of the 2013 pilot data collection of MD variables and in the context of the comprehensive revision of the EU-SILC legal basis, the new MD variables are expected to be collected on a regular basis from 2016 onwards.

3.1.2.4 Key variables

The four D, H, R and P files have to be adequately linked:

All observation from P file must have a univocal link to the three other files.

All observations from R file must have a univocal link to a D file observation.

All observations from H file must have a univocal link to a D file observation.

For that purpose, the variables:

- 'COUNTRY': DB020, RB020, HB020 and PB020
- 'Household ID': DB030 and HB030 and RB040* (* only longitudinal)
- 'Personal ID': RB030 and PB030.

are used as key variables.

Note that Personal ID is constructed with Household ID and two more digits.

In the longitudinal survey Household ID and Personal ID never change, even not when the person moves to another household.

On the contrary, in the cross-sectional survey, from one year to the other the Household ID and Personal ID may change. No links are needed between the split-off household and the initial household.

For longitudinal files, the link between R and D files is done with the variables RB040 and DB030. In case of split-off household, the people who leave the initial household will have two observations in the R file. The first one linked to the initial household and the second one linked to the new (split-off) household. As his personal ID cannot change and is still

constructed with the original Household ID, we need this second variable to link the split-off H-observation to the split-off R- observation.

3.1.3 Database schema

The following graph is a visual presentation of the EU-SILC <u>cross-sectional</u> data flow. It is also an overview of the architecture of the databases where the data are stored and compiled before publication in Eurobase (previously known as New Cronos) or provision of the anonymized micro-data to researchers (UDB).

The Competence National Authorities (CNAs) transmit four CSV files to Eurostat, i.e. the pre-specified D-, H-, R- and P-data files.

- 1. The four CSV files (per country and per year) are checked and converted into SAS files for loading into the 'Raw datasets' database
- 2. The four SAS files (per country and per year) are validated and loaded into the Base Database (BDB). BDB thus stores EU-SILC primary and secondary variables as defined in the Regulations.
- 3. Preparation of data for Eurobase (previously known as New Cronos)
 - a. Calculation of indicators using the SAS files stored in BDB. Load the calculated indicators (one SAS file per year for all countries) in IDB
 - b. Load separate SAS files per indicator in RDB and RDB2
 - c. Update Eurobase (previously known as New Cronos) using the SAS files in RDB and RDB2
- 4. Preparation of anonymized micro-data for User Database (UDB)
 - a. Use SAS files stored in BDB and indicators stored in IDB to produce four (D-, H-, R- and P-data) SAS files. The latter set of files is stored in PDB.
 - b. Use the SAS files stored in PDB to upload four files per year in UDB.



SDS = SAS Dataset C = CountryY = Year

3.2 List of EU-SILC Variables and datasets with definitions

3.2.1 Primary target variables

Listed below the variables contained in D, R H and P file and used for the calculation of SILC indicators presented in this paper. In the field 'Files' of each variable is indicated if the variables are part of the longitudinal files (L), cross- sectional files (X) or both (X-L)

For more extended coverage of what is included in the four files please consult the document 'Operation Guidelines' (Doc065) for the respective operation year available on <u>CIRCABC</u>.

Variable	Files	Code
HOUSEHOLD REGISTER (D-FILE)		
Year of the survey	X-L	DB010
Country	X-L	DB020
Household ID	X-L	DB030
Region	X-L	DB040
Degree of urbanization	X-L	DB100
Household interview acceptance	X-L	DB135
HOUSEHOLD DATA (H	-FILE)	·
Year of the survey	X-L	HB010
Country	X-L	HB020
Household ID	X-L	HB030
Month of household interview	X-L	HB050
Flag-Month of household interview	X-L	HB050_F
Year of household interview	X-L	HB060
Flag- Year of household interview	X-L	HB060_F
Tenure status	X-L	НН020
Flag- Tenure status	X-L	HH020_F
Tenure status	X-L	HH021
Flag- Tenure status	X-L	HH021_F
Leaking roof, damp walls/florrs/foundation, or rot in window frames or floor	X-L	НН040
Ability of the household to pay for keeping its home adequately warm	X-L	НН050
Flag- Ability of the household to pay for keeping its home adequately warm	X-L	HH050_F
Current rent related to occupied dwelling	X-L	НН060
Total housing cost	Х	НН070
Bath or shower in dwelling	X-L	HH080/HH081
Flag- Bath or shower in dwelling	X-L	HH081_F
Indoor flushing toilet for sole use of household	X-L	HH090/HH091
Flag- Indoor flushing toilet for sole use of household	X-L	HH091_F

Variable	Files	Code
Arrears on mortgage or rent payments	X-L	HS010
Flag- Arrears on mortgage or rent payments	X-L	HS010_F
Arrears on mortgage or rent payments	X-L	HS011
Flag- Arrears on mortgage or rent payments	X-L	HS011_F
Utility bills	X-L	HS020
Flag- Utility bills	X-L	HS020_F
Utility bills	X-L	HS021
Flag- Utility bills	X-L	HS021_F
Hire purchase instalments or other loan payments	X-L	HS030
Flag- Hire purchase instalments or other loan payments	X-L	HS030_F
Hire purchase instalments or other loan payments	X-L	HS031
Flag- Hire purchase instalments or other loan payments	X-L	HS031_F
Capacity to afford paying for one week's annual holiday away from home	X-L	HS040
Flag- Capacity to afford paying for one week's annual holiday away from home	X-L	HS040_F
Capacity to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day	X-L	HS050
Flag- Capacity to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day	X-L	HS050_F
Capacity to face unexpected financial expenses	X-L	HS060
Flag- Capacity to face unexpected financial expenses	X-L	HS060_F
Household cannot afford a telephone	X-L	HS070
Flag- Household cannot afford a telephone	X-L	HS070_F
Household cannot afford a colour TV	X-L	HS080
Flag- Household cannot afford a colour TV	X-L	HS080_F
Do you have a computer?	X-L	HS090
Household cannot afford a washing machine	X-L	HS100
Flag- Household cannot afford a washing machine	X-L	HS100_F
Household cannot afford a car	X-L	HS110
Flag- Household cannot afford a car	X-L	HS110_F

Variable	Files	Code
Ability to make ends meet	X-L	HS120
Financial burden of the total housing cost	X-L	HS140
Financial burden of the repayment of debts from hire purchases or loans	X-L	HS150
Problems with the dwelling: too dark, not enough light	Х	HS160
Noise from neighbours or from street	Х	HS170
Pollution, grime or other environmental problems	Х	HS180
Crime violence or vandalism in the area	Х	HS190
Total disposable household income	X-L	HY020
Flag- Total disposable household income	X-L	HY020_F
Total disposable household income before social transfers other than old age and survivor's benefits	X-L	НҮ022
Flag-Total disposable household income before social transfers other than old age and survivor's benefits	X-L	HY022_F
Total disposable household income before social transfers including old age and survivor's benefits	X-L	НҮ023
Flag-Total disposable household income before social transfers including old age and survivor's benefits	X-L	HY023_F
Within-household non-response inflation factor	X-L	HY025
Flag- Within- household non-response inflation factor	X-L	HY025_F
Family/Children related allowances	X-L	HY050G/HYO50N
Flag- Family/Children related allowances	X-L	HY050G_F/HYO50 N_F
Social exclusion not elsewhere classified	X-L	HY060G/HY060N
Flag- Social exclusion not elsewhere classified	X-L	HY060G_F/HY060 N_F
Housing allowances	X-L	HY070G/HY070N
Flag- Housing allowances	X-L	HY070G_F/HY070 N_F
Regular inter-household cash transfer received	X-L	HY080G/HY080N
Interest, dividends, profit from capital investments in unincorporated business	X-L	HY090G/HY090N
Flag- Interest, dividends, profit from capital investments in unincorporated business	X-L	HY090G_F/HY090 N_F

Variable	Files	Code
Interest repayments on mortgage	X-L	HY100G/HY100N
Flag- Interest repayments on mortgage	X-L	HY100G_F/HY100 N_F
PERSONAL DATA (P-I	FILE)	
Year of the survey	X-L	PB010
Country	X-L	PB020
Personal ID	X-L	PB030
Personal cross-sectional weight	Х	PB040
Personal base weight for selected respondent	L	PB080
Sex	X-L	PB150
Spouse/partner ID	X-L	PB180
Country of birth	Х	PB210
Citizenship	Х	PB220A
Highest ISCED level attained	X-L	PE040
General health	X-L	PH010
Actively looking for a job	X-L	PL020
Available for work	X-L	PL025
Self-defined current economic status	X-L	PL030
Self-defined current economic status	X-L	PL031
Status in employment	X-L	PL040
Occupation (ISCO – 88)	X-L	PL050
Occupation (ISCO – 08)	X-L	PL051
Number of hours worked per week in main job	X-L	PL060
PL070		PL070
PL072		PL072
Number of months spent at full-time work as employee	X	PL073
Number of months spent at part-time work as employee	X	PL074
Number of months spent at full-time work as self- employed (including family worker)	Х	PL075
Number of months spent at part-time work as self- employed (including family worker)	X	PL076

Variable	Files	Code
Number of months spent in unemployment	Х	PL080
Number of months spent in retirement or early retirement	X	PL085
Number of months spent as disabled or/and unfit to work	Х	PL086
Number of months spent studying	Х	PL087
Number of months spent in compulsory military service	Х	PL088
Number of months spent in fulfilling domestic tasks and care responsibilities	Х	PL089
Number of months spent in other inactivity	Х	PL090
Total number of hours usually worked in second, third jobs	X	PL100
Flag-Total number of hours usually worked in second, third jobs	X	PL100_F
Type of contract	X-L	PL140
Employee income or near cash income	X-L	PY010G/PY010N
Non-cash employee income	X-L	PY020G/PY020N
Cash benefits or losses from self-employment	X-L	PY050G/PY050N
Pension from individual private plans	X-L	PY080G/PY080N
Flag-Pension from individual private plans	X-L	PY080G_F/PY080N _F
Old age benefits	X-L	PY100G/PY100N
Survivor benefits	X-L	PY110G/PY110N
PERSONAL REGISTER (R-FILE)		
Year of the survey	X-L	RB010
Country	X-L	RB020
Personal ID	X-L	RB030
Year of immigration	X-L	RB031
Cross sectional weight	Х	RB050
Personal base weight	L	RB060
Longitudinal weight (two – year duration)	L	RB062
Longitudinal weight (three – year duration)	L	RB063

Variable	Files	Code
Longitudinal weight (four – year duration)	L	RB064
Month of birth	X-L	RB070
Flag- Month of birth	X-L	RB070_F
Year of birth	X-L	RB080
Flag- Year of birth	X-L	RB080_F
Sex	X-L	RB090
Flag- Sex	X-L	RB090_F
Father ID	X-L	RB220
Flag-Father ID	X-L	RB220_F
Mother ID	X-L	RB230
Flag-Mother ID	X-L	RB230_F
Spouse/Partner ID	X-L	RB240
Flag- Spouse/Partner ID	X-L	RB240_F
Respondent status	X-L	RB245
Flag- Respondent status	X-L	RB245_F
Data status	X-L	RB250
Flag- Data status	X-L	RB250_F
Education at pre – school	Х	RL010
Education at compulsory school	Х	RL020
Child care at centre – based services	Х	RL030
Child care at day – care centre	Х	RL040
Child care by a professional child-minder at child's home or at child-minder's hom	X	RL050
Child care by grand-parents, others household members (outside parents), other relatives, friends or neighbours	Х	RL060
Children cross-sectional weight for child care	X	RL070

3.2.2 Derived Variables

Besides the target variables, the EU-SILC production database includes additional indicators that have been calculated based on the target variables. These derived variables have been calculated to ease the statistical exploitation of data and have been used as input in the calculations of the indicators/datasets published by Eurostat. In the following paragraphs we

describe the method used for the computation of the derived variables. Reference is made to the target variables used in these calculations. Description of the algorithms used for their computation is also provided, basically in the form of flow charts. These algorithms have been implemented in SAS software. Specific reference to the name of the particular SAS program is also provided at the end of each section.

3.2.2.1 Age

In the EU-SILC regulations, age is defined as the age calculated at the end of the income reference period. However, data collection often occurs a few months after the end of the income reference period, so household composition is captured at the time of interview. Consequently, household members who have died between the end of the income reference period and the time of the survey data collection are not registered and babies born in this interval will be recorded with negative age at the end of the income reference period is reconstructed.

The algorithm calculating age uses the following relevant basic SILC variables: DB010 (year of the survey – in D file), RB070 (month of birth), RB080 (year of birth), HB050 (month of household interview), HB060 (year of household interview).

Europe. The material deprivation broad categories (deprived, severe deprivation, extreme deprivation) are based on the number of items people lack out of a list of nine material depriva

a) All countries (except Ireland and United Kingdom)

$$AGE = DB010 - RB080 - 1$$

b) For Ireland

$$AGE = f look(\frac{(HB060 - RB080) \times 12 + HB050 - RB070}{12})$$

c) For United Kingdom

$$AGE = f \, loot(\frac{(HB060 - RB080) \times 12 + HB050 + 6 - RB070}{12})$$

Note: If AGE=-1 age is set to AGE=0	
SAS program: idb_calculation.sas	

3.2.2.2 Highest level of education of children's parents (HHISCED)

Highest educational level of children's parents refers to children (persons aged 0-18) living in a household with one or both parents and to the highest level of education attained by (at least one of) the parents. Data are classified according to the International Standard Classification of Education (ISCED): low education corresponds to ISCED levels 0-2 (pre-primary, primary and lower secondary education); medium education corresponds to ISCED levels 3 and 4 (upper secondary and post-secondary non-tertiary education) and high education corresponds to ISCED levels 5 and 6 (tertiary education).

The algorithm for highest educational level of children's parents uses the following basic SILC variables: FPE040 (highest ISCED level attained by the father) and MPE040 (highest ISCED level attained by the mother).

The highest level of education of children's parents calculation is described below.

if FPE040 >= MPE040 then Highest educational level of children's parents = FPE040 if MPE040 >= FPE040 then Highest educational level of children's parents = MPE040 Otherwise the Educational level of children's parents is missing.

SAS program: VAR_HHISCED.sas

3.2.2.3 Equivalised Household size (EQ_SS)

The algorithm for equivalised household size uses the following auxiliary variables:

Symbol	Variable	Туре
hm13	Number of household members aged 13 or less	Constructed
hm14	Number of household members aged 14 and over	Constructed
SUM_hm13	The total number of household members (at household level) with age 13 or less	Constructed
SUM_hm14	The total number of household members (at household level) with age 14 and over	Constructed

The calculation of variables hm13 and hm14 are described below.



The calculation of the Equivalised household size (EQ_SS) is described below. $EQ_SS = 1 + 0.5 \times (sum hm14 - 1) + 0.3 \times sum hm13$

SAS program: idb_calculation.sas, VAR_EQ_SS.sas

3.2.2.4 Equivalised disposable Income (EQ_INC)

Equivalised disposable income (EQ_INC) is the total income of a household that is available for spending or saving, divided by the number of household members converted into equivalised adults; household members are equivalised or made equivalent by the following so-called modified OECD (Organisation for Economic Co-operation and Development) equivalence scale:

- the first household member aged 14 years or more counts as 1 person
- each other household member aged 14 years or more counts as 0.5 person
- each household member aged 13 years or less counts as 0.3 person.

The algorithm for equivalised disposable income uses the following auxiliary variables:

Symbol	Variable	Туре
PY80	Pension from individuals private plans	Constructed
SUM_PY80	The sum of pensions from individuals private plans at	Constructed

	household level before 2009	
SUM_PY080G	The sum of pensions from individuals private plans at household level after 2008	Constructed
EQ_SS	Equivalised household size	Constructed

The calculation of variables PY80, SUM_PY80 and SUM_PY080G are described below.

i. PY80



ii. SUM_PY80

The sum of pensions from individuals private plans at household level for years before 2009 is recorded in variable SUM_PY80 and is calculated as follows:

if
$$DB010 < 2009$$
 then $SUM_PY80 = \sum_{i} PY80$

iii. SUM_PY080G

The sum of pensions from individuals private plans at household level for years after 2008 is recorded in variable SUM_PY080G and is calculated as follows:

if
$$DB010 > 2008$$
 then $SUM_PY080G = \sum_i PY080G$

The Equivalised disposable income calculation (EQ_INC20, EQ_INC22, EQ_INC23) is described below. From 2011 operation onwards, pensions from individual's private plans at household level (PY080G) are treated as a component of property income, and should be included in the total disposable household income (HY020). The same applies for total disposable income before social transfers (excluding old-age and survivor's benefits/pensions) (EQ_INC22) and total disposable income before social transfers (including old-age and survivor's benefits/pensions) (EQ_INC23).

a) Equivalised disposable income after social transfers (EQ_INC20)

if
$$DB010 > 2010$$
 then $EQ_INC20 = \frac{HY020 \times HY025}{EQ_SS}$

b) Equivalised disposable income before social transfers (excluding old-age and survivor's benefits/pensions) (EQ_INC22)

c) Equivalised disposable income before social transfers (including old-age and survivor's benefits/pensions) (EQ INC23)

The Equivalised disposable income calculation (after social transfers) without total housing cost (EQ_INC20hc) is presented below. For its calculation we make use of the Total housing cost (HH070).

d) Equivalised disposable income (after social transfers) without total housing cost (EQ_INC20hc)

$$\begin{array}{ll} if \quad DB010 > 2008 \quad then \quad EQ_INC20hc = \frac{(HY020 + SUM_PY080G) \times HY025 - (12 \times HH070)}{EQ_SS} \\ if \quad DB010 < 2009 \quad then \quad EQ_INC20hc = \frac{(HY020 + SUM_PY080) \times HY025 - (12 \times HH070)}{EQ_SS} \\ if \quad DB010 > 2010 \quad then \quad EQ_INC20hc = \frac{HY020 \times HY025 - (12 \times HH070)}{EQ_SS} \\ \end{array}$$

In the above calculations we make use of the Equivalised Household size (EQ_SS).

Note: All calculations have been made in both Euros (Euro (from 1.1.1999)/ECU (up to 31.12.1998)) and PPP.

SAS program: VAR_HY20_EQ_INCXX.sas, idb_calculation.sas, VAR_EQ_SS.sas

3.2.2.5 Adjusted cross sectional weight (RB050a)

Symbol	Variable	Туре

hm13	Number members ag	of ed 13	household or less	Constructed
hm14	Number members ag	of ed 14	household and over	Constructed

The weight is corrected within the same strata when applicable, by calculating the product of the base variable RB050 with the ratio between the sum of weights of all household members, in households with interview accepted for database (DB135 = 1), and the sum of all household members used in the calculation of equivalised disposable income (Equivalised Household size (EQ_SS)).

$$weight'_{j} = RB050a_{j} = \frac{\sum_{\forall i_where_DB135=1} RB050i}{\sum_{\forall i_HY020_F \ge 0_and_HY022_F \ge 0_and_HY023_F \ge 0_and_(hm14 \neq 0_or_hm13 \neq 0)} \cdot RB050_{j}$$

SAS program: VAR_RB050a.sas

3.2.2.6 Median Equivalised disposable Income after social transfers (MEDIAN20)

Persons have to be sorted according to their Equivalised disposable Income (EQ_INC) (after social transfers) (sorting order: lowest to highest value, household identification number and personal identification number).

The median is then calculated as:

$$EQ_INC20_{MEDIAN} = \begin{cases} \frac{1}{2} (EQ_INC20_{j} + EQ_INC20_{j+1}), & \text{if } \sum_{i=1}^{j} RB050a_{i} = \frac{1}{2} \sum_{i=1}^{n} RB050a_{i} \\ EQ_INC20_{j+1}, & \text{if } \sum_{i=1}^{j} RB050a_{i} < \frac{1}{2} \sum_{i=1}^{n} RB050a_{i} < \sum_{i=1}^{j+1} RB050a_{i} \end{cases}$$

where

 $EQ_{INC20_i} = Equivalised disposable Income (EQ_{INC}) (after social transfers) of person i RB050a_i = is the Adjusted cross sectional weight (RB050a)$

for person i

n = number of household members in the sample

Note: Households (and persons therein) with missing equivalised disposable income (EQ_INC20) are excluded. The median is calculated on the level of the individuals in the sample.

SAS program: VAR_ARPTXX.sas

3.2.2.7 Median Working Income (MEDIAN_INCWRK)

Persons have to be sorted according to their Working Income (INCWRK) (sorting order: lowest to highest value, household identification number and personal identification number).

The median is then calculated as:

$$INCWRK_{MEDIAN} = \begin{cases} \frac{1}{2}(INCWRK_{j} + INCWRK_{j+1}), & \text{if } \sum_{i=1}^{j} PB040_{i} = \frac{1}{2}\sum_{i=1}^{n} PB040_{i} \\ INCWRK_{j+1}, & \text{if } \sum_{i=1}^{j} PB040_{i} < \frac{1}{2}\sum_{i=1}^{n} PB040_{i} < \sum_{i=1}^{j+1} PB040_{i} \end{cases}$$

where

INCWRK_i = Working Income (INCWRK) of person i

n = number of persons (household members)

 $PB040_i$ = is the personal cross – sectional weight for person i

3.2.2.8 Median Pension Income (MEDIAN_INCPEN)

Persons have to be sorted according to their Pension Income (INCPEN) (sorting order: lowest to highest value, household identification number and personal identification number). The median is then calculated as:

$$INCPEN_{MEDIAN} = \begin{cases} \frac{1}{2}(INCPEN_{j} + INCPEN_{j+1}), & \text{if } \sum_{i=1}^{j} PB040_{i} = \frac{1}{2}\sum_{i=1}^{n} PB040_{i} \\ INCPEN_{j+1}, & \text{if } \sum_{i=1}^{j} PB040_{i} < \frac{1}{2}\sum_{i=1}^{n} PB040_{i} < \sum_{i=1}^{j+1} PB040_{i} \end{cases}$$

where

INCPEN_i = Pension Income (INCPEN) of person i

n = number of persons (household members)

 $PB040_i$ = is the personal cross – sectional weight for person i

3.2.2.9 Mean Equivalised disposable Income after social transfers (MEAN20)

The mean of the Equivalised disposable Income (EQ_INC) (after social transfers) for the total number of household members in the sample is calculated as

$$EQ_INC20_{MEAN} = \frac{\sum_{i=1}^{n} EQ_INC20_{i} \cdot RB050a_{i}}{\sum_{i=1}^{n} RB050a_{i}}$$

where

 $EQ_{INC20_i} = Equivalised disposable Income (EQ_{INC}) (after social transfers) of person i RB050ai = is the Adjusted cross sectional weight (RB050a)$

for person i

n = number of household members in the sample

Note: Households (and persons therein) with missing equivalised disposable income (EQ_INC20) are excluded. The mean is calculated on the level of the individuals in the sample.

SAS program: VAR_ARPTXX.sas

3.2.2.10 **Risk of poverty threshold (ARPTXX)**

The at-risk-of-poverty threshold is calculated as the XX percentage of the median or mean value of the Equivalised disposable Income (EQ INC) after social transfers (EQ INC20).

 $ARPTXX = XX\% \cdot EQ_INC20_{Median}$

 $ARPTMXX = XX\% \cdot EQ_INC20_{Mean}$

The usual definition defines at-risk-of-poverty threshold as 60% of the equivalised median income after social transfers so the value ARPT60 threshold is the most commonly used. Different thresholds (ARPT40, ARPT50, ARPT70, ARPTM40, ARPT50, ARPT60) are also calculated to derive different poverty rates.

SAS program: VAR ARPTXX.sas

3.2.2.11 **Activity Status (ACTSTA)**

For each household member aged 16 and over, the number of months in each status during the income reference period is counted. The following activity statuses will be considered:

- TOT Total number of months spent in any status during the reference period POP
- Number of months spent in work for employed persons EMP
- SAL Number of months spent in work for employees
- **NSAL** Number of months spent in work for employed persons except employees
- UEMP Number of months spent in unemployment
- RET Number of months spent in retirement
- INAC OTH Number of months spent as 'other inactive' (in education or training, doing housework, looking after children or other persons; in community or military service; other economically inactive)

The calculation of the current activity status of the respondent depends on the year of survey and more specifically if it is before or after 2008.

For surveys after 2008 (DB010>2008) •

For each household member the following variables will be selected: PL073, PL074, PL075, PL076, PL080, PL085, PL086, PL087, PL088, PL089, PL090.

The following derived variables will be constructed:

TOT= PL073+PL074+PL075+PL076+PL080+PL085+PL086+PL087+PL088+PL089+PL090 SAL= PL073+PL074 NSAL= PL075+PL076 UNEMP=PL080 RET = PL085

INAC OTH= PL086+PL087+PL088+PL089+PL090

The respondent is being excluded if the total number of months spent in any activity is less than seven (TOT<7). For the rest of the respondents that have reported for more than six months the activity status is calculated as follows:

if
$$\frac{SAL}{TOT} > 0.5$$
 then Activity status = 2
if $\frac{NSAL}{TOT} > 0.5$ then Activity status = 3

if
$$\frac{UNEMP}{TOT} > 0.5$$
 then Activity status = 5

if
$$\frac{RET}{TOT} > 0.5$$
 then Activity status = 6

Otherwise the Activity status is missing.

• For surveys before 2009 (DB010<2009)

For each household member the following variables will be selected: PL070, PL072, PL080, PL085, PL087, PL090.

The following derived variables will be constructed:

TOT= PL070+PL072+PL080+PL085+PL087+PL090

EMP= PL070+PL072

UNEMP= PL080

RET= PL085

INAC OTH=PL087+PL090

The respondent is being excluded if the total number of months spent in any activity is less than seven (TOT<7). For the rest of the respondents that have reported for more than six months the activity status is calculated as follows:

 $if \quad \frac{EMP}{TOT} > 0.5 \quad then \quad Activity \quad status = 1$ $if \quad \frac{UNEMP}{TOT} > 0.5 \quad then \quad Activity \quad status = 5$ $if \quad \frac{RET}{TOT} > 0.5 \quad then \quad Activity \quad status = 6$ $if \quad \frac{INAC_OTH}{TOT} > 0.5 \quad then \quad Activity \quad status = 7$

Otherwise the Activity status is missing.

For the 'in work poverty risk indicators', an individual is considered as having a particular activity status if he/she has spent more than half of the reference year in that status. For the pensions indicator 'aggregate replacement ration' only persons who have spent the total reported time in the relevant activity status are considered.

SAS program: VAR_ACTSTA.sas

3.2.2.12 Household types (HHTYP)

The following household types will be considered:

- TOTAL Total (HHTYP=1-13)
- A1 Single Person (HHTYP=1-5)
- A1_LT65 One adult younger than 65 (HHTYP=1,2)
- A1_GE65 One adult older than 65 (HHTYP=3,4)
- A1_DCH Single person with dependent children (HHTYP=9)
- A1M Single male (HHTYPE=1,3)
- A1F Single female (HHTYP=2,4)
- A2 Two adults (HHTYP=6,7)
- A2_2LT65 Two adults, no dependent children, younger than 65 years (HHTYP=6)
- A2_GE1_GE65 Two adults, no dependent children, at least one adult 65 years or more (HHTYP=7)
- A2_1DCH Two adults with one dependent child (HHTYP=10)
- A2_2DCH Two adults with two dependent children (HHTYP=11)
- A2_GE3DCH Two adults with three or more dependent children (HHTYP=12)
- A_GE2_NDCH Two or more adults without dependent children (HHTYP=6-8)
- A_GE2_DCH Two or more adults with dependent children (HHTYP=10-13)
- A_GE3 Three or more adults, no dependent children (HHTYP=8)
- A_GE3_DCH Three or more adults with dependent children (HHTYP=13)
- HH_NDCH Households without dependent children (HHTYP=1-8)
- HH_DCH Households with dependent children (HHTYP=9-13)
- UNK Others (not possible to determine type) (HHTYP=16)

The calculation of the household type variable for the respondent uses the following auxiliary variables.

Symbol	Variable	Туре
HT_D	Number of dependent children in the household	Constructed
HT_A	Number of adults in the household	Constructed
SHTD	Total number of dependent children in the household	Constructed
SHTA	Total number of adults in the household	Constructed
SRB30	The number of Personal IDs (RB030)	Constructed

The calculation of the household type variable (HHTYP) for the respondent depends on the concepts of the adult and dependent child. Below we describe graphically the algorithm dividing respondents to adults or dependent children.

The variables HT_D and HT_A are used to define a respondent as dependent child or an adult respectively.



The variables HT_D and HT_A are used to derive the auxiliary variables SHTD (SHTD=sum (HT_D)) and SHTA (SHTA=sum (HT_A)), which describe the total number of dependent children and the total number of adults in household level. These auxiliary variables are used for the calculation of the variable household type (HHTYP).



SAS program: VAR_HT_NADU_NDCH.sas, VAR_HT1.sas

3.2.2.13 Inter – Quantile interval

Dividing ordered data into q essentially equal-sized data subsets is the motivation for q - quantiles; the q - quantiles are the data values marking the boundaries between consecutive subsets. Put another way, the kth q – quantile for a random variable is the value x such that the probability that the random variable will be less than x is at most k/q and the probability that the random variable will be more than x is at most (q-k)/q = 1 - (k/q). There are q of the q – quantiles, one for each integer k satisfying $0 < k \le q$.
For some q – quantiles there are special names:

- The 2 quantile is called the median
- The 3 quantiles are called tertiles
- The 4 quantiles are called quartiles
- The 5 quantiles are called quintiles
- The 10 quantiles are called deciles
- The 100 quantiles are called percentiles

Below we describe the calculation of the inter q – quantile interval which a person belongs to. A person belongs to the 1st q – q uantile if his/her equivalised disposable income is less than or equal to the equivalised disposable income of the person with the highest equivalised disposable income within the $(1/q) \times 100\%$ of people which have the least income.

A person belongs to the $k^{th} q$ – quantile ($0 < k \le q$) if his/her equivalised disposable income is:

- less than or equal to the equivalised disposable income of the person with the highest equivalised disposable income within the $(k/q) \times 100\%$ of people which have the least income, and
- higher than the equivalised disposable income of people in $\frac{k-1}{q} \times 100\%$ of the

population the lowest equivalised income.

The procedure for calculating the q – quantile where a person belongs is broadly similar to the procedure applied for the calculation of the median (i.e. persons will be sorted according to their equivalised disposable income (sorting order: lowest to the highest value)), but here the cut-off points will be:

$$Cut - of f - point_k = \frac{k}{q} \times 100\% \times \sum_{i=1}^n RB050a_i$$

Where:

n = number of persons (household members) RB050a_i = is the Adjusted cross sectional weight (RB050a) for person i and k an integer satisfying the condition $0 < k \le q$

SAS program: VAR_QITILE.sas

3.2.2.14 Quantile Income

The kth q – quantile equivalised disposable income $EQ_INC_{at_k_q_quantile}$ giving the disposable income in the kth q Inter – Quantile interval is calculated as:

$$EQ_INC_{at_k_q_quantile} = \begin{cases} \frac{1}{2}(EQ_INC20_{j} + EQ_INC20_{j+1}), if \sum_{i=1}^{j} RB050a_{i} = \frac{k}{q} \times 100\% \sum_{i=1}^{n} RB050a_{i} \\ EQ_INC20_{j+1}, if \sum_{i=1}^{j} RB050a_{i} < \frac{k}{q} \times 100\% \sum_{i=1}^{n} RB050a_{i} < \sum_{i=1}^{j} RB050a_{i} \end{cases}$$

Where:

 EQ_{INC20_i} = Equivalised disposable Income (EQ_INC) (after social transfers) of person i RB050a_i = is the Adjusted cross sectional weight (RB050a)

for person i and

n = number of persons (household members)

k an integer satisfying the condition $0 < k \le q$

Persons have to be sorted according to their Equivalised disposable Income (EQ_INC) (after social transfers) (sorting order: lowest to highest value, household identification number and personal identification number).

3.2.2.15 Citizenship group (CITIZEN)

The respondent's citizenship is recorded in the basic SILC variable PB220A; this variable helps for the calculation of the citizenship group variable (CITIZEN). The following citizenship groups are considered

- EU27_FOR (EU27-countries except reporting country), CITIZEN=3
- NEU27_FOR (Non EU27-countries nor reporting country), CITIZEN=2
- FOR (Foreign country) CITIZEN=2,3
- NAT (Reporting country) CITIZEN=1

The above citizenship groups using the basic variable PB220A are defined as follows:



SAS program: VAR_C_BIRTH_CIP_SHIP.sas

3.2.2.16 Country of birth group (C_BIRTH)

The respondent's country of birth is recorded in the basic SILC variable PB210; this variable helps for the calculation of the country of birth group variable (C_BIRTH). The following country of birth groups are considered

- EU27_FOR (EU27-countries except reporting country), C_BIRTH=3
- NEU27_FOR (Non EU27-countries nor reporting country), C_BIRTH=2
- FOR (Foreign country) C_BIRTH=2,3
- NAT (Reporting country) C_BIRTH=1

The above country of birth groups using the basic variable PB210 are defined as follows:



SAS program: VAR_C_BIRTH_CIP_SHIP.sas

3.2.2.17 NUTS region

The respondent's region of residence is recorded in the basic SILC variable DB040; this variable helps for the calculation of the NUTS region variable. There are two levels of aggregation for the variable NUTS, the NUTS1 level and the NUTS2 level. The calculation of the NUTS variables using the basic SILC variable is as follows:

NUTS2 = DB040

NUTSI the _ f irst_three _ characters _ of _ DB040

3.2.2.18 Degree of urbanisation (DEG_URB)

The degree of urbanisation of the area where the respondent's household belongs is recorded in the basic SILC variable DB100. The following degrees of urbanisation are considered:

- DEG1 (Densely populated area: At least 50 % lives in contiguous grid cells of 1km2 with a density of at least 1 500 inhabitants per km2 and a minimum population of 50 000)
- DEG2 (Intermediate density area: Clusters of contiguous grid cells of 1km2 with a density of at least 300 inhabitants per km2 and a minimum population of 5 000)
- DEG3 (Thinly-populated area: More than 50 % of the population lives in rural grid cells outside urban clusters)

The above degrees of urbanisation categories using the basic variable DB100 are defined as follows:



Especially in Estonia and Latvia category 1 gathers categories 1 and 2 together, and in Malta category 2 gathers the categories 2 and 3.

3.2.2.19 Working Income (INCWRK)

The income from work variable (INCWRK) is defined as:

INCWRK = PY010G + PY020G + PY050G

The flags of the above variables (PY010G_F, PY020G_F, PY050G_F) are used to define the relevant variables:



3.2.2.20 Work Intensity (WI)

The work intensity of the household refers to the number of months that all working age household members have been working during the income reference year as a proportion of the total number of months that could theoretically be worked within the household.

A working age is defined as a person aged 18-64, not being a dependent child. Dependent children include all persons aged below 18 as well as persons aged 18 to 24 years, living with at least one parent and economically inactive (see variable Household types (HHTYP)).

The calculation algorithm for the working intensity uses the following auxiliary variables:

Symbol	Variable	Туре
Hourx/Hourx2	Total hours worked per week	Constructed
C_mean	The mean of working hours of those who work part-time at the time of interview	Constructed
Houratio	An estimation of part-time ratio	Constructed
NW	Total number of workable months	Constructed
Ne1/Ne2	Total number of months actually worked	Constructed
Imputedone	Flag that indicates if a record is corrected for non-response (using HY025 variable)	Flag
Imputetodo	Flag that points records that have to be corrected after the application of the HY025 variable	Flag
Imputetodohh	Flag that points the total number of records that have to be corrected after the application of the HY025 variable at household level	Flag
Monthratio	An estimation of the part of the year actually worked by the respondent	Constructed
wi	The sum of month ratios of all working age members of a household	Constructed
Size	The number of working age members of a household	Constructed
WORK_INT	Household work intensity expressed as the average month ratio for a household (only working age household members are included)	Constructed
LWI	Low work intensity flag	Flag

The starting point of work intensity algorithm is the calculation of the total number of hours worked per week (hourx/hourx2) for each respondent. The calculation of auxiliary variables hourx and hourx2 is presented schematically below:



An estimation of the part-time hours ratio is needed in order to equivalise full time and parttime hours worked by the working age members of the household in order.



The calculation of the total equivalised months actually worked (Ne1) as well as the total number of workable months (Nw) for the working age members of the household is presented schematically below:



The calculation of the total equivalised months actually worked corrected for non-response (Ne2) is presented schematically below:



For the problematic case where the basic SILC variables used for the calculation of the total number of workable months (PL073-PL090) are missing, the auxiliary variable Ne2 is calculated using the



Especially in Estonia and Latvia category 1 gathers categories 1 and 2 together, and in Malta category 2 gathers the categories 2 and 3.

Working Income (INCWRK) at individual level. The calculation of variable Ne2 is shown schematically below:



Especially for years before 2009 in order to solve the problem of full P-record missing for all working age members of the household, it is used the income information (Equivalised disposable Income (EQ_INC) before social transfers EQ_INC22) at the household level for the calculation of the Ne2 variable. More specifically:



To detect the records still need imputation at the household level we form the flag imputetodo. The calculation of flag imputetodo is presented below:



An estimation of the part of the year actually worked by each member of the household at working age can be calculated as described below:

$$month_ratio = \frac{Ne2}{12}$$

The sum of month ratios for all household members at working age define auxiliary variable wi:

$$wi = \sum_{i} month _ratio _i, \quad i \in [1, size]$$

In the above definition the auxiliary variable size express the total number of household members at working age and defined as:

$$size = \sum RB030$$

The variable swi has to correct for the problematic cases where the full P-record missing for all working age members of the household, the correction of variable swi it is based on the income information (disposable income before social transfers EQ_INC22) at the household level. More specifically:



Finally the work intensity variable defined as $WORK_INT = \frac{wi}{size}$ is calculated as follows:

if	$WORK_INT>1$	then	$WORK _INT = 1$
if	<i>Age</i> > 59	then	$WORK_INT = 99$
if	$WORK_INT = mis \sin g$	then	$WORK_INT = 99$

The work intensity variable is also used to calculate the low work intensity variable (LWI) as:



3.2.2.21 Material deprivation (MD) The material deprivation rate refers to the situation of people who cannot afford a number of necessities considered essential to live a decent life in tion items.

The nine material deprivation items considered are:

- L1-Arrears on mortgage or rent payments (basic variable HS010/HS011), utility bills (basic variable HS020/HS021), hire purchase instalments or other loan payments (basic variable HS030/HS031)¹
- L2-Capacity to afford paying for one week's annual holiday away from home (basic variable HS040)

¹ The Living conditions Working Group agreed during its 2010 meeting to suppress HS010, HS020, HS030 and to keep only HS011, HS021, HS031 starting from the 2011 operation.

- L3-Capacity to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day (basic variable HS050)
- L4-Capacity to face unexpected financial expenses (basic variable HS060)
- L5-Household cannot afford a telephone (including mobile phone) (basic variable HS070)
- L6-Household cannot afford a colour TV (basic variable HS080)
- L7-Household cannot afford a washing machine (basic variable HS100)
- L8-Household cannot afford a car (basic variable HS110)
- L9-Ability of the household to pay for keeping its home adequately warm (basic variable HH050)





Individuals are considered deprived if they have an enforced lack of at least three out of nine material deprivation items. The calculation of materially deprivation rate using the nine families of material deprivation items is presented below:



SAS program: VAR_DEP_SEV_EXT_Reliability.sas

3.2.2.22 At-risk-of-poverty or social exclusion rate (AROPE)

Persons (as percentage of people in the total population or in thousands of people) who are atrisk-of-poverty (Risk of poverty threshold (ARPTXX)) and/or suffering from severe material deprivation (SEV_DEP) (see Material deprivation (MD)) and/or living in household with zero or very low Work Intensity (WI).

The general formula that calculates at-risk-of-poverty or social exclusion rate as percentage of people in the total population is presented below:

$$AROPE = \frac{\forall i_{EQ_{INC20 < ARPT60_{or_{SEV_{DEP_{or_{WI < 0.2}}}}} \cdot 100}}{\sum_{i} RB050a_{i}} \cdot 100}$$

The formula used to calculate at-risk-of-poverty or social exclusion rate in thousands of persons is:

$$AROPE = \frac{\forall i_EQ_INC20 < ARPT60_or_SEV_DEP_or_WI < 0.2}{1000}$$

3.2.2.23 Poverty status (ARPTXXi)

The risk of poverty indicator identifies people below the Risk of poverty threshold (ARPTXX) (ARPT60i=1) from people with Equivalised disposable Income (EQ_INC) after social transfers (EQ_INC20) above the risk of poverty threshold (ARPT60f=0).

 $if EQ_INC20 < ARPT ARPTXXi=1$

 $if EQ_INC20 \ge ARPT ARPTXXi=0$

The usual definition defines at-risk-of-poverty threshold as 60% of the equivalised median income so the value of variable XX in the usual definition is 60 (ARPT60i).

3.2.2.24 Tenure status (TENSTA_2)

The following accommodation tenure statuses will be considered:

OWN	Owner
OWN_L	Owner, with mortgage or loan
OWN_NL	Owner, no outstanding mortgage or housing loan
RENT	Tenant
RENT_MKT	Tenant, rent at market price
RENT_FR	Tenant at reduced price or free
TOTAL	Total

The calculation algorithm for variable accommodation tenure status uses the auxiliary variable mortgage defined as follows:





The definition of variable accommodation tenure status is shown below schematically:

SAS program: VAR_TENSTA_2.sas

3.2.2.25 Tenure Status (TENSTA)

The following accommodation tenure statuses will be considered:

OWN Owner

RENT Tenant

The calculation algorithm for variable accommodation tenure status uses the auxiliary variable mortgage defined as follows:



3.2.2.26 Overcrowding

The calculation algorithm for variable overcrowding uses the auxiliary variables presented below:

Auxiliary variable	Description
ADULT_PARTNER	Persons living in a couple
ADULT_SINGLE	Adults not living in a couple
CHILD_LESS_12	Children at age of 0-11
TEENAGE_MALE	Boys at the age of 12-17
TEENAGE_FEMALE	Girls at the age of 12-17
COUPLE ROOM	The minimum necessary rooms for the couples (one room per couple)
ADULT_SINGLE_ROOM	The minimum necessary rooms for single adults (one room per adult)
CHILD_ROOM	The minimum necessary rooms for children at age 0-11 (one room per pair of children)

TEEN_MALE_ROOM	The minimum necessary rooms for boys at age 12-17 (one room per pair of boys)
TEEN_FEMALE_ROOM	The minimum necessary rooms for girls at age 12-17 (one room per pair of girls)

The definition of the above described auxiliary variables, with the help of the derived variable Age, presented schematically below:



The next step for the calculation of variable overcrowding is to estimate the minimum number of rooms for each household based on the following rules:

- One room for the household
- One room for each couple in the household
- One room for each single person aged 18 and over
- One room for two single people of the same sex between 12 and 17 years of age
- One room for each single person of different sex between 12 and 17 years of age
- One room for two people under 12 years of age

The minimum number of different type rooms for each household is calculated below:

Room Type	Minimum Number of Rooms
Couple Room	$COUPLE_ROOM = CEIL(\frac{\sum ADULT_PARTNER}{2})$
Adult Single Room	$ADULT _SINGLE_ROOM = \sum ADULT _SINGLE$
Child Room	$CHILD_ROOM = CEIL(\frac{\sum CHILD_LESS_12}{2})$

Teen Male Room	$TEEN_MALE_ROOM = CEIL(\frac{\sum TEENAGE_MALE}{2})$
Teen Female Room	$TEEN_FEMALE_ROOM = CEIL(\frac{\sum TEENAGE_FEMALE}{2})$

Finally the overcrowding variable calculated as shown schematically below:



SAS program: VAR_OVERCROWDED.sas

3.2.2.27 Household cost burden (HCB)

Household cost burden variable (HCB) definition uses the auxiliary variables HCB1, HY20, HY070; their definition is presented schematically below:

a. Total disposable household income including pension from individual private plans (HY20)

$HY20 = EQ_INC20 \times EQ_SS$

where Equivalised disposable Income (EQ_INC) and Equivalised Household size (EQ_SS) have already been presented

b. HY070



c. HCB1



The HCB threshold was set at 40 % of the total disposable household income, so the variable household cost burden (HCB) is defined as follows:

```
if HCB > 40 then HCB=1
if HCB \le 40 then HCB=0
```

SAS program: mlvh07.sas, VAR_HY20_EQ_INCXX.sas

3.2.2.28 Gini coefficient



Let,

 $EQ_{INC_{i}}$ = the equivalised disposable income of person i.

Weight'I = the weight for person i

Persons have to be sorted according to EQ_INC (sorting order: lowest to highest value), then by household identification number and personal identification number in order to obtain a unique ordering.

As each individual *weight' i* of person *i* in the sample represents the number of persons in the population with identical (income) characteristics, our method needs to be neutral to be the number of actual sample observations with a particular income, i.e. the slope of each of the linear functions the Lorenz curve is composed of should be indifferent to the amount of observations on each of these linear functions.

Thus, although we need to order incomes in increasing order and not multiply by weights, because no matter what type of aggregation we deal with and what proportions of the population are represented with each observation, should not affect the fact that the Lorenz curve should non-decreasing in slope with increasing proportion of the population represented by *weight'i*.

So, on the y-axis, we need to multiply for each observation the corresponding income observation with its weight, so that on the y-axis we do not have accumulated sample income but $\sum_{i=1}^{n} EQ_{-}INC_{i} \times weight'_{i}$. On the y-axis, proportions of income of the population should be

represented. This is given by $\sum_{j=1}^{i} EQ_{-}INC_{j} \times weight'_{j}$ and not by $\sum_{j=1}^{i} EQ_{-}INC_{j}$. On the x-axis coordinates are represented by $\sum_{j=1}^{i} weight'_{j}$.

The area A+B (triangle below the line of equal distribution) will be given by

$$A + B = \frac{\sum_{i=1}^{n} (EQ_INC_i \times weight'_i) \times \sum_{i=1}^{n} weight'_i}{2}$$

and the area under the Lorenz curve B will be given by

$$B = \sum_{i=1}^{n} \left[\left(\sum_{j=1}^{i} EQ_{-}INC_{i} \times weight'_{i} - 0.5 \times EQ_{-}INC_{i} \times weight'_{i} \right) \times weight'_{i} \right]$$

The Gini coefficient is calculated as:

$$G = \frac{A}{A+B} = 1 - \frac{B}{A+B}$$

3.2.2.29 Longitudinal weight estimate – Four year duration (RB064e)

The variable RB064e is an estimation of the longitudinal weight RB064 for countries for which the real longitudinal weigh (RB064) is missing. The calculation algorithm for the fictive longitudinal weight (RB064e) uses the following auxiliary variables:

Symbol	Variable	Туре
RB060s	The sum of the personal base weight RB060	Constructed
RB063s	The sum of the longitudinal weight RB063	Constructed
RB064s	The sum of the longitudinal weight RB064	Constructed

The calculation of variables RB060s, RB063s and RB064s is described below.

$$RB060s = \sum_{i} RB060_{i}$$

$$RB063s = \sum_{i} RB063_{i}$$
$$RB064s = \sum_{i} RB064_{i}$$

The estimation for the longitudinal weight RB064e is calculated as:

$$RB064e = \begin{cases} RB063 \times (\frac{RB060s}{RB063s}), & if RB064s = 0\\ RB064, & if RB064s \neq 0 \end{cases}$$

SAS program: VAR_ARPTXXip_RB064e.sas

3.2.2.30 Age at the date of interview (AGE_IW)

The algorithm calculating age in work (AGE_IW) uses the following relevant basic SILC variables: RB070 (month of birth), RB080 (year of birth), HB050 (month of household interview), HB060 (year of household interview).

$$AGE_IW = f loot(\frac{(HB060 \times 100 + HB050) - (RB080 \times 100 + RB070)}{100})$$

100

Note: If AGE W=-1 age is set to AGE W=0.

SAS program: VAR_AGE_AGE_IW.sas

3.2.2.31 Longitudinal weight estimate – Two year duration (SEL_WGT)

The variable SEL_WGT is an estimation of an equivalent to the longitudinal weight RB062 for selected respondents. The algorithm calculating the weight (SEL_WGT) uses the following relevant basic SILC variables: RB062 (longitudinal weight – two year duration), PB080 (personal base weight for selected respondent) as well as the following auxiliary variables:.

Symbol	Variable	Туре
SUM_RB062	The sum of the longitudinal weight RB062	Constructed
SUM_PB080	The sum of the personal base weight for selected respondent PB080	Constructed

The calculation of variables SUM_RB062, SUM_PB080 is described below.

$$SUM _ RB062 = \sum_{i} RB062_{i}$$
$$SUM _ PB080 = \sum_{i} PB080_{i}$$

Following the above definitions the estimation for the longitudinal weight RB062 is calculated as:

$$SEL_WGT = \begin{cases} 0, if PB080 = 0 \text{ or } RB062 = 0 \\ PB080 \times (\frac{SUM_RB062}{SUM_PB080}), if RB062 > 0 \text{ and } PB080 > 0 \\ RB062, if PB080 = RB062 \neq 0 \text{ and } (RB062 < 0 \text{ or } PB080 < 0) \end{cases}$$

SAS program: VAR_SEL_WGT.sas

3.2.2.32 Pension Income (INCPEN)

The income from pensions variable (INCPEN) is defined as:

INCPEN = PY080 + PY100G + PY110G

The flags of the above variables (PY080G_F, PY100G_F, PY110G_F) are used to define the relevant variables:





SAS program: VAR_INCWRK_INCPEN.sas

3.2.2.33 Worked Months

The calculation of the total months worked for the working age members of the household is presented schematically below:



The above calculation makes use of the derived variables Activity Status (ACTSTA) and Age.

SAS program: IW06.sas

3.2.2.34 Lack of toilet (LACK_TOILET)

This variable refers to the lack of indoor flushing toilet for sole use of household, which is related to the basic EU-SILC variables HH090 and HH091. For the calculation of variable *LACK_TOILET* is also used the flag of EU – SILC variable HH091 (HH091_F). The calculation of variable *LACK_TOILET* is presented schematically below:



SAS program: mdho06.sas, mdho03.sas

3.2.2.35 Lack of bath or shower (LACK_BS)

This variable refers to the lack of bath or shower, which is related to the basic EU-SILC variables HH080 and HH081. For the calculation of variable $LACK_BS$ is also used the flag of EU – SILC variable HH081 (HH081_F). The calculation of variable $LACK_BS$ is presented schematically below:



SAS program: mdho06.sas, mdho02.sas

3.2.2.36 Lack of bath or shower and lack of toilet (LACK_BST)

This variable refers to the lack of bath or shower and the lack of indoor flushing toilet for sole use of household toilet, which is related to the basic EU-SILC variables HH080, HH081, HH090 and HH091. For the calculation of variable *LACK_BST* are used the derived variables Lack of toilet (LACK_TOILET) and Lack of bath or shower (LACK_BS). The calculation of variable *LACK_BST* is presented below:

$$LACK_BST = \begin{cases} 1, if LACK_TOILET = 1 and LACK_BS = 1 \\ missing, if LACK_TOILET missing or LACK_BS missing \end{cases}$$

SAS program: mdho06.sas, mdho05.sas

3.2.2.37 Severe housing deprivation (SEV_HH_DEP)

Severe housing deprivation refers to people living in an overcrowded dwelling deprived by at least one housing deprivation item. The housing deprivation items considered are:

- Leaking roof, damp walls/floors/foundation, or rot in window frames or floor (HH040)
- No bath or shower in the dwelling (HH080, HH081) and no indoor flushing toilet for the sole use of the household (HH090, HH091)
- Dwelling too dark (HS160)

Below are presented the auxiliary variables needed for the calculation of severe housing deprivation variable:

Symbol	Variable	Mathematical Type	Туре
LEAKING_ROOF	Leaking roof, damp walls/ floors/ foundation, or not in window frames or floor (HH040)	$LEAKING_ROOF = \begin{cases} 1, if \text{ HH040} = 1\\ 0, if \text{ HH040} = 2 \end{cases}$	Constructed
LACK_BST	Lack of bath or shower and lack of toilet (LACK_BST)		Constructed
LACK_TOILET	Lack of indoor flushing toilet for the sole use of the household LACK_TOILET		Constructed

TOO_DARK	Dwelling too dark (HS160)	$TOO_DARK = \begin{cases} 1, if \text{ HS160} = 1\\ 0, if \text{ HS160} = 2 \end{cases}$	Constructed
OVERCROWDING	Overcrowding		Constructed

 $SEV_HH_DEP = \begin{cases} 1, if \text{ OVERCROWDING = 1 } and (\text{LEAKING}_ROOF = 1 \text{ } or \text{ TOO}_DARK = 1 \text{ } or \text{ LACK}_BST = 1) \\ mis \sin g, if \text{ OVERCROWDING is missing} \end{cases}$

SAS program: mdho06.sas

3.2.2.38 Number of children (NUM_OF_CHLD)

The **number of children** variable is concerned with the definition of the total number of children (people aged less than 18 years) living in the household. For the calculation of the number of children variable is used the auxiliary variable child defined with the help of the derived variable Age as follows:

 $Child = \begin{cases} 1, & \text{if Age} < 18 \\ 0, & \text{if Age} \ge 18 \end{cases}$

So the number of children living in a household equal to:

$$NUM_OF_CHLD = \sum_{i=1}^{n} Child_i$$

where n corresponds to the total number of persons living in the household.

SAS program: _lvph05.sas

3.2.2.39 Household Types (children living with parents)

The following household types will be considered:

- **a.** Child living in a household with both parents cohabiting
- **b.** Child living in a household with both parents married
- **c.** Child living in a household with a single parent
- **d.** Child not living with parents

The calculation of the household type variable for the respondent uses the following auxiliary variables.

W_P Indicator number o	showing the f parents living in	Constructed

	the household	
MA_CO	Indicator showing whether the parents living in the household are married.	Constructed
F_PB180	Father spouse/partner ID	EU – SILC
F_PB030	Father personal ID	EU – SILC
M_PB180	Mother spouse/partner ID	EU – SILC
M_PB030	Mother personal ID	EU – SILC

The calculation of the household type variable (HHTYP2) for the respondent depends on the above auxiliary variables W_P and MA_CO. Below we describe graphically the algorithm calculating the auxiliary variables:

a) W_P



b) MA_CO



The calculation of the household type variable (HHTYP2) is described graphically below:



SAS program: _lvps20.sas, _lvps30.sas

3.2.2.40 Self – Defined Working Status (SELF_WSTATUS)

The self – defined working status is the status that individuals declare themselves as their main activity at present. The following working statuses will be considered:

- **a.** Employees with a permanent job
- **b.** Emploees with a temporary job
- c. Employed persons except employees
- d. Unemployed persons
- e. Students
- f. Retired persons
- g. Other inactive persons

The calculation of the self – defined working status variable for the respondent uses the following auxiliary variables.

Symbol	Variable	Туре
PL31	Variable showing the self – defined current economic status with 9 categories instead of the 11 categories of the initial variable PL031 (Adjusted self – defined current economic status (PL31))	Constructed
PL040	Status in employment	EU – SILC
PL140	Type of contract	EU – SILC

The calculation of the self – defined working status variable (SELF_WSTATUS) for the respondent for each working status is described graphically below.

a. Employees with a permanent job



b. Emploees with a temporary job



c. Employed persons except employees





e. Students


f. Retired persons



g. Other inactive persons



<u>Note:</u> The flow charts deiscribing the calculating algorithms for self – defined working statuses considered above of the derived variable Adjusted self – defined current economic status (PL31).

SAS program: L_lvhl33.sas

3.2.2.41 Employment security transition level (W_SEC)

The **employment security transition level** variable is concerned with the definition of 'good' and bad employment security transitions. Currently 'good' transitions increasing the employment security compared to last year are the following:

Last year working status	Current year working status	W_SEC (Value)
Employees with a permanent contract	Employees with a permanent contract	100
Emploees with a temporary contract	Emploees with a permanent or temporary contract or self – employed	200
Emploees self – employed	Emploees with a permanent or temporary contract or self – employed	300
Unemployed persons	Emploees with a permanent or temporary contract or self – employed or students	400
Student	Emploees with a permanent or temporary contract or self – employed or students	500
Retired		600
Other inactive persons	Emploees with a permanent or temporary contract or self – employed or students or unemployed or other inactive persons	700

Any labour market transition not included in the above table is considered a bad employment security transition decreasing the employment security compared to last year. For bad employment security transition the variable W_SEC takes the value -1000. The security transitions presented in the above table make use of the derived variable Adjusted self – defined current economic status (PL31).

SAS program: L_lvhl33.sas

3.2.2.42 Qualification transition level (W_QUAL)

The qualification transition level variable is concerned with the definition of 'good' and bad Currently 'good' transitions labour market transitions. are the ones from unemployment/inactivity to employment or movements from low paid to high paid jobs. Qualification transition level variable takes values -1 and 1 for bad and good transitions respectively whereas for the rest of transitions take a zero value. The qualification transitions we consider as well as their characterisation based to the value of W QUAL variable are presented in the following table:

Last year working status	Current year working status	Change in employment income decile	W_QUAL (Value)
Employed	Employed	Better income decile	1
Employed	Student	-	1
Unemployed	Employed or student	-	1
Student	Employed or student	-	1
Other inactive persons	Employed, student or unemployed	-	1
Employed	Employed	Same income decile	0
Unemployed	Unemployed	-	0
Othet inactive persons	Other inactive persons	-	0
Employed	Employed	Worse income decile	-1
Employed	Unemployed	-	-1
Unemployed	Other inactive persons	-	-1
Student	Other inactive persons	-	-1

SAS program: L_lvhl35.sas

3.2.2.43 Adjusted self – defined current economic status (PL31)

The adjusted self – defined current economic status variable is slightly different categorisation of the EU – SILC variable PL031 ('Self –defined current economic status'). The adjusted variable PL31 allows for 9 categories instead of the 11 categories of the initial variable PL031. The connection between the categories of the two variables is shown in the table below:

PL031 Category	PL031 Value	PL31 Value
Employee working full time	1	1
Self – employed working full	3	1
time (including family		

PL031 Category	PL031 Value	PL31 Value
worker)		
Employee working part time	2	2
Self – employed working part time (including family worker)	4	2
Unemployed	5	3
Pupil, studentm further training, unpaid work experience	6	4
In retirement or in early retirement or has given up business	7	5
Permanently disabled or/and unfit to work	8	6
In compulsory military community or service	9	7
Fulfilling domestic tasks and care responsibilities	10	8
Other inactive person	11	9

SAS program: VAR_PL31.sas

3.2.2.44 Child age (CHILDAGE)

The algorithm calculating the variable child (persons aged 0-11) age uses the derived variable Age at the date of interview (AGE_IW).

- a) All countries (except Ireland and United Kingdom)
- CHILDAGE = Age at the date of interview (AGE_IW)

b) For Ireland and United Kingdom

CHILDAGE= Age at 31st December of the previous of survey year

3.2.2.45 Child Weight

The child weight is calculation makes use of the two basic EU - SILC variables: the personal cross – sectional weight (RB050), and children cross – sectional weight for child care (RL070).

Child Weight = $\begin{cases} RL070, if RL070 \text{ exists} \\ RB050, \text{ otherwise} \end{cases}$

4 Part 2 – Disseminated datasets

The 'Income and living conditions' tree (ilc) includes four main nodes a) People at risk of poverty or social exclusion (Europe 2020 strategy) (ilc_pe), b) Income distribution and monetary poverty (ilc_ip), c) Living conditions (ilc_lv), d) Material deprivation (ilc_md). In this section will list and describe all the sub – nodes or actual datasets belonging in each of the four abovementioned main nodes.

All datasets in this section are calculated on personal level. Although household variables are used for the computation of the indicators, they all rely on the concept of people living in a household with a specific characteristic. The only exceptions where calculations at household-level are applied concern the datasets (ilc_lvhl01 to ilc_lvhl05) under the sub-node ilc_lvph: "Private households".

4.1 People at risk of poverty or social exclusion (EU 2020 strategy) (ilc_pe)

The People at risk of poverty or social exclusion (EU 2020 strategy) main nodes includes the following sub – nodes $% \left(\frac{1}{2}\right) =0$

- Main indicator Europe 2020 target on poverty and social exclusion (ilc_peps)
- Intersections between sub populations of Europe 2020 indicators on poverty and social exclusion (ilc_pees)

4.1.1 Main indicator Europe 2020 target on poverty and social exclusion (ilc_peps)

The following section presents the tables of the various indicators belonging in the node 'Main indicator on poverty and social exclusion'.

4.1.1.1 People at risk of poverty or social exclusion by age and sex

eurostat

Dataset: People at-risk-of-poverty or social exclusion by age and sex **Dissemination tree code:** <u>ilc_peps01</u> Data source: ELL SU C

Data source: EU-SILC

Description: Persons (as percentage of persons in the total population or as thousands of persons) and in the relevant age and sex breakdowns who are <u>at-risk-of-poverty</u> or <u>severely</u> <u>materially deprived</u> or living in a <u>household with low work intensity</u>.

Key indicator(s) included in the dataset: People at-risk-of-poverty or social exclusion (EU2020)

Policy relevance:

Social exclusion arises from multiple sources, some endogenous such as gender, age and some exogenous such as poverty, material deprivation, work. Poverty has a differential impact on women and men, on children, the elderly and the rest of the population, based on their different roles and responsibilities. Women are more likely than men to interrupt their employment or to work part-time/reduced hours to attend to family care responsibilities. On average, employed women are less likely to secure a decent income than employed men, as indicated by their greater exposure to low pay and more broadly by the persistent gender pay gap, and in turn more likely to have inferior pensions and other social protection entitlements.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income, activity status, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population, thousands of persons

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfer) (EQ_INC20) below the Risk of poverty threshold (ARPTXX), which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone (see Material deprivation (MD)).

A persons living in household with very low work intensity is a person living in a household with Work Intensity (WI) below a threshold set at 0.20.

Age is the age of the respondent at the end of income reference period (Age)

Other concepts: Equivalised disposable Income (EQ_INC), Work Intensity (WI), Material deprivation (MD)

Calculation method: At-risk-of-poverty or social exclusion rate (AROPE) broken down by age and sex ($AROPE_{at_age/sex}$) is calculated as the percentage of people (or thousands of people) in each age group and sex who are at-risk-of-poverty (EQ_INC20<ARPT60) or severely deprived (SEV_DEP) or living in a household with low work intensity (WI<0.2) over the total population in that breakdown (i.e. age group and sex). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).



Methodological issues:

- Unless specified, at-risk-of-poverty rates are assumed to be 'after social transfers' (i.e. they include social benefits such as pensions and unemployment benefits).
- Unless specified, at-risk-of-poverty rates relate to the at-risk-of-poverty threshold that is calculated for the total population of a member state at 60% median equivalised disposable income level. The severe deprivation threshold is set to four and the low work intensity threshold is 20%. The choice of these cut-off thresholds is arbitrary²; Eurostat calculates a range of complementary poverty rates according to different thresholds.
- Income poverty risk at a given point in time may not necessarily imply low living standards in the short term, for example if the persons at risk have access to savings, to credit, to private insurance, tax credits, to financial assistance from friends and relatives etc. In particular, the cumulative impact of extended periods at risk is to be further assessed.
- Measuring incomes at the level of private households may have certain implications. The exclusion of collective households might lead to an underrepresentation of certain groups (e.g. the elderly, persons with disabilities).

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/less than 6 years/from 6 to 10 years/from 6 to 11 years/from 11 to 15 years/from 12 to 17 years/less than 16 years/from 16 to 24 years/from 16 to 64 years/16 years and over/less than 18 years/from18 to 24 years/from 18 to 64 years/18 years and over/from 25 to 49 years/from 25 to 54 years/from 50 to 64 years/55 years and over/less than 60 years/60 years or over/less than 65 years/from 65 to 74 years/65 years or over/less than 75 years/75 years and over)

Reference period: Survey year for Sex and also for variables related to the materially deprived items in question, except for the variables on arrears that refer to the last 12 months. Age is the age of the respondent at the end of income reference period. Work intensity of the household refers to the number of months that all working age household members have been working during the income reference year. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mpeps01.sas (VAR_AROPE.sas)

² The measurement of extreme poverty in the European Union. European Commission, Directorate General for Employment, Social Affairs and Inclusion, January 2011.

4.1.1.2 People at risk of poverty or social exclusion by most frequent activity status (population aged 18 and over)



Dataset: People at risk of poverty or social exclusion by most frequent activity status (population aged 18 and over)

Dissemination tree code: <u>ilc_peps02</u>

Data source: EU-SILC

Description: The persons as percentage of persons in the total population and in the relevant age, sex and activity status breakdowns who are <u>at-risk-of-poverty</u> or <u>severely materially</u> <u>deprived</u> or living in a <u>household with low work intensity</u>.

Key indicator(s) included in the dataset: People at-risk-of-poverty or social exclusion (EU2020)

Policy relevance:

Employment is identified in European policy debates as a key mechanism for offering protection against social exclusion and poverty. More specifically work is one of the main mechanisms for an overall societal integration. The ability to enter the labor market is a central factor for the development of persons. In the long run, having versus not having work sets the agenda for the integration into or exclusion from society.

Statistical population: Population aged 18 years and over living in private households. People with less than 7 months declared in the calendar of activities are excluded. People with missing values for equivalised disposable income, activity status, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfer) (EQ_INC20) below the Risk of poverty threshold (ARPTXX), which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone (see Material deprivation (MD)).

A persons living in household with very low work intensity is a person living in a household with Work Intensity (WI) below a threshold set at 0.20.

The most frequent activity status is the status (employed - employees, employed except

employees, unemployed, retired, other inactive) that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. (Activity Status (ACTSTA))

Other concepts: Equivalised disposable Income (EQ_INC), Work Intensity (WI), Material deprivation (MD), Age

Calculation method: At-risk-of-poverty or social exclusion rate (AROPE) down by age, sex and activity status' ($AROPE_{at_age/sex/wstatus}$) is calculated as the percentage of people in each age group, activity status group and sex who are at-risk-of-poverty (EQ_INC20<ARPT60) or severely deprived (SEV_DEP) or living in a household with low work intensity (WI<0.2) over the total population in that breakdown (i.e. age group, activity status group and sex). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).



Methodological issues:

- The most frequent activity status is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. Consequently, where an individual provides information on his activity status over 12 months, his most frequent activity status will be the status he declares to have occupied for at least 7 months. Individuals who have spent only half or less than the total number of declared months in any activity status are excluded from the computation. People with less than 7 months declared in the calendar of activities are excluded.
- The activity statuses cannot be considered as a perfectly hierarchical structure. Due to the construction of the activity statuses, the subset of the total population 'employed persons' will contain more than the sum of 'employees' and 'employed persons except employees'. The same holds for the subset 'not employed persons'. That is, the breakdowns of 'employed persons' and 'not employed persons' are not exhaustive. This is the case because persons who spend less than half of the reported time in two or more breakdowns of 'employed persons' or 'not employed persons' may qualify as being 'employed person' or 'not employed person' but not any of the breakdowns.
- The most frequent activity status for each month is based on a self-assessment by the interviewees. Therefore, it may not be entirely consistent with the ILO coding that is applied in the European Union Labour Force Survey.
- This indicator measures activity status at the individual level.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time

- Sex (SEX): Total/Male/Female
- Age: From18 to 24 years/from 18 to 59 years/from 18 to 64 years/from 18 to 74 years/18 years and over/from 25 to 49 years/from25 to 54 years/from 25 to 59 years/from 50 to 59 years/from 50 to 64 years/55 years and over/60 years and over/from 65 to 74 years/65 years and over/75 years and over)
- Activity status: Population/employed persons/employees/employed persons except employees/not employed persons/unemployed persons/retired persons/other inactive persons)

Reference period: Survey year for Sex and also for variables related to the materially deprived items in question, except for the variables on arrears that refer to the last 12 months. Age is the age of the respondent at the end of income reference period. Previous to survey year for activity status. Work intensity of the household refers to the number of months that all working age household members have been working during the income reference year. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mpeps02.sas (VAR_AROPE.sas, VAR_ACTSTA.sas)

4.1.1.3 People at risk of poverty or social exclusion by quintile and household type



Dataset: People at risk of poverty or social exclusion by income quintile and household type **Dissemination tree code:** <u>ilc_peps03</u> Data source: EU-SILC

Description: Persons as percentage of persons in the total population and in the relevant quintile and household type breakdowns who are <u>at-risk-of-poverty</u> or <u>severely materially</u> <u>deprived</u> or living in a <u>household with low work intensity</u>.

Key indicator(s) included in the dataset: People at-risk-of-poverty or social exclusion (EU2020)

Policy relevance:

Although the initial concept of relative income poverty has been extended to cover the nonmonetary dimensions of poverty (material deprivation) and situations of exclusion from the labour market, it is of interest to see the relation of the broader concept of poverty and social exclusion with household income. It is therefore very relevant to analyse why some groups with higher income experience poverty and social exclusion. The low-income population is in any case included in the risk-of-poverty element.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfer) (EQ_INC20) below the Risk of poverty threshold (ARPTXX), which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone (see Material deprivation (MD)).

A persons living in household with very low work intensity is a person living in a household with Work Intensity (WI) below a threshold set at 0.20.

Other concepts: Equivalised disposable Income (EQ_INC), Work Intensity (WI), Material deprivation (MD), Inter – Quantile interval, Inter – Quantile, Household types (HHTYP)

Calculation method: At-risk-of-poverty or social exclusion rate (AROPE) broken down by income quintile and household type' ($AROPE_{at_HHTYP/quint\,ile}$) is calculated as the percentage of people in each household type and income quintile group who are at-risk-of-poverty (EQ_INC20<ARPT60) or severely deprived (SEV_DEP) or living in a household with low work intensity (WI<0.2) over the total population in that breakdown (i.e. household type group and income quintile group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$AROPE_{at_HHTYP/quintile} = \frac{\forall_{i_EQ_INC20 < ARPT60_or_SEV_DEP_or_WI < 0.2_at HHTYP/quintile}}{\sum_{\forall_{i_at HHTYP/quintile}} RB050a_{i}} \cdot 100$$

Methodological issues:

- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Quintile: First quintile/second quintile/third quintile/fourth quintile/fifth quintile
- Household Type (HHTYP): Total/single person/one adult younger than 65 years/one adult older than 65 years/single person with dependent children/single female/single male/two adults/two adults younger than 65 years/two adults, at least one aged 65 years and over/two adults with one dependent child/two adults with two dependent children/two adults with three or more dependent children/two or more adults without dependent children/three or more adults with dependent c

Reference period: Survey year for variables related to the materially deprived items in question, except for the variables on arrears that refer to the last 12 months. Age is the age of the respondent at the end of income reference period; household type is also based on the Age variable. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mpeps03.sas (VAR_AROPE.sas, VAR_HT_NADU_NDCH.sas, VAR_HT1.sas, VAR_QITILE.sas)

4.1.1.4 People at risk of poverty or social exclusion by education level (population aged 18 and over)



Dataset: People at risk of poverty or social exclusion by education level (population aged 18 and over)

Dissemination tree code: <u>ilc_peps04</u> Data source: EU-SILC

Description: Persons as percentage of persons in the total population and in the relevant age, sex and education level breakdowns who are <u>at-risk-of-poverty</u> or <u>severely materially</u> <u>deprived</u> or living in a <u>household with low work intensity</u>.

Key indicator(s) included in the dataset: People at-risk-of-poverty or social exclusion (EU2020)

Policy relevance:

The role of education in the process of social exclusion, employment and active citizenship has yet to be fully elucidated. Education or schooling increases productivity as it equips individuals' with skills and knowledge. As productivity is reflected in earnings and rates of labor market participation, education offers an important means of social mobility, particularly for the poor. Widespread changes in the economy such as the emergence of high-level service sector jobs have opened up important opportunities, to those with the necessary levels of education.

Statistical population: Population aged 18 years and over living in private households. People with missing values for equivalised disposable income, sex, age or education level are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfer) (EQ_INC20) below the Risk of poverty threshold (ARPTXX), which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone (see Material deprivation (MD)).

A persons living in household with very low work intensity is a person living in a household with Work Intensity (WI) below a threshold set at 0.20.

Educational level (attainment) of a person is the highest level of an educational programme the person has successfully completed and the study field of this programme. The educational classification to be used is the International Standard Classification of Education (ISCED 1997) coded according to the seven ISCED-97 categories.

Other concepts: Equivalised disposable Income (EQ_INC), Work Intensity (WI), Material deprivation (MD), Age

Calculation method: At-risk-of-poverty or social exclusion rate (AROPE) broken down by age, sex and education level' ($AROPE_{at_age_sex_ISCED97}$) is calculated as the percentage of people in each age group, sex and education level who are at-risk-of-poverty (EQ_INC20<ARPT60) or severely deprived (SEV_DEP) or living in a household with low work intensity (WI<0.2) over the total population in that breakdown (i.e. age group, sex and education level). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$AROPE_{at_age/sex/ISCED97} = \frac{\forall_{i_EQ_INC20 < ARPT60_or_SEV_DEP_or_WI < 0.2_at age/sex/ISCED97}}{\sum_{\forall_{i_at_age/sex/ISCED97}} RB050a_{i}} \cdot 100$$

Methodological issues:

- ISCED refers to the International Standard Classification of Education, developed by UNESCO. The version of the classification that is applied for this indicator follows the 1997 version of ISCED.
- In face of the diversity of national education systems (with regard to curricula, compulsory schooling ages, equivalences between qualifications-and other elements) one should be careful in making cross-country comparisons.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: From18 to 24 years/from 18 to 59 years/from 18 to 64 years/from 18 to 74 years/18 years and over/from 25 to 49 years/from25 to 54 years/from 25 to 59 years/from 50 to 59 years/from 50 to 64 years/55 years and over/60 years and over/from 65 to 74 years/65 years and over/75 years and over)
- Education level (ISCED97): All ISCED 1997 levels/pre-primary, primary and lower secondary education (levels 0-2)/upper secondary and post-secondary non-tertiary education (levels 3 and 4) /first and second stage of tertiary education (levels 5 and 6))

Reference period: Survey year for Sex and Education level. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mpeps04.sas (VAR_AROPE.sas)

4.1.1.5 People at risk of poverty or social exclusion by broad group of citizenship (population aged 18 and over)



Dataset: People at-risk-of-poverty or social exclusion by broad group of citizenship (population aged 18 and over)

Dissemination tree code: <u>ilc_peps05</u>

Data source: EU-SILC

Description: Persons as percentage of persons in the total population and in the relevant age, sex and group of citizenship breakdowns who are <u>at-risk-of-poverty</u> or <u>severely</u> <u>materially deprived</u> or living in a <u>household with low work intensity</u>.

Key indicator(s) included in the dataset: People at-risk-of-poverty or social exclusion (EU2020)

Policy relevance:

Non-nationals are occasionally exposed to a multiple times higher risk of poverty and social exclusion than the "indigenous" population. In particular third-country nationals, may be subject to immigration restrictions on entering and remaining within a country, as well as limitations on access to the labour market. EU nationals have the right to live in other EU Member States, although there remain some transitional labour market restrictions. The integration of third-country nationals has been identified as a particular policy priority at European level, as well as in many Member States³.

Statistical population: Population aged 18 years and over living in private households. People with missing values for equivalised disposable income, sex, age or citizenship are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfer) (EQ_INC20) below the Risk of poverty threshold (ARPTXX), which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone (see Material deprivation (MD)).

A persons living in household with very low work intensity is a person living in a household with Work Intensity (WI) below a threshold set at 0.20.

Citizenship is defined as the particular legal bond between the individual and his/her State acquired by birth or naturalisation, whether by declaration, choice, option, marriage or other means according to the national legislation. It generally corresponds to the country issuing the passport.

Other concepts: Citizenship group (CITIZEN), Equivalised disposable Income (EQ_INC), Work Intensity (WI), Material deprivation (MD), Age

Calculation method: At-risk-of-poverty or social exclusion rate (AROPE) broken down by age, sex and citizenship' ($AROPE_{at_age/sex/citizen}$) is calculated as the percentage of people in each age group, sex and citizenship group who are at-risk-of-poverty (EQ_INC20<ARPT60) or severely deprived (SEV_DEP) or living in a household with low

³ <u>Eurostat (2011). 'Migrants in Europe. A statistical portrait of the first and second generation'</u> (<u>http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-31-10-539/EN/KS-31-10-539-EN.PDF</u>).

work intensity (WI<0.2) over the total population in that breakdown (i.e. age group, sex and citizenship group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$AROPE_{at_age/sex/citizen} = \frac{\forall_{i_EQ_INC20$$

Methodological issues:

- Citizenship is defined as the particular legal bond between an individual and his/her State, acquired by birth or naturalization, whether by declaration, option, marriage or other means according to the national legislation.
- For persons with multiple citizenship and where one of the citizenship is the one of the country of residence, this latter citizenship is recorded/coded.
- Citizenship is referred to the current (at the time of survey) national boundaries and not the boundaries at the time of the reference period. In the case of citizenships that no longer exist, the present-day borders of the country are used.
- Current EU-SILC question only explores the stock of non-EU nationals, with no information on how long they have been in the country.
- The EU-SILC only covers private households, with persons living in collective households and in institutions for asylum seekers and migrant workers excluded from the target population
- There is no information on ethnic status of respondents. So ethnic minorities, including the Roma cannot be identified in EU-SILC. In addition, the categorization of the groups into "EU" and "non-EU" is rather broad and the groups distinguished are too large and heterogeneous.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)
- Time
- Sex: Total/Male/Female
- Age: From 18 to 54 years/from 18 to 59 years/from 18 to 64 years/18 years and over/from 25 and 54 years/from 25 and 59 years/55 years or over/60 years or over/65 years or over
- Citizenship group (CITIZEN): EU27-countries except reporting country/non EU27countries nor reporting country/foreign country/reporting country

Reference period: Survey year for sex and citizenship. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mpeps05.sas (VAR_AROPE.sas, VAR_C_BIRTH_CIP_SHIP.sas)

4.1.1.6 People at risk of poverty of social exclusion by broad group of country of birth (population aged 18 and over)



Dataset: People at risk of poverty or social exclusion by broad group of country of birth (population aged 18 and over)

Dissemination tree code: <u>ilc_peps06</u>

Data source: EU-SILC

Description: Persons as percentage of persons in the total population and in the relevant age, sex and group of country of birth breakdowns who are <u>at-risk-of-poverty</u> or <u>severely</u> <u>materially deprived</u> or living in a <u>household with low work intensity</u>.

Key indicator(s) included in the dataset: People at-risk-of-poverty or social exclusion (EU2020)

Policy relevance:

Migrants are considered to be among the most vulnerable groups to experience poverty and social exclusion. In particular non-EU migrants have also been severely affected by the crisis in the context of increasing unemployment. The loss of employment, compounded with the fact that migrants are often employed in sectors where working conditions are particularly flexible, raise serious issues in relation to their access to social security safety nets.

Statistical population: Population aged 18 years and over. People with missing values for equivalised disposable income, sex, age or country of birth are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfer) (EQ_INC20) below the Risk of poverty threshold (ARPTXX), which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone (see Material deprivation (MD)).

A persons living in household with very low work intensity is a person living in a household with Work Intensity (WI) below a threshold set at 0.20.

Country of birth is defined as the country of residence of the mother at the time of birth.

Other concepts: Country of birth group (C_BIRTH), Equivalised disposable Income

(EQ_INC), Work Intensity (WI), Material deprivation (MD), Age

Calculation method: At-risk-of-poverty or social exclusion rate (AROPE) broken by age, sex and country of birth $(AROPE_{at_age/sex/c_birth})$ is calculated as the percentage of people in each age group, sex and country of birth group who are at-risk-of-poverty (EQ_INC20<ARPT60) or severely deprived (SEV_DEP) or living in a household with low work intensity (WI<0.2) over the total population in that breakdown (i.e. age group, sex and country of birth group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$AROPE_{at_age/sex/c_birth} = \frac{\forall_{i_EQ_INC20 < ARPT60_or_SEV_DEP_or_WI < 0.2_at age/sex/c_birth}}{\sum_{\forall_{i_at_age/sex/c_birth}} RRB050a_{i}} \cdot 100$$

Methodological issues:

- Country of birth is the country where a person was born, namely the country of usual residence of mother at the time of the birth.
- Country of birth is referred to the current (at the time of survey) national boundaries and not to the boundaries in place at the time of birth.
- In the case of countries that no longer exist (such as parts of the former Soviet Union or others), the present-day borders of the country are used.
- For person born in a place that currently belongs to a country different from the country that the place belonged to at the time of birth, the 'country' which the place belonged to currently (at the time of the survey) is recorded.
- For people born in a place which is now outside the national territory but who feel that they have always been a national citizen, the country of birth should be recorded as according to this citizenship.
- Current EU-SILC question only explores the stock of non-EU nationals, with no information on how long they have been in the country.
- Unlike citizenship, a person's country of birth does not change. The distribution by country of birth is therefore influenced not just by recent migration, but by patterns of migration flows that may have taken place many years previously. Thus, the predominant countries of birth of migrants in a country may reflect particular migration flows that took place decades earlier.
- Patterns of migration may also reflect past colonial and linguistic links, as seen in the long history of migration from the Indian subcontinent to the United Kingdom, in migration between Ireland and the United Kingdom, between Brazil and Portugal and between Ecuador and Spain and in migration from Suriname to the Netherlands.
- The EU-SILC only covers private households, with persons living in collective households and in institutions for asylum seekers and migrant workers excluded from the target population
- Migrants and more particularly recently arrived migrants are likely to be undercovered by EU-SILC. Some migrants will have been missed from the sampling frame (which is designed to ensure a representative coverage of the overall population, rather than specifically migrants). These coverage problems may be hard to assess and correct because of a lack of reliable information on the numbers of migrants in

specific areas

- In Member States in which the number of migrants is very small EU-SILC, given its nature as sample survey, is not capable of fully capturing the characteristics of the people concerned.
- There is no information on ethnic status of respondents. In addition, the categorization of the groups into "EU" and "non-EU" is rather broad and the groups distinguished are too large and heterogeneous.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: From 18 to 54 years/from 18 to 59 years/from 18 to 64 years/18 years and over/from 25 and 54 years/from 25 and 59 years/55 years or over/60 years or over/65 years or over)
- Country of birth group (C_BIRTH): EU27-countries except reporting country/non EU27-countries nor reporting country/foreign country/reporting country)

Reference period: Survey year for sex. Age is the age of the respondent at the end of income reference period. Constant for country of birth. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year)

SAS program: mpeps06.sas (VAR_AROPE.sas, VAR_C_BIRTH_CIP_SHIP.sas)

4.1.1.7 People at risk of poverty of social exclusion by tenure status

eurostat

Dataset: People at-risk-of poverty or social exclusion by tenure status **Dissemination tree code:** <u>ilc_peps07</u> **Data source:** ELL SU C

Data source: EU-SILC

Description: Persons (as percentage of persons in the total population) and in the relevant tenure status breakdowns who are <u>at-risk-of-poverty</u> or <u>severely materially deprived</u> or <u>living</u> in a household with low work intensity.

Key indicator(s) included in the dataset: People at-risk-of-poverty or social exclusion (EU2020)

Policy relevance:

The fight against poverty and social exclusion is at the heart of the Europe 2020 strategy for smart, sustainable and inclusive growth. With more than 120 million people in the EU at risk

of poverty or social exclusion, EU leaders have pledged to bring at least 20 million people out of poverty and social exclusion by 2020^4 .

Statistical population: All persons living in private households. People with missing values for equivalised disposable income or tenure status are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage (%) of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an <u>Equivalised disposable Income (EQ_INC)</u> (after social transfer) (EQ_INC20) below the <u>Risk of poverty threshold (ARPTXX)</u>, which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone (see Material deprivation (MD)).

A persons living in household with very low work intensity is a person living in a household with <u>Work Intensity (WI)</u> below a threshold set at 0.20.

(Accommodation) tenure status is defined defined a) Owner, with mortgage or loan b) Owner, no outstanding mortgage or housing loan c) Tenant, rent at market price d) Tenant, rent at reduced rate or free (Tenure status (TENSTA_2)).

The variables used are HH020/HH021 in combination with HY100G/HY100N for distinguishing between owners with and without mortgage.

Other concepts: Equivalised disposable Income (EQ_INC), Work Intensity (WI), Material deprivation (MD)

Calculation method: <u>At-risk-of-poverty or social exclusion (AROPE)</u> broken by tenure status ($AROPE_{at_TENURE}$) is calculated as the percentage of people in each tenure status group who are at-risk-of-poverty (EQ_INC20<ARPT60) or severely deprived (SEV_DEP) or living in a household with low work intensity (WI<0.2) over the total population in that breakdown (i.e. tenure status). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).</u>

$$AROPE_{at_TENURE} = \frac{\forall_{i_EQ_INC20 < ARPT60_or_SEV_DEP_or_WI < 0.2_at_TENURE} \cdot 100}{\sum_{\forall_{i_at_TENURE}} RB050a_{i}}$$

⁴ <u>European Commission, Social protection and Social exclusion: Poverty and social exclusion.</u>

Methodological issues:

- Unless specified, at-risk-of-poverty rates are assumed to be 'after social transfers' (i.e. they include social benefits such as pensions and unemployment benefits).
- Unless specified, at-risk-of-poverty rates relate to the at-risk-of-poverty threshold that is calculated for the total population of a member state at 60% median equivalised disposable income level. The severe deprivation threshold is set to four and the low work intensity threshold is 20%. The choice of these cut-off thresholds has been decided by the relevant committees⁵; Eurostat calculates a range of complementary poverty rates according to different thresholds.
- Income poverty risk at a given point in time may not necessarily imply low living standards in the short term, for example if the persons at risk have access to savings, to credit, to private insurance, tax credits, to financial assistance from friends and relatives etc. In particular, the cumulative impact of extended periods at risk is to be further assessed.
- Measuring incomes at the level of private households may have certain implications. The exclusion of collective households might lead to an underrepresentation of certain groups (e.g. the elderly, persons with disabilities).
- The accommodation tenure status is assigned to each household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Tenure Stats (TENURE): Total/Owner, with mortgage or loan/Owner, no outstanding mortgage or housing loan/Tenant, rent at market price/Tenant, rent at reduced price or free

Reference period: Survey year for tenure status and for the variables related to the materially deprived items in question, except for the variables on arrears that refer to the last 12 months. Work intensity of the household refers to the number of months that all working age household members have been working during the income reference year. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: peps07.sas (VAR_AROPE.sas, VAR_TENSTA_2.sas)

4.1.1.8 People at risk of poverty or social exclusion by NUTS region



⁵ The measurement of extreme poverty in the European Union. European Commission, Directorate General for Employment, Social Affairs and Inclusion, January 2011.

Dataset: People at risk of poverty or social exclusion by NUTS region **Dissemination tree code:** <u>ilc_peps11</u>

Data source: EU-SILC

Description: Persons as percentage of persons in the total population and in the relevant NUTS region (basic SILC variable DB040) breakdowns who are <u>at-risk-of-poverty</u> or <u>severely materially deprived</u> or living in a <u>household with very low work intensity</u>.

Key indicator(s) included in the dataset: People at-risk-of-poverty or social exclusion (EU2020)

Policy relevance:

Regional disparity in terms of poverty and social exclusion is rather wide across EU countries. This might be related to the fact that countries (with few exceptions) provide only few universal benefits, which could mitigate inequalities of incomes. The forces, which lie behind social exclusion and inclusion, affect different people in different communities in a variety of ways according to the local context. Furthermore local traditions of mutual aid, self-help organisations and other community resources have been regarded as strong in some communities, and may compensate for exclusion from other networks.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income or region are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfer) (EQ_INC20) below Risk of poverty threshold (ARPTXX), which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone (see Material deprivation (MD)).

A persons living in household with very low <u>work intensity</u> is a person living in a household with Work Intensity (WI) below a threshold set at 0.20.

Region (DB040): This variable refers to the region of the residence of the household at the date of interview.

Other concepts: NUTS region, Equivalised disposable Income (EQ_INC), Work Intensity (WI), Material deprivation (MD)

Calculation method: At-risk-of-poverty or social exclusion rate (AROPE) broken down by NUTS region' ($AROPE_{at_NUTS}$) is calculated as the percentage of people in each group of NUTS region who are at-risk-of-poverty (EQ_INC20<ARPT60) or severely deprived (SEV_DEP) or living in a household with low work intensity (WI<0.2) over the total

population in that breakdown (i.e. NUTS region group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$AROPE_{at_NUTS} = \frac{\forall i_EQ_INC20 < ARPT60_or_SEV_DEP_or_W1 < 0.2_at NUTS}{\sum_{\forall i_at NUTS} RB050a_{i}} \cdot 100$$

Methodological issues:

- One should be careful in making cross-country comparisons, because the number of regions per countries varies a great deal.
- One issue in developing regional indicators concerns the choice of the type of units to serve as 'regions'. For a number of substantive and practical reasons, geographical-administrative regions, specifically NUTS regions at various level of classification, appear as the most appropriate choice for EU countries.
- NUTS units are not defined in exactly the same way in different countries and can differ greatly in size and homogeneity
- From an analytical point of view, 2-digit level of NUTS is recommended. Note that for 1 in 3 EU countries the 2 digit level corresponds to the country level.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)/ NUTS1 (Iceland, Norway, Croatia, Switzerland, EU Member States excluding Austria, Germany, France, Netherlands, Portugal, United Kingdom)/ NUTS2 (Iceland, Norway, EU Member States excluding Austria, Belgium, Germany, France, Greece, Hungary, Netherlands, Portugal, United Kingdom)
- Time

Reference period: Survey year for information about region. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year)

SAS program: mpeps11.sas (VAR_AROPE.sas)

4.1.1.9 People at risk of poverty or social exclusion by degree of urbanisation



Dataset: People at risk of poverty or social exclusion by degree of urbanisation **Dissemination tree code:** <u>ilc_peps13</u> Data source: EU-SILC

Description: Persons as percentage of persons in the total population and in the relevant degree of urbanisation (basic SILC variable DB100) breakdowns who are <u>at-risk-of-poverty</u> or <u>severely materially deprived</u> or living in a <u>household with very low work intensity</u>.

Key indicator(s) included in the dataset: People at-risk-of-poverty or social exclusion (EU2020)

Policy relevance:

While the highest absolute number of people at risk of poverty and social exclusion is found in densely populated (urban) areas of the EU, poverty and social exclusion in thinly populated (rural) areas is a widespread phenomenon throughout the EU. Rural factors affecting exclusion include the neglect of social exclusion in rural areas by both policy makers and the public; a lack of social housing; car dependency and inadequate public transport; small workplaces associated with low pay and restricted careers; lack of unionisation or collective action of excluded groups; and strong personal networks. The reduction of the number of poor and socially excluded people in rural areas of the EU is crucial for the attainment of the EU2020 headline target.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income, sex, age or citizenship are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfer) (EQ_INC20) below the Risk of poverty threshold (ARPTXX), which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone (see Material deprivation (MD)).

A persons living in household with very low work intensity is a person living in a household with Work Intensity (WI) below a threshold set at 0.20.

Other concepts: Degree of urbanisation (DEG_URB), Equivalised disposable Income (EQ_INC), Work Intensity (WI), Material deprivation (MD)

Calculation method: At-risk-of-poverty or social exclusion rate (AROPE) broken down by degree of urbanization' $(AROPE_{at_d_urb})$ is calculated as the percentage of people in each degree of urbanization group who are at-risk-of-poverty (EQ_INC20<ARPT60) or severely deprived (SEV_DEP) or living in a household with low work intensity (WI<0.2) over the total population in that breakdown (i.e. degree of urbanization group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$AROPE_{at_d_urb} = \frac{\sum_{at_d_urb} RB050a_{i}}{\sum_{\forall i_EQ_INC20 < ARPT60_or_SEV_DEP_or_WI < 0.2_at d_urb} \cdot 100}$$

Methodological issues:

- There is no single, universally preferred definition of rural areas, nor is there a single rural definition that can serve all policy purposes. EU-SILC survey uses a definition based on human density.
- Following the human density criterion is possible urban areas to be characterised as rural, especially in the case of densely populated areas that are part of regions dominated by mountains with small unincorporated communities.
- Narrowly defined definitions can direct attention to specific populations; they also have the potential consequence of eliminating from policy eligibility places that should be covered.
- The proposed 3-category breakdown, focusing on population density rather than on land use, has been retained by the Task Force because it is an acceptable compromise from a user point of view, because it doesn't necessitate additional burden on respondents or statistical offices and because this classification is currently already in use in several harmonised social surveys.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)
- Time
- Degree of urbanisation (DEG_URB): densely-populated area (at least 500 inhabitants/km²/intermediate urbanized area (between 100 and 499 inhabitants/km²/thinly-populated area (less than 100 inhabitants/km²)

Reference period: Survey year for degree of urbanization. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _peps13.sas (VAR_AROPE.sas)

4.1.1.10 Children at risk of poverty or social exclusion by highest education level of their parents (population aged 0 to 17 years)



Dataset: Children at-risk-of poverty or social exclusion by highest education level of their parents (population aged 0 to 17 years)

Dissemination tree code: <u>ilc_peps60</u> **Data source:** EU-SILC

Description: Children (as percentage of persons in the total population aged 0 to 17) and in the relevant parents' education level breakdowns living in the household who are <u>at-risk-of-poverty</u> or <u>severely materially deprived</u> or <u>living in a household with very low work intensity</u>.

Key indicator(s) included in the dataset: At-risk-of-poverty or social exclusion (EU2020)

Policy relevance:

The promotion and protection of the rights of the child is one of the objectives of the EU 2020 Agenda. The Europe 2020 Strategy sets out a vision for the 21st century of a Europe where the children of today will have a better education, access to the services and to the resources they need to grow up^6 .

Statistical population: Population aged 0 to 17 living in private households. People with missing values for equivalised disposable income, age or with missing education level for mother and father are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an <u>Equivalised disposable Income (EQ_INC)</u> (after social transfer) (EQ_INC20) below the <u>Risk of poverty threshold (ARPTXX)</u>, which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone (see <u>Material deprivation (MD)</u>).

A person living in household with low work intensity a person living in a household with very work intensity (WI) below a threshold set at 0.20.

Educational level (attainment) of a person is the highest level of an educational programme the person has successfully completed and the study field of this programme. The educational classification to be used is the International Standard Classification of Education (ISCED 1997) coded according to the seven ISCED-97 categories. The expression 'level successfully completed' is associated with obtaining a certificate or a diploma when there is a certification. In cases where there is no certification, successful completion must be associated with full attendance or acquired competences to access the upper level. Persons who have not completed their studies should be coded according to the highest level they have completed.

Other concepts: Equivalised disposable Income (EQ_INC), Work Intensity (WI), Material deprivation (MD), Age

Calculation method: <u>At-risk-of-poverty or social exclusion (AROPEagex)</u> broken down by parents' highest level of education ($AROPEagex_{at_HHISCED}$) is calculated as the percentage of children, in each parents' highest education level group who are at-risk-of-poverty (EQ_INC20<ARPT60) or severely deprived (SEV_DEP) or living in a household with low

⁶ European Commission – "An EU Agenda for the Rights of the child" [COM(2011) 60]

work intensity (WI<0.2) over the total population of children in that breakdown (i.e. parents' highest educational level).

The weight variable used is the Adjusted Cross Sectional Weight (RB050a). \sum RB050a_i

$$AROPEagex_{at_HHISCED} = \frac{\forall i_EQ_INC20 < ARPT60_or_SEV_DEP_or_WI < 0.2_at~HHISCED}{\sum RB050a_i} \cdot 100$$

, where *agex* takes the values: less than 6 years, less than 18 years, from 6 to 11 years, from 12 to 17 years.

Methodological issues:

- Unless specified, at-risk-of-poverty rates are assumed to be 'after social transfers' (i.e. they include social benefits such as pensions and unemployment benefits).
- Unless specified, at-risk-of-poverty rates relate to the at-risk-of-poverty threshold that is calculated for the total population of a member state at 60% median equivalised disposable income level. The severe deprivation threshold is set to four and the low work intensity threshold is 20%. The choice of these cut-off thresholds is arbitrary⁷; Eurostat calculates a range of complementary poverty rates according to different thresholds.
- Income poverty risk at a given point in time may not necessarily imply low living standards in the short term, for example if the persons at risk have access to savings, to credit, to private insurance, tax credits, to financial assistance from friends and relatives etc. In particular, the cumulative impact of extended periods at risk is to be further assessed.
- Measuring incomes at the level of private households may have certain implications. The exclusion of collective households might lead to an underrepresentation of certain groups (e.g. the elderly, persons with disabilities).
- Highest educational level of children's parents refers to children living in a household with one or both parents and to the highest level of education attained by (at least one of) the parents. Data are classified according to the International Standard Classification of Education (ISCED): low education corresponds to ISCED levels 0-2 (pre-primary, primary and lower secondary education); medium education corresponds to ISCED levels 3 and 4 (upper secondary and post-secondary non-tertiary education) and high education corresponds to ISCED levels 5 and 6 (tertiary education).
- In face of the diversity of national education systems (with regard to curricula, compulsory schooling ages, equivalences between qualifications and other elements) one should be careful in making cross-country comparisons.
- Persons who have never been in education (and/or illiterate) are excluded from the calculation of the indicator.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

• Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU

⁷ European Commission (2011). The measurement of extreme poverty in the European Union. European Commission, Directorate General for Employment, Social Affairs and Inclusion, January 2011

- Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Age (AGE): Less than 6 years/Less than 18 years/ From 6 to 11 years/ From 12 to 17 years
- Level of education (ISCED97): Pre-primary, primary and lower secondary education (levels 0-2)/ Upper secondary and post-secondary non-tertiary education (levels 3 and 4)/ First and second stage of tertiary education (levels 5 and 6)

Reference period: Survey year for level of education (ISCED97) of the parents and for the variables related to the materially deprived items in question, except for the variables on arrears that refer to the last 12 months. Age is the age of the respondent at the end of income reference period; household type is also based on the Age variable. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: peps60.sas (VAR_AROPE.sas, VAR.HHISCED)

4.1.2 Intersections between sub-populations of Europe 2020 indicators on poverty and social exclusion (ilc_pees)

4.1.2.1 Intersections of Europe 2020 Poverty Target Indicators by age and sex



Dataset: Intersections of Europe 2020 Poverty Target Indicators by age and sex **Dissemination tree code:** <u>ilc_pees01</u> **Data source:** EU-SILC

Description: Persons (as percentage of persons in the total population or as thousands of persons) in the relevant age and sex breakdowns who face exclusively one or combinations of the three different types of risks of poverty and social exclusion: <u>at-risk-of-poverty</u>, <u>severe material deprivation</u>, <u>household with low work intensity</u>

- Population at-risk-of-poverty but **not** severely deprived and **not** living in a household with low work intensity (R_NDEP_NLOW)
- Population at-risk-of-poverty but **not** severely deprived but living in a household with low work intensity (R NDEP LOW)
- Population at-risk-of-poverty, severely deprived but **not** living in a household with low work intensity (R_DEP_NLOW)
- Population at-risk-of-poverty, severely deprived and living in a household with low work intensity (R_DEP_LOW)
- Population **not** at-risk-of-poverty, **not** severely deprived but living in a household with low work intensity (NR_NDEP_LOW)
- Population **not** at-risk-of-poverty but severely deprived and **not** living in a household with low work intensity (NR_DEP_NLOW)
- Population **not** at-risk-of-poverty but severely deprived and living in a household with low work intensity (NR_DEP_LOW)
- Population **neither** at-risk-of-poverty **nor** severely deprived **nor** living in a household with low work intensity (NR_NDEP_NLOW)

Key indicator(s) included in the dataset: People at-risk-of-poverty or social exclusion (EU2020)

Policy relevance: Social inclusion has long been a key part of the European Union's (EU) policies. The overriding goal is to reduce substantially the number of people at-risk-of-poverty or social exclusion, thereby creating a socially inclusive society. However, as multi-dimensional concepts, poverty and social exclusion cannot easily be measured through statistics. As a result, both monetary and non-monetary indicators have been developed, such as the at-risk-of-poverty rate, the at-risk-of-poverty threshold, the severe material deprivation rate and the share of people living in households with very low work intensity.

Social exclusion arises from multiple sources, some endogenous such as sex, age and some exogenous such as poverty, material deprivation, work. Poverty has a differential impact on women and men, on children, the elderly and the rest of the population, based on their different roles and responsibilities.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income, activity status, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit:** Percentage of people in the total population, thousands of persons

Main concepts used:

Persons at-risk-poverty are those with an <u>equivalised disposable income</u> (after social transfer) (EQ_INC20) below the at-risk-of-poverty threshold (ARPT60), which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone.

A persons living in household with very low <u>work intensity</u> is a person living in a household with work intensity (WI) below a threshold set at 0.20.

Other concepts: <u>Equivalised disposable income (EO_INC20)</u>, <u>Work Intensity (WI)</u>, <u>Material Deprivation</u>, Age

Calculation method: The intersections of the Europe 2020 Poverty Target Indicators comprise the eight indicators described in the **Description** above. For the calculation of each indicator broken down by age and sex $(AROPE[A]_{at_age/sex})$ we use the percentage of

people (or thousands of people) in each age group and sex who face the risk of poverty or social exclusion (defined by the intersections of the three main risks) over the total population in that breakdown (i.e. age group and sex). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$AROPE[A]_{at_age/sex} = \frac{\sum_{\forall i \in A_at_age/sex} RB050a_{i}}{\sum_{\forall i \in A} RB050a_{i}} \cdot 100$$

$$AROPE[A]_{at_age/sex} = \frac{\sum_{\forall i \in A_at_age/sex}}{1000}$$

, where A is one of the subpopulations: R_NDEP_NLOW, R_NDEP_LOW, R_DEP_NLOW, R_DEP_LOW, NR_NDEP_LOW, NR_DEP_LOW, NR_DEP_LOW, NR_NDEP_NLOW

Methodological issues:

- Unless specified, at-risk-of-poverty rates are assumed to be 'after social transfers' (i.e. they include social benefits such as pensions and unemployment benefits).
- Unless specified, at-risk-of-poverty rates relate to the at-risk-of-poverty threshold that is calculated for the total population of a member state at 60% median equivalised disposable income level. The severe deprivation threshold is set to four

and the low work intensity thresshold is 20%. The choice of these cut-off thresholds is arbitrary⁸; Eurostat calculates a range of complementary poverty rates according to different thresholds.

- Income poverty risk at a given point in time may not necessarily imply low living standards in the short term, for example if the persons at risk have access to savings, to credit, to private insurance, tax credits, to financial assistance from friends and relatives etc. In particular, the cumulative impact of extended periods at risk is to be further assessed.
- Measuring incomes at the level of private households may have certain implications. The exclusion of collective households might lead to an underrepresentation of certain groups (e.g. the elderly, persons with disabilities).

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/less than 18 years/from 18 to 49 years/from 18 to 64 years/18 years or over/ from 50 to 64 years/65 years or over

Reference period: Survey year for Sex and also for variables related to the materially deprived items in question, except for the variables on arrears that refer to the last 12 months. Age is the age of the respondent at the end of income reference period. Work intensity of the household refers to the number of months that all working age household members have been working during the income reference year. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: pees01.sas

4.1.2.2 Intersections of Europe 2020 Poverty Target Indicators by most frequent activity status (population aged 18 and over)



Dataset: Intersections of Europe 2020 Poverty Target Indicators by most frequent activity status (population aged 18 and over) **Dissemination tree code:** <u>ilc_pees02</u>

Data source: EU-SILC

⁸ The measurement of extreme poverty in the European Union. European Commission, Directorate General for Employment, Social Affairs and Inclusion, January 2011.

Description: The percentage of persons in the total population and in the relevant age, sex and activity status breakdowns who face exclusively one or combinations of the three different types of risks of poverty and social exclusion: <u>at-risk-of-poverty</u>, <u>severe material</u> <u>deprivation</u>, <u>household with low work intensity</u>

- Population at-risk-of-poverty but **not** severely deprived and **not** living in a household with low work intensity (R_NDEP_NLOW)
- Population at-risk-of-poverty but **not** severely deprived but living in a household with low work intensity (R_NDEP_LOW)
- Population at-risk-of-poverty, severely deprived but **not** living in a household with low work intensity (R_DEP_NLOW)
- Population at-risk-of-poverty, severely deprived and living in a household with low work intensity (R_DEP_LOW)
- Population **not** at-risk-of-poverty, **not** severely deprived but living in a household with low work intensity (NR_NDEP_LOW)
- Population **not** at-risk-of-poverty but severely deprived and **not** living in a household with low work intensity (NR_DEP_NLOW)
- Population **not** at-risk-of-poverty but severely deprived and living in a household with low work intensity (NR_DEP_LOW)
- Population **neither** at-risk-of-poverty **nor** severely deprived **nor** living in a household with low work intensity (NR_NDEP_NLOW)

Key indicator(s) included in the dataset: People at-risk-of-poverty or social exclusion (EU2020)

Policy relevance: Social inclusion has long been a key part of the European Union's (EU) policies. The overriding goal is to reduce substantially the number of people at-risk-of-poverty or social exclusion, thereby creating a socially inclusive society. However, as multi-dimensional concepts, poverty and social exclusion cannot easily be measured through statistics. As a result, both monetary and non-monetary indicators have been developed, such as the at-risk-of-poverty rate, the at-risk-of-poverty threshold, the severe material deprivation rate and the share of people living in households with very low work intensity.

Employment is identified in European policy debates as a key mechanism for offering protection against social exclusion and poverty. More specifically work is one of the main mechanisms for an overall societal integration. The ability to enter the labor market is a central factor for the development of persons. In the long run, having versus not having work sets the agenda for the integration into or exclusion from society.

Statistical population: Population aged 18 years and over living in private households. People with less than 7 months declared in the calendar of activities are excluded. People with missing values for equivalised disposable income or activity status are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an <u>equivalised disposable income</u> (after social transfer) (EQ_INC20) below the at-risk-of-poverty threshold (ARPT60), which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone.

A persons living in household with very low <u>work intensity</u> is a person living in a household with work intensity (WI) below a threshold set at 0.20.

The **most frequent activity status** is the status (employed – employees, employed except employees, unemployed, retired, other inactive) that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. (Activity Status (ACTSTA))

Other concepts: <u>Equivalised disposable income (EO_INC20)</u>, <u>Work Intensity (WI)</u>, <u>Material Deprivation</u>, Age

Calculation method: The intersections of the Europe 2020 Poverty Target Indicators comprise the eight indicators described in the **Description** above. For the calculation of each indicator broken down by age, sex and activity status (*wstatus*) ($AROPE[A]_{at age/sex/wstatus}$)

we use the percentage of people in each age, sex and activity statut group who face the risk of poverty or social exclusion (defined by the intersections of the three main risks) over the total population in that breakdown (i.e. age group, sex, activity status). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$AROPE[A]_{at_age/sex/wstatus} = \frac{\sum_{\forall i \in A_at_age/sex/wstatus}}{\sum_{\forall i \in A} RB050a_{i}} \cdot 100$$

, where *A* is one of the subpopulations: R_NDEP_NLOW, R_NDEP_LOW, R_DEP_NLOW, R_DEP_LOW, NR_NDEP_LOW, NR_DEP_NLOW, NR_NDEP_NLOW

Methodological issues:

- The most frequent activity status is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. Consequently, where an individual provides information on his activity status over 12 months, his most frequent activity status will be the status he declares to have occupied for at least 7 months. Individuals who have spent only half or less than the total number of declared months in any activity status are excluded from the computation. People with less than 7 months declared in the calendar of activities are excluded.
- The activity statuses cannot be considered as a perfectly hierarchical structure. Due to the construction of the activity statuses, the subset of the total population 'employed persons' will contain more than the sum of 'employees' and 'employed persons except employees'. The same holds for the subset 'not employed persons'. That is, the breakdowns of 'employed persons' and 'not employed persons' are not exhaustive. This is the case because persons who spend less than half of the reported time in two or more breakdowns of 'employed persons' or 'not employed persons' may qualify as

- being 'employed person' or 'not employed person' but not any of the breakdowns.
- The most frequent activity status for each month is based on a self-assessment by the interviewees. Therefore, it may not be entirely consistent with the ILO coding that is applied in the European Union Labour Force Survey.
- This indicator measures activity status at the individual level.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Activity status (WSTATUS): Population/employed persons/employees/employed persons except employees/not employed persons/unemployed persons/retired persons/other inactive persons

Reference period: Survey year for sex and also for variables related to the materially deprived items in question, except for the variables on arrears that refer to the last 12 months. Age is the age of the respondent at the end of income reference period. Previous to survey year for activity status. Work intensity of the household refers to the number of months that all working age household members have been working during the income reference year. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: pees02.sas

4.1.2.3 Intersections of Europe 2020 Poverty Target Indicators by income quintile



Dataset: Intersections of Europe 2020 Poverty Target Indicators by income quintile **Dissemination tree code:** <u>ilc_pees03</u> **Data source:** EU-SILC

Description: The persons as percentage of persons in the total population and in the relevant income quintile breakdown who face exclusively one or combinations of the three different types of risks of poverty and social exclusion: <u>at-risk-of-poverty</u>, <u>severe material</u> <u>deprivation</u>, <u>household with low work intensity</u>

- Population at-risk-of-poverty but **not** severely deprived and **not** living in a household with low work intensity (R_NDEP_NLOW)
- Population at-risk-of-poverty but **not** severely deprived but living in a household with low work intensity (R_NDEP_LOW)
- Population at-risk-of-poverty, severely deprived but **not** living in a household with low work intensity (R_DEP_NLOW)
- Population at-risk-of-poverty, severely deprived and living in a household with low work intensity (R_DEP_LOW)

- Population **not** at-risk-of-poverty, **not** severely deprived but living in a household with low work intensity (NR_NDEP_LOW)
- Population **not** at-risk-of-poverty but severely deprived and **not** living in a household with low work intensity (NR_DEP_NLOW)
- Population **not** at-risk-of-poverty but severely deprived and living in a household with low work intensity (NR_DEP_LOW)
- Population **neither** at-risk-of-poverty **nor** severely deprived **nor** living in a household with low work intensity (NR_NDEP_NLOW)

Key indicator(s) included in the dataset: People at-risk-of-poverty or social exclusion (EU2020)

Policy relevance: Social inclusion has long been a key part of the European Union's (EU) policies. The overriding goal is to reduce substantially the number of people at-risk-of-poverty or social exclusion, thereby creating a socially inclusive society. However, as multi-dimensional concepts, poverty and social exclusion cannot easily be measured through statistics. As a result, both monetary and non-monetary indicators have been developed, such as the at-risk-of-poverty rate, the at-risk-of-poverty threshold, the severe material deprivation rate and the share of people living in households with very low work intensity. This indicator in particular measures income inequalities for the different groups of people facing different types of risks of poverty or social exclusion.

Statistical population: All persons living in private households. People with missing values for equivalised disposable incomes or activity status are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit:** Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an <u>equivalised disposable income</u> (after social transfer) (EQ_INC20) below the at-risk-of-poverty threshold (ARPT60), which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone.

A persons living in household with very low <u>work intensity</u> is a person living in a household with work intensity (WI) below a threshold set at 0.20.

Other concepts: Inter – Quantile interval, <u>Equivalised disposable income (EQ_INC20)</u>, <u>Work Intensity (WI)</u>, <u>Material Deprivation</u>, Age

Calculation method: The intersections of the Europe 2020 Poverty Target Indicators comprise the eight indicators described in the **Description** above. For the calculation of each indicator broken down by quantile $(AROPE[A]_{at_quantile})$ we use the percentage of people in each quantile who face the risk of poverty or social exclusion (defined by the intersections of the three main risks) over the total population in that breakdown (i.e. quantile). The

weight variable used is the Adjusted Cross Sectional Weight (RB050a) $\sum RB050a_i$

$$AROPE[A]_{at_quantile} = \frac{\forall i \in A_at_quantile}{\sum_{\forall i \in A} RB050a_i} \cdot 100$$

, where A is one of the subpopulations: R_NDEP_NLOW, R_NDEP_LOW, R_DEP_NLOW, R_DEP_LOW, NR_NDEP_LOW, NR_DEP_NLOW, NR_NDEP_NLOW

Methodological issues: -

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Quintile: Total/first quintile/second quintile/third quintile/fourth quintile/fifth quintile

Reference period: Survey year for variables related to the materially deprived items in question, except for the variables on arrears that refer to the last 12 months. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: pees03.sas

4.1.2.4 Intersections of Europe 2020 Poverty Target Indicators by type of household



Dataset: Intersections of Europe 2020 Poverty Target Indicators by type of household **Dissemination tree code:** <u>ilc_pees04</u> **Data source:** EU-SILC

Description: The persons as percentage of persons in the total population and in the relevant household type breakdown who face exclusively one or combinations of the three different types of risks of poverty and social exclusion: <u>at-risk-of-poverty</u>, <u>severe material deprivation</u>, <u>household with low work intensity</u>

- Population at-risk-of-poverty but **not** severely deprived and **not** living in a household with low work intensity (R_NDEP_NLOW)
- Population at-risk-of-poverty but **not** severely deprived but living in a household with low work intensity (R_NDEP_LOW)
- Population at-risk-of-poverty, severely deprived but **not** living in a household with low work intensity (R_DEP_NLOW)
- Population at-risk-of-poverty, severely deprived and living in a household with low work intensity (R_DEP_LOW)
- Population **not** at-risk-of-poverty, **not** severely deprived but living in a household with low work intensity (NR_NDEP_LOW)
- Population **not** at-risk-of-poverty but severely deprived and **not** living in a household with low work intensity (NR_DEP_NLOW)
- Population **not** at-risk-of-poverty but severely deprived and living in a household with low work intensity (NR_DEP_LOW)
- Population **neither** at-risk-of-poverty **nor** severely deprived **nor** living in a household with low work intensity (NR_NDEP_NLOW)

Key indicator(s) included in the dataset: People at-risk-of-poverty or social exclusion (EU2020)

Policy relevance: Although the initial concept of relative income poverty has been extended to cover the non-monetary dimensions of poverty (material deprivation) and situations of exclusion from the labour market, it is of interest to see the relation of the broader concept of poverty and social exclusion with household income. It is therefore very relevant to analyse why some groups with higher income experience poverty and social exclusion. The low-income population is in any case included in the risk-of-poverty element.

Besides the income inequalities between countries, the variation of average household incomes between different types of households is also very notable.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income, activity status or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an <u>equivalised disposable income</u> (after social transfer) (EQ_INC20) below the at-risk-of-poverty threshold (ARPT60), which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone.

A persons living in household with very low <u>work intensity</u> is a person living in a household with work intensity (WI) below a threshold set at 0.20.

Other concepts: Household types (HHTYP), <u>Equivalised disposable income</u> (EQ INC20), <u>Work Intensity (WI)</u>, <u>Material Deprivation</u> **Calculation method:** The intersections of the Europe 2020 Poverty Target Indicators comprise the eight indicators described in the **Description** above. For the calculation of each indicator broken down by household type (*HHTYP*) (*AROPE*[A]_{*at_HHTYP*}) we use the percentage of people in each household type who face the risk of poverty or social exclusion (defined by the intersections of the three main risks) over the total population in that breakdown (i.e. household type). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$AROPE[A]_{at_HHTYP} = \frac{\sum_{\forall i \in A_at_HHTYP} RB050a_{i}}{\sum_{\forall i \in A} RB050a_{i}} \cdot 100$$

, where A is one of the subpopulations: R_NDEP_NLOW, R_NDEP_LOW, R_DEP_NLOW, R_DEP_LOW, NR_NDEP_LOW, NR_DEP_NLOW, NR_DEP_NLOW

Methodological issues:

- The classification of households is not mutually exclusive. A single man, for example, is included in both the category "households without dependent children" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household Type (HHTYP): Single person/single person with dependent children/single female/single male/two or more adults without dependent children/two or more adults with dependent children/households without dependent children/households with dependent children

Reference period: Survey year for variables related to the materially deprived items in question, except for the variables on arrears that refer to the last 12 months. Age is the age of the respondent at the end of income reference period; household type is also based on the Age variable. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: pees04.sas

4.1.2.5 Intersections of Europe 2020 Poverty Target Indicators by education level (population aged 18 and over)



Dataset: Intersections of Europe 2020 Poverty Target Indicators by education level (population aged 18 and over)

Dissemination tree code: <u>ilc_pees05</u>

Data source: EU-SILC

Description: The persons as percentage of persons in the total population and in the relevant education level breakdowns who face exclusively one or combinations of the three different types of risks of poverty and social exclusion: <u>at-risk-of-poverty</u>, <u>severe material deprivation</u>, <u>household with low work intensity</u>

- Population at-risk-of-poverty but **not** severely deprived and **not** living in a household with low work intensity (R_NDEP_NLOW)
- Population at-risk-of-poverty but **not** severely deprived but living in a household with low work intensity (R_NDEP_LOW)
- Population at-risk-of-poverty, severely deprived but **not** living in a household with low work intensity (R_DEP_NLOW)
- Population at-risk-of-poverty, severely deprived and living in a household with low work intensity (R_DEP_LOW)
- Population **not** at-risk-of-poverty, **not** severely deprived but living in a household with low work intensity (NR_NDEP_LOW)
- Population **not** at-risk-of-poverty but severely deprived and **not** living in a household with low work intensity (NR_DEP_NLOW)
- Population **not** at-risk-of-poverty but severely deprived and living in a household with low work intensity (NR_DEP_LOW)
- Population **neither** at-risk-of-poverty **nor** severely deprived **nor** living in a household with low work intensity (NR_NDEP_NLOW)

Key indicator(s) included in the dataset: People at-risk-of-poverty or social exclusion (EU2020)

Policy relevance: Social inclusion has long been a key part of the European Union's (EU) policies. The overriding goal is to reduce substantially the number of people at-risk-of-poverty or social exclusion, thereby creating a socially inclusive society. However, as multi-dimensional concepts, poverty and social exclusion cannot easily be measured through statistics. As a result, both monetary and non-monetary indicators have been developed, such as the at-risk-of-poverty rate, the at-risk-of-poverty threshold, the severe material deprivation rate and the share of people living in households with very low work intensity.

The role of education in the process of social exclusion, employment and active citizenship has yet to be fully elucidated. Education or schooling increases productivity as it equips individuals' with skills and knowledge. As productivity is reflected in earnings and rates of labor market participation, education offers an important means of social mobility, particularly for the poor. Widespread changes in the economy such as the emergence of high-level service sector jobs have opened up important opportunities, to those with the necessary levels of education. The level of education has a consistent and strong impact on the risk of poverty or social exclusion.

Statistical population: Population aged 18 years and over living in private households. People with missing values for equivalised disposable income, activity status or education level are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an <u>equivalised disposable income</u> (after social transfer) (EQ_INC20) below the at-risk-of-poverty threshold (ARPT60), which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone.

A persons living in household with very low <u>work intensity</u> is a person living in a household with work intensity (WI) below a threshold set at 0.20.

Educational level (attainment) of a person is the highest level of an educational programme the person has successfully completed and the study field of this programme. The educational classification to be used is the International Standard Classification of Education (ISCED 1997) coded according to the seven ISCED-97 categories.

Other concepts: <u>Equivalised disposable income (EQ INC20)</u>, <u>Work Intensity (WI)</u>, <u>Material Deprivation</u>

Calculation method: The intersections of the Europe 2020 Poverty Target Indicators comprise the eight indicators described in the **Description** above. For the calculation of each indicator broken down by education level (*ISCED97*) ($AROPE[A]_{at_ISCED97}$) we use the percentage of people in each household type who face the risk of poverty or social exclusion (defined by the intersections of the three main risks) over the total population in that breakdown (i.e. education level). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$AROPE[A]_{at_ISCED97} = \frac{\sum_{\forall i \in A_at_ISCED97}}{\sum_{\forall i \in A} RB050a_{i}} \cdot 100$$

, where *A* is one of the subpopulations: R_NDEP_NLOW, R_NDEP_LOW, R_DEP_NLOW, R_DEP_LOW, NR_NDEP_LOW, NR_DEP_NLOW, NR_NDEP_NLOW

Methodological issues:

- ISCED refers to the International Standard Classification of Education, developed by UNESCO. The version of the classification that is applied for this indicator follows the 1997 version of ISCED.
- In face of the diversity of national education systems (with regard to curricula, compulsory schooling ages, equivalences between qualifications-and other elements) one should be careful in making cross-country comparisons.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Education level (ISCED97): All ISCED 1997 levels/pre-primary, primary and lower secondary education (levels 0-2)/upper secondary and post-secondary non-tertiary education (levels 3 and 4) /first and second stage of tertiary education (levels 5 and 6))

Reference period: Survey year for Education level. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: pees05.sas

4.1.2.6 Intersections of Europe 2020 Poverty Target Indicators by broad group of citizenship (population aged 18 and over)



Dataset: Intersections of Europe 2020 Poverty Target Indicators by broad group of citizenship (population aged 18 and over)

Dissemination tree code: <u>ilc_pees06</u>

Data source: EU-SILC

Description: The persons as percentage of persons in the total population and in the relevant group of citizenship breakdown who face exclusively one or combinations of the three different types of risks of poverty and social exclusion: <u>at-risk-of-poverty</u>, <u>severe material deprivation</u>, <u>household with low work intensity</u>

- Population at-risk-of-poverty but **not** severely deprived and **not** living in a household with low work intensity (R_NDEP_NLOW)
- Population at-risk-of-poverty but **not** severely deprived but living in a household with low work intensity (R_NDEP_LOW)
- Population at-risk-of-poverty, severely deprived but **not** living in a household with low work intensity (R_DEP_NLOW)
- Population at-risk-of-poverty, severely deprived and living in a household with low work intensity (R_DEP_LOW)
- Population **not** at-risk-of-poverty, **not** severely deprived but living in a household

- with low work intensity (NR_NDEP_LOW)
- Population **not** at-risk-of-poverty but severely deprived and **not** living in a household with low work intensity (NR_DEP_NLOW)
- Population **not** at-risk-of-poverty but severely deprived and living in a household with low work intensity (NR_DEP_LOW)
- Population **neither** at-risk-of-poverty **nor** severely deprived **nor** living in a household with low work intensity (NR_NDEP_NLOW)

Key indicator(s) included in the dataset: People at-risk-of-poverty or social exclusion (EU2020)

Policy relevance: Social inclusion has long been a key part of the European Union's (EU) policies. The overriding goal is to reduce substantially the number of people at-risk-of-poverty or social exclusion, thereby creating a socially inclusive society. However, as multi-dimensional concepts, poverty and social exclusion cannot easily be measured through statistics. As a result, both monetary and non-monetary indicators have been developed, such as the at-risk-of-poverty rate, the at-risk-of-poverty threshold, the severe material deprivation rate and the share of people living in households with very low work intensity.

In relation to citizenship in particular non-EU nationals are occasionally exposed to a multiple times higher risk of poverty and social exclusion than the "indigenous" population. Non-nationals, and in particular third-country nationals, may be subject to immigration restrictions on entering and remaining within a country, as well as limitations on access to the labour market. EU nationals have the right to live in other EU Member States, although there remain some transitional labour market restrictions. The integration of third-country nationals has been identified as a particular policy priority at European level, as well as in many Member States⁹.

Statistical population: Population aged 18 years and over living in private households. People with missing values for equivalised disposable income, activity status or citizenship are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an <u>equivalised disposable income</u> (after social transfer) (EQ_INC20) below the at-risk-of-poverty threshold (ARPT60), which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone.

A persons living in household with very low work intensity is a person living in a

⁹ <u>Eurostat (2011). 'Migrants in Europe. A statistical portrait of the first and second generation'</u> (<u>http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-31-10-539/EN/KS-31-10-539-EN.PDF</u>).

household with work intensity (WI) below a threshold set at 0.20.

Citizenship is defined as the particular legal bond between the individual and his/her State acquired by birth or naturalisation, whether by declaration, choice, option, marriage or other means according to the national legislation. It generally corresponds to the country issuing the passport.

Other concepts: Citizenship group (CITIZEN), <u>Equivalised disposable income</u> (EQ INC20), <u>Work Intensity (WI)</u>, <u>Material Deprivation</u>

Calculation method: The intersections of the Europe 2020 Poverty Target Indicators comprise the eight indicators described in the **Description** above. For the calculation of each indicator broken down by citizenship group (*CITIZEN*) (*AROPE*[A]_{*at_CITIZEN*}) we use the percentage of people in each citizenship group who face the risk of poverty or social exclusion (defined by the intersections of the three main risks) over the total population in that breakdown (i.e. citizenship group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$AROPE[A]_{at_CITIZEN} = \frac{\sum_{\forall i \in A_at_CITIZEN} RB050a_{i}}{\sum_{\forall i \in A} RB050a_{i}} \cdot 100$$

, where *A* is one of the subpopulations: R_NDEP_NLOW, R_NDEP_LOW, R_DEP_NLOW, R_DEP_LOW, NR_NDEP_LOW, NR_DEP_NLOW, NR_NDEP_NLOW

Methodological issues:

- Citizenship is defined as the particular legal bond between an individual and his/her State, acquired by birth or naturalization, whether by declaration, option, marriage or other means according to the national legislation.
- For persons with multiple citizenship and where one of the citizenship is the one of the country of residence, this latter citizenship is recorded/coded.
- Citizenship is referred to the current (at the time of survey) national boundaries and not the boundaries at the time of the reference period. In the case of citizenships that no longer exist, the present-day borders of the country are used.
- Current EU-SILC question only explores the stock of non-EU nationals, with no information on how long they have been in the country.
- The EU-SILC only covers private households, with persons living in collective households and in institutions for asylum seekers and migrant workers excluded from the target population
- There is no information on ethnic status of respondents. So ethnic minorities, including the Roma cannot be identified in EU-SILC. In addition, the categorization of the groups into "EU" and "non-EU" is rather broad and the groups distinguished are too large and heterogeneous.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)
- Time
- Citizenship group (CITIZEN): EU27-countries except reporting country/non EU27countries nor reporting country/foreign country/reporting country

Reference period: Survey year for citizenship. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: pees06.sas

4.1.2.7 Intersections of Europe 2020 Poverty Target Indicators by broad group of country of birth (population aged 18 and over)



Dataset: Intersections of Europe 2020 Poverty Target Indicators by broad group of country of birth (population aged 18 and over)

Dissemination tree code: <u>ilc_pees07</u>

Data source: EU-SILC

Description: The persons as percentage of persons in the total population and in the relevant group of country of birth breakdowns who face exclusively one or combinations of the three different types of risks of poverty and social exclusion: <u>at-risk-of-poverty</u>, <u>severe material deprivation</u>, <u>household with low work intensity</u>

- Population at-risk-of-poverty but **not** severely deprived and **not** living in a household with low work intensity (R_NDEP_NLOW)
- Population at-risk-of-poverty but **not** severely deprived but living in a household with low work intensity (R_NDEP_LOW)
- Population at-risk-of-poverty, severely deprived but **not** living in a household with low work intensity (R_DEP_NLOW)
- Population at-risk-of-poverty, severely deprived and living in a household with low work intensity (R_DEP_LOW)
- Population **not** at-risk-of-poverty, **not** severely deprived but living in a household with low work intensity (NR_NDEP_LOW)
- Population **not** at-risk-of-poverty but severely deprived and **not** living in a household with low work intensity (NR_DEP_NLOW)
- Population **not** at-risk-of-poverty but severely deprived and living in a household with low work intensity (NR_DEP_LOW)
- Population **neither** at-risk-of-poverty **nor** severely deprived **nor** living in a household with low work intensity (NR_NDEP_NLOW)

Key indicator(s) included in the dataset: People at-risk-of-poverty or social exclusion (EU2020)

Policy relevance: Social inclusion has long been a key part of the European Union's (EU) policies. The overriding goal is to reduce substantially the number of people at-risk-of-poverty or social exclusion, thereby creating a socially inclusive society. However, as multi-dimensional concepts, poverty and social exclusion cannot easily be measured through statistics. As a result, both monetary and non-monetary indicators have been developed, such as the at-risk-of-poverty rate, the at-risk-of-poverty threshold, the severe material deprivation rate and the share of people living in households with very low work intensity.

Migrants are considered to be among the most vulnerable groups to experience poverty and social exclusion. In particular non-EU migrants have also been severely affected by the crisis in the context of increasing unemployment.

Statistical population: Population aged 18 years and over. People with missing values for equivalised disposable income, activity status or country of birth are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit:** Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an <u>equivalised disposable income</u> (after social transfer) (EQ_INC20) below the at-risk-of-poverty threshold (ARPT60), which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone.

A persons living in household with very low <u>work intensity</u> is a person living in a household with work intensity (WI) below a threshold set at 0.20.

Country of birth is defined as the country of residence of the mother at the time of birth. Other concepts: Country of birth group (C_BIRTH), <u>Equivalised disposable income</u> (EQ_INC20), <u>Work Intensity (WI)</u>, <u>Material Deprivation</u>

Calculation method: The intersections of the Europe 2020 Poverty Target Indicators comprise the eight indicators described in the **Description** above. For the calculation of each indicator broken down by country of birth (C_BIRTH) ($AROPE[A]_{at_C_BIRTH}$) we use the percentage of people in each country of birth group who face the risk of poverty or social exclusion (defined by the intersections of the three main risks) over the total population in that breakdown (i.e. country of birth group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$AROPE[A]_{at_C_BIRTH} = \frac{\sum_{\forall i \in A_at_C_BIRTH} RB050a_{i}}{\sum_{\forall i \in A} RB050a_{i}} \cdot 100$$

, where *A* is one of the subpopulations: R_NDEP_NLOW, R_NDEP_LOW, R_DEP_NLOW, R_DEP_LOW, NR_NDEP_LOW, NR_DEP_NLOW, NR_DEP_LOW, NR_NDEP_NLOW

Methodological issues:

- Country of birth is the country where a person was born, namely the country of usual residence of mother at the time of the birth.
- Country of birth is referred to the current (at the time of survey) national boundaries and not to the boundaries in place at the time of birth.
- In the case of countries that no longer exist (such as parts of the former Soviet Union or others), the present-day borders of the country are used.
- For person born in a place that currently belongs to a country different from the country that the place belonged to at the time of birth, the 'country' which the place belonged to currently (at the time of the survey) is recorded.
- For people born in a place which is now outside the national territory but who feel that they have always been a national citizen, the country of birth should be recorded as according to this citizenship.
- Current EU-SILC question only explores the stock of non-EU nationals, with no information on how long they have been in the country.
- Unlike citizenship, a person's country of birth does not change. The distribution by country of birth is therefore influenced not just by recent migration, but by patterns of migration flows that may have taken place many years previously. Thus, the predominant countries of birth of migrants in a country may reflect particular migration flows that took place decades earlier.
- Patterns of migration may also reflect past colonial and linguistic links, as seen in the long history of migration from the Indian subcontinent to the United Kingdom, in migration between Ireland and the United Kingdom, between Brazil and Portugal and between Ecuador and Spain and in migration from Suriname to the Netherlands.
- The EU-SILC only covers private households, with persons living in collective households and in institutions for asylum seekers and migrant workers excluded from the target population
- Migrants and more particularly recently arrived migrants are likely to be undercovered by EU-SILC. Some migrants will have been missed from the sampling frame (which is designed to ensure a representative coverage of the overall population, rather than specifically migrants). These coverage problems may be hard to assess and correct because of a lack of reliable information on the numbers of migrants in specific areas
- In Member States in which the number of migrants is very small EU-SILC, given its nature as sample survey, is not capable of fully capturing the characteristics of the people concerned.
- There is no information on ethnic status of respondents. In addition, the categorization of the groups into "EU" and "non-EU" is rather broad and the groups distinguished are too large and heterogeneous.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

• Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)

- Time
- Country of birth group (C_BIRTH): EU27-countries except reporting country/non EU27-countries nor reporting country/foreign country/reporting country)

Reference period: Constant for country of birth. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: pees07.sas

4.1.2.8 Intersections of Europe 2020 Poverty Target Indicators by tenure status



Dataset: Intersections of Europe 2020 Poverty Target Indicators by tenure status **Dissemination tree code:** <u>ilc_pees08</u> **Data source:** EU-SILC

Description: The persons as percentage of persons in the total population and in the tenure status breakdowns who face exclusively one or combinations of the three different types of risks of poverty and social exclusion: <u>at-risk-of-poverty</u>, <u>severe material deprivation</u>, <u>household with low work intensity</u>

- Population at-risk-of-poverty but **not** severely deprived and **not** living in a household with low work intensity (R_NDEP_NLOW)
- Population at-risk-of-poverty but **not** severely deprived but living in a household with low work intensity (R_NDEP_LOW)
- Population at-risk-of-poverty, severely deprived but **not** living in a household with low work intensity (R_DEP_NLOW)
- Population at-risk-of-poverty, severely deprived and living in a household with low work intensity (R_DEP_LOW)
- Population **not** at-risk-of-poverty, **not** severely deprived but living in a household with low work intensity (NR_NDEP_LOW)
- Population **not** at-risk-of-poverty but severely deprived and **not** living in a household with low work intensity (NR_DEP_NLOW)
- Population **not** at-risk-of-poverty but severely deprived and living in a household with low work intensity (NR_DEP_LOW)
- Population **neither** at-risk-of-poverty **nor** severely deprived **nor** living in a household with low work intensity (NR_NDEP_NLOW)

Key indicator(s) included in the dataset: People at-risk-of-poverty or social exclusion (EU2020)

Policy relevance:

Social inclusion has long been a key part of the European Union's (EU) policies. The overriding goal is to reduce substantially the number of people at-risk-of-poverty or social

exclusion, thereby creating a socially inclusive society. However, as multi-dimensional concepts, poverty and social exclusion cannot easily be measured through statistics. As a result, both monetary and non-monetary indicators have been developed, such as the at-risk-of-poverty rate, the at-risk-of-poverty threshold, the severe material deprivation rate and the share of people living in households with very low work intensity.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income or tenure status are excluded. Persons living in collective households and in institutions are generally excluded from the target population. Unit: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an <u>equivalised disposable income</u> (after social transfer) (EQ_INC20) below the at-risk-of-poverty threshold (ARPT60), which is set at 60 % of the national median equivalised disposable income after social transfers.

Severely Materially Deprived (SEV_DEP) are those individuals being in the state of enforced inability to pay for at least four of the nine following items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat or proteins regularly, 5) to go on holiday, 6) a television set, 7) a washing machine, 8) a car, 9) a telephone.

A persons living in household with very low <u>work intensity</u> is a person living in a household with work intensity (WI) below a threshold set at 0.20.

Tenure Status is defined a) owner (or occupied rent-free) b) tenant at prevailing market rent or at reduced rate (Tenure status (TENSTA)).

The variables used are HH020/HH021 in combination with HY100G/HY100N for distinguishing between owners with and without mortgage.

Other concepts Equivalised disposable income (EQ_INC20), Work Intensity (WI), Material Deprivation (MD)

Calculation method: The intersections of the Europe 2020 Poverty Target Indicators comprise the eight indicators described in the **Description** above. For the calculation of each indicator broken down by tenure status $(AROPE[A]_{at_TENURE})$ we use the percentage of people in each tenure status group who face the risk of poverty or social exclusion (defined by the intersections of the three main risks) over the total population in that breakdown (i.e. tenure status group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$AROPE[A]_{at_TENURE} = \frac{\sum_{\forall i \in A_at_TENURE}}{\sum_{\forall i \in A} RB050a_i} \cdot 100$$

, where *A* is one of the subpopulations: R_NDEP_NLOW, R_NDEP_LOW, R_DEP_NLOW, R_DEP_LOW, NR_NDEP_LOW, NR_DEP_NLOW, NR_NDEP_NLOW

Methodological issues:

• The accommodation tenure status is assigned to each household member

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Tenure Status (TENURE): Owner/Tenant

Reference period: Survey year for Tenure status and also for the variables related to the materially deprived items in question, except for the variables on arrears that refer to the last 12 months. Work intensity of the household refers to the number of months that all working age household members have been working during the income reference year. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: pees08.sas

4.2 Income distribution and monetary poverty (ilc_ip)

- 4.2.1 Monetary poverty (ilc_li)
- 4.2.1.1 At-risk-of-poverty thresholds



Dataset: At-risk-of-poverty thresholds **Dissemination tree code:** <u>ilc_li01</u> **Data source:** EU-SILC

Description: Five different at-risk-of poverty thresholds have been calculated as follows:

- 40% of the national median equivalised disposable income (ARPT40)
- 50% of the national median equivalised disposable income (ARPT50)
- 60% of the national median equivalised disposable income (ARPT60)
- 70% of the national median equivalised disposable income (ARPT70)
- 40% of the national mean equivalised disposable income (ARPTM40)
- 50% of the national mean equivalised disposable income (ARPTM50)
- 60% of the national mean equivalised disposable income (ARPTM60)

All thresholds have been calculated for two illustrative household types:

- Single person household
- Household with 2 adults, two dependent children under 14 years

Key indicator(s) included in the dataset: At-risk-of-poverty threshold (OMC indicator), Value of poverty threshold in PPP (JAF)

Policy relevance: In the European Council of Ministers of 1975 the poor defined as 'persons whose resources (material, cultural and social) are so limited as to exclude them from the minimum acceptable way of life in the Member State in which they live'. While this notion is multidimensional, a lack of financial resources is an important dimension of poverty. The at-risk-of-poverty threshold is a nationally defined income threshold. An income below this threshold is considered likely to hamper the individual's capacity to fully participate in society.

At the launch of the Europe2020 strategy in 2010 the European Union stated its goal of making a decisive impact on poverty by 2020, making explicit reference to the number of people living below the poverty line. A headline target of the Europe 2020 strategy is the lift of at least 20 million people out of poverty and social exclusion. Eurostat uses the 60% median threshold to calculate the at-risk-of poverty headline indicators. This choice is arbitrary. Eurostat calculates a range of complementary poverty rates according to different thresholds.

Statistical population: All persons living in the specific types of private households. People with missing values for equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Euro (from 1.1.1999)/ECU (up to 31.12.1998), Purchasing Power Standard, National currency (including 'euro fixed' series for euro area countries)

Main concepts used:

Risk of poverty threshold: The at-risk-of poverty threshold is set at XX% of the national median or mean equivalised disposable income, where XX takes the values of 40, 50, 60 and 70%.

Other concepts: Equivalised disposable Income (EQ_INC), Risk of poverty threshold (ARPTXX), Household types (HHTYP)

Calculation method: At-risk-of-poverty thresholds (ARPTXX and ARPTXXM) broken down by household type are calculated as percentage of the Median Equivalised disposable Income after social transfers (MEDIAN20) and the Mean Equivalised disposable Income after social transfers (MEAN20) respectively.

 $ARPTXX_{at_HHTYP} = XX\% \times EQ_INC_{median/at_HHTYP}$ $ARPTXXM_{at_HHTYP} = XX\% \times EQ_INC_{mean/at_HHTYP}$

The XX percentage takes the values 40, 50, 60, 70, depending on the threshold we want to calculate.

EQ_INC can be expressed in National Currency (EQ_INC20), Euros (EQ_INC20eur) or

Purchasing Power Standards (EQ_INC20ppp)

Methodological issues:

- When comparing the value of thresholds in different Member States, the thresholds are converted to Purchasing Power Standards (PPS). These convert different national currencies to a single currency, whilst controlling for differences in price levels between countries.
- The choice of the percentage of the median has major consequences with regard to the level of the poverty risk rate. On the one hand there are normative and political considerations with regard to the level of the poverty threshold. On the other hand, there are methodological issues. For instance, the choice of a lower percentage might result in a poverty threshold that is very close to the bottom of the distribution, hence more subject to problems of reliability.
- For each country, the poverty risk indicator must be assessed by looking at both the number of people whose income is below the threshold and the comparative level (in PPS) of this threshold.
- More in general, by comparing the results obtained with different thresholds within one Member state, one can assess the robustness of conclusions based on the 60% threshold.

Breakdowns: The dataset provides thresholds for the whole population and also broken down by

- Geographical Entity (GEO): Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household Type (HHTYP): Single person/two adults with two children younger than 14 years

Reference period: Age is the age of the respondent at the end of income reference period; household type is also based on the Age variable. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI01.sas

4.2.1.2 At-risk-of-poverty rate by poverty threshold, age and sex



Dataset: At-risk-of-poverty rate by poverty threshold, age and sex **Dissemination tree code:** <u>ilc_li02</u> **Data source:** EU-SILC

Description: The percentage of persons (or number of persons) in the total population and in the relevant age and sex breakdowns who are at-risk-of-poverty, i.e. with an equivalised

disposable income below the 'at-risk-of poverty thresholds':

- 40% of the national median equivalised disposable income (ARPT40)
- 50% of the national median equivalised disposable income (ARPT50)
- 60% of the national median equivalised disposable income (ARPT60)
- 70% of the national median equivalised disposable income (ARPT70)
- 40% of the national mean equivalised disposable income (ARPTM40)
- 50% of the national mean equivalised disposable income (ARPTM50)
- 60% of the national mean equivalised disposable income (ARPTM60)

Key indicator(s) included in the dataset: People at-risk-of-poverty after social transfers (EUROPE 2020), At-risk-of-poverty rate by sex and age groups (OMC), At-risk-of poverty rate (60% of median income) + value of threshold (in PPP) (JAF)

Policy relevance:

In the European Council of Ministers of 1975 the poor defined as 'persons whose resources (material, cultural and social) are so limited as to exclude them from the minimum acceptable way of life in the Member State in which they live'. While this notion is multidimensional, a lack of financial resources is an important dimension of poverty. The at-risk-of-poverty threshold is a nationally defined income threshold. An income below this threshold is considered likely to hamper the individual's capacity to fully participate in society.

At the launch of the Europe2020 strategy in 2010 the European Union stated its goal of making a decisive impact on poverty by 2020, making explicit reference to the number of people living below the poverty line. A headline target of the Europe 2020 strategy is the lift of at least 20 million people out of poverty and social exclusion. Eurostat uses the 60% median threshold to calculate the at-risk-of poverty headline indicators. This choice is arbitrary. Eurostat calculates a range of complementary poverty rates according to different thresholds.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population, thousands of persons

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the Risk of poverty threshold (ARPTXX).

Other concepts: Equivalised disposable Income (EQ_INC), Risk of poverty threshold (ARPTXX), Age

Calculation method: At-risk-of-poverty rate (ARPT) broken down by age and sex ($ARPT_{at_age/sex}$) is calculated as the percentage of people (or thousands of people) in each age and sex group who are at-risk-of-poverty (calculated for different cut-off points) over the total population in that breakdown (i.e. age group and sex). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARPT_{at_age/sex} = \frac{\frac{\forall i_EQ_INC20 < ARPTXX_at_age/sex}{\sum_{i=at_age/sex} RB050a_i} \cdot 100$$
$$ARPT_{at_age/sex} = \frac{\frac{\forall i_EQ_INC20 < ARPTXX_at_age/sex}{1000}$$

At-risk-of poverty thresholds (ARPTXX) can be any of the following: ARPT40, ARPT50, ARPT60, ARPT70, ARPTM40, ARPTM50, ARPTM60.

Methodological issues:

- Unless specified, at-risk-of-poverty rates are assumed to be 'after social transfers' (i.e. they include social benefits such as pensions and unemployment benefits).
- Income poverty risk at a given point in time may not necessarily imply low living standards in the short term, for example if the persons at risk have access to savings, to credit, to private insurance, tax credits, to financial assistance from friends and relatives etc. In particular, the cumulative impact of extended periods at risk is to be further assessed.
- An approach based on relative income poverty gives a proxy for the risk of being affected by poverty within each country, but makes it more difficult to compare the situation between countries than would be the case with a common threshold.
- Income based indicators are presented for individuals by reference to their household distribution: no information is available about the actual distribution of income between household members. The attribution of the household income to each of its members may impede a detailed analysis of the sex dimension.
- Measuring incomes at the level of private households may have certain implications. The exclusion of collective households might lead to an underrepresentation of certain groups (the elderly, persons with disabilities).

Breakdowns: The dataset provides percentages (or number of persons) for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/less than 6 years/from 6 to 10 years/from 6 to 11 years/from 11 to 15 years/from 12 to 17 years/less than 16 years/from 16 to 24 years/from 16 to 64 years/16 years or over/less than 18 years/from 18 to 24 years/from 18 to 64 years/18 years and over/from25 to 49 years/from 25 to 54 years/from 50 to 64 years/from 55 to 64 years/less than 60 years/60 years and over/less than 65 years/from 65 to 74 years/65 years or over/less than 75 years/75 years or over

Reference period: Survey year for demographic variables (Sex). Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK

(survey year).

SAS program: LI02.sas

4.2.1.3 At-risk-of-poverty rate by poverty threshold and household type



Dataset: At-risk-of-poverty rate by poverty threshold and household type **Dissemination tree code:** <u>ilc_li03</u> **Data source:** EU-SILC

Description: The percentage of persons (or number of persons) in the total population and in the relevant household breakdowns who are at-risk-of-poverty, i.e. with an equivalised disposable income below the 'at-risk-of poverty thresholds':

- 40% of the national median equivalised disposable income (ARPT40)
- 50% of the national median equivalised disposable income (ARPT50)
- 60% of the national median equivalised disposable income (ARPT60)
- 70% of the national median equivalised disposable income (ARPT70)
- 40% of the national mean equivalised disposable income (ARPTM40)
- 50% of the national mean equivalised disposable income (ARPTM50)
- 60% of the national mean equivalised disposable income (ARPTM60)

Key indicator(s) included in the dataset: People at-risk-of-poverty after social transfers (EUROPE 2020), At-risk-of-poverty rate by household type (OMC), At-risk-of poverty rate (60% of median income) + value of threshold (in PPP) (JAF)

Policy relevance:

Although the initial concept of relative income poverty has been extended to cover the nonmonetary dimensions of poverty (material deprivation) and situations of exclusion from the labour market, it is of interest to see the relation of the broader concept of poverty with household income. It is therefore very relevant to analyse why some groups with higher income experience poverty. Single parents are a case in point. Besides the income inequalities between countries, the variation of average household incomes between different types of households is also very notable.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the Risk of poverty threshold (ARPTXX).

Other concepts: Household types (HHTYP)

Calculation method: At-risk-of-poverty rate (ARPT) broken down by household type ($ARPT_{at_HHTYP}$) is calculated as the percentage of people in the relevant household type (*HHTYP*) who are at-risk-of-poverty over the total population in that breakdown (i.e. household type). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARPT_{at_HHTYP} = \frac{\forall i_EQ_INC20 < ARPTXX_at_HHTYP}{\sum_{\forall i_at_HHTYP} RB050a_{i}} \cdot 100$$

At-risk-of poverty thresholds (ARPTXX) can be any of the following: ARPT40, ARPT50, ARPT60, ARPT70, ARPTM40, ARPTM50, ARPTM60.

Methodological issues:

- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household Type (HHTYP): Total/single person/one adult younger than 64/one adult younger than 65 years/one adult older than 65 years/single person with dependent children/single female/single male/two adults/two adults younger than 65 years/two adults, at least one aged 65 years and over/two adults with one dependent child/two adults with two dependent children/two adults with three or more dependent children/two or more adults without dependent children/two or more adults with dependent children/three or more adults with dependent children/three or more adults/three or more adults with dependent children/households without dependent children/households with dependent children

Reference period: Age is the age of the respondent at the end of income reference period; household type is also based on the Age variable. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI03.sas

4.2.1.4 At-risk-of-poverty rate by poverty threshold and most frequent activity in the previous year



Dataset: At-risk-of-poverty rate by poverty threshold and most frequent activity in the previous year

Dissemination tree code: <u>ilc_li04</u> **Data source**: EU-SILC

Description: The percentage of persons in the total population and in the relevant age, sex and activity status breakdowns who are at –risk-of-poverty, i.e. with an equivalised disposable income below the 'at-risk-of poverty thresholds':

- 40% of the national median equivalised disposable income (ARPT40)
- 50% of the national median equivalised disposable income (ARPT50)
- 60% of the national median equivalised disposable income (ARPT60)
- 70% of the national median equivalised disposable income (ARPT70)
- 40% of the national mean equivalised disposable income (ARPTM40)
- 50% of the national mean equivalised disposable income (ARPTM50)
- 60% of the national mean equivalised disposable income (ARPTM60)

Key indicator(s) included in the dataset: People at-risk-of-poverty after social transfers (EUROPE 2020), At-risk-of-poverty rate by most frequent activity in the previous year (OMC), At-risk-of poverty rate (60% of median income) + value of threshold (in PPP) (JAF)

Policy relevance: Employment is identified in European policy debates as a key mechanism, although not always sufficient, for offering protection against poverty. For households (with working age members), emploee income and/or income from self-employment are typically very important components of income. An individual's income varies greatly across the life cycle. During childhood and youth, people typically have no significant income of their own, but rather share resources within a family. Income levels peak during the working age phase, after which earned income is replaced by pensions. In the long run, having versus not having work sets the agenda for the integration into or exclusion from society.

Statistical population: Population aged 16 years and over living in private households. People with less than 7 months declared in the calendar of activities are excluded. People with missing values for equivalised disposable income, activity status, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the Risk of poverty threshold (ARPTXX).

The most frequent activity status is the status (employed – employees, employed except

employees, unemployed, retired, other inactive) that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available (Activity Status (ACTSTA))

Other concepts: Age

Calculation method: At-risk-of-poverty rate (ARPT) broken down by age, sex and activity status (*wstatus*), ($ARPT_{at_age/sex/wstatus}$) is calculated as the percentage of people in the relevant age, sex and activity status group who are at-risk-of-poverty over the total population in that breakdown (i.e. age, sex and activity status group). The weight variable used is the Personal Cross Sectional Weight (PB040).

$$ARPT_{at_age/sex/wstatus} = \frac{\forall i_EQ_INC20 < ARPTXX_at_age/sex/wstatus}{\sum_{\forall i_at_age/sex/wstatus} PB040_{i}} \cdot 100$$

At-risk-of poverty thresholds (ARPTXX) can be any of the following: ARPT40, ARPT50, ARPT60, ARPT70, ARPTM40, ARPTM50, ARPTM60.

Methodological issues:

- The most frequent activity status is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. Consequently, where an individual provides information on his activity status over 12 months, his most frequent activity status will be the status he declares to have occupied for at least 7 months. Individuals who have spent only half or less than the total number of declared months in any activity status are excluded from the computation. People with less than 7 months declared in the calendar of activities are excluded.
- The activity statuses cannot be considered as a perfectly hierarchical structure. Due to the construction of the activity statuses, the subset of the total population 'employed persons' will contain more than the sum of 'employees' and 'employed persons except employees'. The same holds for the subset 'not employed persons'. That is, the breakdowns of 'employed persons' and 'not employed persons' are not exhaustive. This is the case because persons who spend less than half of the reported time in two or more breakdowns of 'employed persons' or 'not employed persons' may qualify as being 'employed person' or 'not employed person' but not any of the breakdowns.
- The most frequent activity status for each month is based on a self-assessment by the interviewees. Therefore, it may not be entirely consistent with the ILO coding that is applied in the European Union Labour Force Survey.
- This indicator measures activity status at the individual level.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

• Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)

- Time
- Sex (SEX): Total/Male/Female
- Age: From 16 to 64 years/16 years or over/ from 18 to 64 years/18 years or over/65 years or over
- Activity status (WSTATUS): Population/employed persons/employees/employed persons except employees/not employed persons/unemployed persons/retired persons/other inactive persons

Reference period: Survey year for demographic variables (sex). Age is the age of the respondent at the end of income reference period. Previous to survey year for activity status. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI04.sas

4.2.1.5 At-risk-of-poverty rate by poverty threshold and work intensity of the household (population aged 0 to 59 years)



Dataset: At-risk-of-poverty rate by poverty threshold and work intensity of the household (population aged 0 to 59 years)

Dissemination tree code: <u>ilc_li06</u> **Data source:** EU-SILC

Description: The percentage of persons in the total population and in the relevant age, sex, household type and work intensity breakdowns who are at-risk-of-poverty, i.e. with an equivalised disposable income below the 'at-risk-of poverty thresholds':

- 40% of the national median equivalised disposable income (ARPT40)
- 50% of the national median equivalised disposable income (ARPT50)
- 60% of the national median equivalised disposable income (ARPT60)
- 70% of the national median equivalised disposable income (ARPT70)
- 40% of the national mean equivalised disposable income (ARPTM40)
- 50% of the national mean equivalised disposable income (ARPTM50)
- 60% of the national mean equivalised disposable income (ARPTM60)

Key indicator(s) included in the dataset: People at-risk-of-poverty after social transfers (EUROPE 2020), At-risk-of-poverty rate by work intensity of the household (OMC), At-risk-of poverty rate (60% of median income) + value of threshold (in PPP) (JAF)

Policy relevance: Employee income and / or income from self-employment are typically very important components of households' income. Households with several working age members who are not employed could be considered as particularly vulnerable to poverty. More specificaly the share of people living in households with very low work intensity refers to the situation of people who live in households where nobody works (or work very little), but that are not necessarily living on very low income. This indicator will be used to monitor the efforts of Member States to combat labour market exclusion. Fighting labour market exclusion will especially be a priority in countries with high shares of people living in households with very low developed welfare systems that protect people relatively well from income poverty, but may provide weak incentives and/or little support for the labour market participation of those furthest away from the labour market.

Statistical population: Population aged less than 60 years living in the specified types of private households. People with missing values for equivalised disposable income, household type, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the Risk of poverty threshold (ARPTXX).

The <u>work intensity</u> of a household is the ratio of the total number of months that all working-age household members have worked during the income reference year and the total number of months the same household members theoretically could have worked in the same period. A working-age person is a person aged 18-59 years, with the exclusion of students in the age group between 18 and 24 years. (Work Intensity (WI))

Household type: 'Dependent children' includes all persons aged below 18 as well as persons aged 18 to 24 years, living with at least one parent and economically inactive (see indicator 'at-risk-of- poverty rate by household type'). For the needs of the particular dataset the following categories of households are used: a) Households with dependent children and b) Households without dependent children (Household types (HHTYP)).

Other concepts: Age

Calculation method: At-risk-of-poverty rate (ARPT) broken down by age, sex, household type (HHTYP) and work intensity (WI) ($ARPT_{at_age/sex/HHTYP/WI}$) is calculated as the percentage of people in the relevant age, sex, household type and (household) work intensity group who are at-risk-of-poverty over the total population in that breakdown (i.e. age, sex, household type and work intensity). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARPT_{at_ge/sex/HHTYP/WI} = \frac{\forall i_EQ_INC20 < ARPTXx_at_age/sex/HHTYP/WI}{\sum_{\forall i_at_age/sex/HHTYP/WI} \cdot 100} \cdot 100$$

At-risk-of poverty thresholds (ARPTXX) can be any of the following: ARPT40, ARPT50, ARPT60, ARPT70, ARPTM40, ARPTM50, ARPTM60.

Methodological issues:

- For each working age person (aged 18 to 64) in the household that is not classified as a dependent child, two figures are computed, using the calendar of activities of the previous year:
 - a) the number of months in the previous year which the person has given information about his/her activity status (the 'workable' months)
 - b) the number of months in the previous year for which the person has been classified as 'at work'
- 'At work' comprises:
 - a) In paid employment, whether full-time or part-time
 - b) Including paid apprenticeship or training under special schemes related to employment
 - c) In self-employment (with or without employees)
 - d) Including unpaid work in family enterprise
- This indicator measures work intensity at the household level

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/less than 18 years/from 18 to 59 years/less than 60 years
- Household Type (HHTYP): Households with dependent children/households without dependent children
- Work Intensity (WORKINT): Very low work intensity [0 0.2]/low work intensity [0.2 0.45]/medium work intensity [0.45 0.55]/high work intensity [0.55 0.85]/very high work intensity [0.85 1]

Reference period: Survey year for demographic variables (sex). Age is the age of the respondent at the end of income reference period. Household type is also based on the Age variable. Work intensity of the household refers to the number of months that all working age household members have been working during the income reference year. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI06.sas

4.2.1.6 At-risk-of-poverty rate by poverty threshold and education level



Dataset: At-risk-of-poverty rate by poverty threshold and education level **Dissemination tree code:** <u>ilc_li07</u>

Data source: EU-SILC

Description: The percentage of persons in the total population and in the relevant age, sex and education level breakdowns who are at-risk-of-poverty, i.e. with an equivalised disposable income below the 'at-risk-of poverty thresholds':

- 40% of the national median equivalised disposable income (ARPT40)
- 50% of the national median equivalised disposable income (ARPT50)
- 60% of the national median equivalised disposable income (ARPT60)
- 70% of the national median equivalised disposable income (ARPT70)
- 40% of the national mean equivalised disposable income (ARPTM40)
- 50% of the national mean equivalised disposable income (ARPTM50)
- 60% of the national mean equivalised disposable income (ARPTM60)

Key indicator(s) included in the dataset: People at-risk-of-poverty after social transfers (EUROPE 2020), At-risk-of poverty rate (60% of median income) + value of threshold (in PPP) (JAF)

Policy relevance:

The role of education in the process of employment and active citizenship and so as mechanism against poverty has yet to be fully elucidated. Education or schooling increases productivity as it equips individuals' with skills and knowledge. As productivity is reflected in earnings and rates of labor market participation, education offers an important means of social mobility, particularly for the poor. Widespread changes in the economy such as the emergence of high-level service sector jobs have opened up important opportunities, to those with the necessary levels of education. The level of education has a consistent and strong impact on the risk of poverty.

Statistical population: Population aged 18 years and over living in private households. People with missing values for equivalised disposable income, sex, age or education level are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the Risk of poverty threshold (ARPTXX).

Educational level (attainment) of a person is the highest level of an educational programme the person has successfully completed and the study field of this programme. The educational classification to be used is the International Standard Classification of Education (ISCED 1997) coded according to the seven ISCED-97 categories.

Other concepts: Age

Calculation method: At-risk-of-poverty rate (ARPT) broken down by age, sex and level of education (ISCED97), ($ARPT_{at_age/sex/ISCED97}$) is calculated as the percentage of people in the relevant age, sex and level of education group who are at-risk-of-poverty over the total population in that breakdown (i.e. age, sex and level of education group). The weight variable used is the Personal Cross Sectional Weight (PB040).

$$ARPT_{at_age/sex/ISCED97} = \frac{\forall i_EQ_INC20 < ARPTXX_at_age/sex/ISCED97}{\sum_{\forall i_at_age/sex/ISCED}} \cdot 100$$

At-risk-of poverty thresholds (ARPTXX) can be any of the following: ARPT40, ARPT50, ARPT60, ARPT70, ARPTM40, ARPTM50, ARPTM60.

Methodological issues:

- ISCED refers to the International Standard Classification of Education, developed by UNESCO. The version of the classification that is applied for this indicator follows the 1997 version of ISCED.
- In face of the diversity of national education systems (with regard to curricula, compulsory schooling ages, equivalences between qualifications-and other elements) one should be careful in making cross-country comparisons.
- When determining the highest level, both general and vocational education/training have been taken into consideration.
- Persons who have not completed their studies have been coded according to the highest level they have completed.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: From 18 to 64 years/18 or over/65 years or over
- Education Level (ISCED97): Pre-primary, primary and lower secondary education (levels 0 2)/upper secondary and post-secondary non-tertiary education (levels 3 and 4)/ first and second stage of tertiary education (levels 5 and 6)

Reference period: Survey year for Sex and Education level. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI07.sas

4.2.1.7 At-risk-of-poverty rate by poverty threshold and tenure status



Dataset: At-risk-of-poverty rate by poverty threshold and tenure status **Dissemination tree code:** <u>ilc_li08</u> **Data source:** EU-SILC

Description: The percentage of persons in the total population and in the relevant age, sex and tenure status breakdowns who are at-risk-of-poverty, i.e. with an equivalised disposable income below the 'at-risk-of poverty thresholds':

- 40% of the national median equivalised disposable income (ARPT40)
- 50% of the national median equivalised disposable income (ARPT50)
- 60% of the national median equivalised disposable income (ARPT60)
- 70% of the national median equivalised disposable income (ARPT70)
- 40% of the national mean equivalised disposable income (ARPTM40)
- 50% of the national mean equivalised disposable income (ARPTM50)
- 60% of the national mean equivalised disposable income (ARPTM60).

Key indicator(s) included in the dataset: People at-risk-of-poverty after social transfers (EUROPE 2020), At-risk-of-poverty rate by tenure status (OMC), At-risk-of poverty rate (60% of median income) + value of threshold (in PPP) (JAF)

Policy relevance:

Whilst SILC household total disposable income is considered to be the best basis for poverty analysis it is acknowledged to be an imperfect measure of welfare. An important issue for welfare comparison, between households and between countries, is the income generated from owner-occupied housing and housing beneath market rents (imputed rent). Household total disposable income takes no account of imputed rent. Furthermore although people more vulnerable to poverty are not exclusively housed in the social rented sector or in council housing it is resonable a link between poverty and tenure status.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income, tenure status, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the Risk of poverty threshold (ARPTXX).

(Accommodation) tenure status is defined a) owner (or occupied rent-free) and b) tenant at prevailing market rent or at reduced rate (Tenure status (TENSTA)). The variables used are HH020/HH021 in combination with HY100G/HY100N for distinguishing between owners with and without mortgage.

Other concepts: Age

Calculation method: At-risk-of-poverty rate (ARPT) broken down by age, sex and tenure status, $(ARPT_{at_age/sex/TENURE})$ is calculated as the percentage of people in each age, sex and tenure status group who are at-risk-of-poverty over the total population in that breakdown (i.e. age, sex, tenure status group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARPT_{at_age/sex/TENURE} = \frac{\forall i_EQ_INC20 < ARPTXX_at_age/sex/TENURE}{\sum_{i_age/sex/TENURE} RB050a_{i}} \cdot 100$$

At-risk-of poverty thresholds (ARPTXX) can be any of the following: ARPT40, ARPT50, ARPT60, ARPT70, ARPTM40, ARPTM50, ARPTM60

Methodological issues:

• The accommodation tenure status is assigned to each household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/less than 16 years/from 16 to 64 years/less than 18 years/from 18 to 64 years/18 years or over/60 years or over/65 years or over/75 years or over
- Tenure Status: Total/owner/tenant

Reference period: Survey year for sex and tenure status. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI08.sas

4.2.1.8 At-risk-of-poverty rate before social transfers (pensions included in social transfers) by poverty threshold, age and sex



Dataset: At-risk-of-poverty rate before social transfers (pensions included in social transfers) by poverty threshold, age and sex **Dissemination tree code:** <u>ilc_li09</u> **Data source:** EU-SILC

Description: The percentage of persons in the total population and in the relevant age and sex breakdowns who are at-risk-of-poverty based on the equivalised disposable income before all <u>social transfers</u> including pensions (EQ_INC23), i.e. with an equivalised disposable income before all social transfers below the 'at-risk-of poverty thresholds' calculated after social transfers:

- 40% of the national median equivalised disposable income after social transfers (ARPT40)
- 50% of the national median equivalised disposable income after social transfers (ARPT50)
- 60% of the national median equivalised disposable income after social transfers (ARPT60)
- 70% of the national median equivalised disposable income after social transfers (ARPT70)
- 40% of the national mean equivalised disposable income after social transfers (ARPTM40)
- 50% of the national mean equivalised disposable income after social transfers (ARPTM50)
- 60% of the national mean equivalised disposable income after social transfers (ARPTM60).

Pensions, such as old-age and survivors' (widows' and widowers') benefits, are counted as income (before social transfers) and not as social transfers.

Key indicator(s) included in the dataset: At-risk-of poverty rate (60% of median income) + value of threshold (in PPP) (JAF)

Policy relevance:

This indicator examines the hypothetical non-existence of social transfers. The difference between the 'before' and 'after' transfer poverty rates provides an indication of the effectiveness of social transfers in reducing poverty rates. It compares the observed risk of poverty with a hypothetical measure of a risk of poverty in absence of all social transfers all things being kept equal.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used:

Social transfers cover the social help given by central, state or local institutional units. They include: old-age (retirement) and survivors' (widows' and widowers') pensions; unemployment benefits; family-related benefits; sickness and invalidity benefits; education-related benefits; housing allowances; social assistance; other benefits.

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) before all social transfers (including pensions) (EQ_INC23) below the Risk of poverty

threshold (ARPTXX).

Other concepts: Age

Calculation method: At-risk-of-poverty rate (ARPT23) broken down by age and sex ($ARPT23_{at_age/sex}$) is calculated as the percentage of people in each age and sex group who are at-risk-of-poverty (based on the equivalised disposable income before all social transfers – including pensions - EQ_INC23) over the total population in that breakdown (i.e. age group and sex). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARPT23_{at_age/sex} = \frac{\sum_{i_EQ_INC23 < ARPTXX_at_age/sex} RB050a_i}{\sum_{\forall i_at_age/sex} RB050a_i} \cdot 100$$

At-risk-of poverty thresholds (ARPTXX) can be any of the following: ARPT40, ARPT50, ARPT60, ARPT70, ARPTM40, ARPTM50, ARPTM60.

Methodological issues:

- The 'at-risk-of-poverty threshold' is the same as the one used to calculate the at-risk-of-poverty rate after transfers.
- The indicator 'poverty rate before social transfers' should only be used in connection with the indicator 'poverty rate (after social transfers)'. On its own it does not have any explanatory value.
- Social transfers are defined as current transfers received during the income reference period, which are intended to relieve them from the financial burden of a number of risks or needs, made through collectively organised schemes or outside such schemes by government units and Non-Profit Institutions Serving Households. In order to be included as a social benefit, the transfer must be (a) compulsory for the group in question and (b) based on a principle of social solidarity.
- Social benefits do not include tax rebates, benefits in kind or benefits paid from schemes into which the recipient has made voluntary payments only, independently of his/her employer or government.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/less than 16 years/from 16 to 64 years/16 years or over/less than 18 years/from 18 to 24 years/from 18 to 64 years/18 years or over/from 25 to 54 years/ from 55 to 64 years/ 65 years or over

Reference period: Survey year for sex. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI09.sas

4.2.1.9 At-risk-of-poverty rate before social transfers (pensions included in social transfers) by household type



Dataset: At-risk-of-poverty rate before social transfers (pensions included in social transfers) by household type

Dissemination tree code: <u>ilc_li09b</u> **Data source:** EU-SILC

Description: The percentage of persons in the total population and in the relevant household type breakdowns who are at-risk-of-poverty based on the equivalised disposable income before all social transfers including pensions (EQ_INC23), i.e. with an equivalised disposable income before all social transfers below the 'at-risk-of poverty threshold' calculated as the 60% of the national median equivalised disposable income after social transfers (ARPT60).

Pensions, such as old-age and survivors' (widows' and widowers') benefits, are counted as income (before social transfers) and not as social transfers.

Key indicator(s) included in the dataset: At-risk-of poverty rate (60% of median income) + value of threshold (in PPP) (JAF)

Policy relevance:

This indicator examines the hypothetical non-existence of social transfers. The difference between the 'before' and 'after' transfer poverty rates provides an indication of the effectiveness of social transfers in reducing poverty rates. It compares the observed risk of poverty with a hypothetical measure of a risk of poverty in absence of all social transfers all things being kept equal.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income or household type. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used:

Social transfers cover the social help given by central, state or local institutional units. They include: old-age (retirement) and survivors' (widows' and widowers') pensions; unemployment benefits; family-related benefits; sickness and invalidity benefits; education-related benefits; housing allowances; social assistance; other benefits.

Persons at-risk-poverty are those with an Equivalised disposable income (EQ_INC) before

all social transfers (including pensions)) (EQ_INC23) below the Risk of poverty threshold (ARPTXX).

Other concepts: Household type (HHTYP)

Calculation method: At-risk-of-poverty rate (ARPT23) broken down by household type ($ARPT23_{at_HHTYP}$) is calculated as the percentage of people in each household type group who are at-risk-of-poverty (based on the equivalised disposable income before all social transfers – including pensions - EQ_INC23) over the total population in that breakdown (i.e. household type). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

 $ARPT23_{at_HHTYP} = \frac{\sum_{i=EQ_INC23<ARPT60_at_HHTYP}}{\sum_{i=at_HHTYP}} \cdot 100$

Methodological issues:

- The 'at-risk-of-poverty threshold' is the same as the one used to calculate the at-risk-of-poverty rate after transfers.
- The indicator 'poverty rate before social transfers' should only be used in connection with the indicator 'poverty rate (after social transfers)'. On its own it does not have any explanatory value.
- Social transfers are defined as current transfers received during the income reference period, which are intended to relieve them from the financial burden of a number of risks or needs, made through collectively organised schemes or outside such schemes by government units and Non-Profit Institutions Serving Households. In order to be included as a social benefit, the transfer must be (a) compulsory for the group in question and (b) based on a principle of social solidarity.
- Social benefits do not include tax rebates, benefits in kind or benefits paid from schemes into which the recipient has made voluntary payments only, independently of his/her employer or government.
- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Household Type (HHTYP): Total/Single person/One adult younger than 65

years/one adult 65 years or over/ Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years / Two adults, at least one aged 65 years or over/ Two adults with one dependent child/Two adults with two dependent children/ Two adults with three or more dependent children/ Two or more adults without dependent children/Two or more adults with dependent children/ Three or more adults with dependent children/ Household without dependent children/ Household with dependent children

Reference period: Household type is the household type of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI09b.sas (VAR_HT_NADU_NDCH.sas, VAR_HT1.sas)

4.2.1.10 At-risk-of-poverty rate before social transfers (pensions excluded in social transfers) by poverty threshold, age and sex

eurostat

Dataset: At-risk-of-poverty rate before social transfers (pensions excluded in social transfers) by poverty threshold, age and sex

Dissemination tree code: <u>ilc_li10</u> **Data source**: EU-SILC

Description: The percentage of persons in the total population and in the relevant age and sex breakdowns who are at-risk-of-poverty based on the equivalised disposable income before all social transfers excluding pensions) (EQ_INC22), i.e. with an equivalised disposable income before all social transfers below the 'at-risk-of poverty thresholds' calculated after social transfers:

- 40% of the national median equivalised disposable income after social transfers (ARPT40)
- 50% of the national median equivalised disposable income after social transfers (ARPT50)
- 60% of the national median equivalised disposable income after social transfers (ARPT60)
- 70% of the national median equivalised disposable income after social transfers (ARPT70)
- 40% of the national mean equivalised disposable income after social transfers (ARPTM40)
- 50% of the national mean equivalised disposable income after social transfers (ARPTM50)
- 60% of the national mean equivalised disposable income after social transfers

(ARPTM60).

Pensions, such as old-age and survivors' (widows' and widowers') benefits, are counted as income (before social transfers) and not as social transfers.

Key indicator(s) included in the dataset: At-risk-of-poverty rate before social transfers (other than pensions) (OMC indicator – Overaching indicator), At-risk-of-poverty rate before social transfers except pensions (OMC indicator – Indicators of the social inclusion strand), At-risk-of poverty rate (60% of median income) + value of threshold (in PPP) (JAF)

Policy relevance:

The difference between the 'before' and 'after' transfer poverty rates provides an indication of the effectiveness of social transfers in reducing poverty rates. It compares the observed risk of poverty with a hypothetical measure of a risk of poverty in absence of all social transfers (other than pensions) all things being kept equal.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income, gender or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used:

Social transfers cover the social help given by central, state or local institutional units. They include: old-age (retirement) and survivors' (widows' and widowers') pensions; unemployment benefits; family-related benefits; sickness and invalidity benefits; education-related benefits; housing allowances; social assistance; other benefits

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) before all social transfers (excluding pensions)) (EQ_INC22) below the Risk of poverty threshold (ARPT).

Other concepts: Age

Calculation method: At-risk-of-poverty rate (ARPT22) broken down by age and sex ($ARPT22_{at_age/sex}$) is calculated as the percentage of people in each age group and sex who are at-risk-of-poverty (based on the equivalised disposable income before all social transfers – excluding pensions - EQ_INC22) over the total population in that breakdown (i.e. age group and sex). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARPT22_{at_age/sex} = \frac{\sum_{i_EQ_INC22 < ARPTXX_at_age/sex} RB050a_i}{\sum_{\forall i_at_age/sex} RB050a_i} \cdot 100$$

At-risk-of poverty thresholds (ARPTXX) can be any of the following: ARPT40, ARPT50, ARPT60, ARPT70, ARPTM40, ARPTM50, ARPTM60.

Methodological issues:

• The 'at-risk-of-poverty threshold' is the same as the one used to calculate the at-risk-

of-poverty rate after transfers.

- The indicator 'poverty rate before social transfers' should only be used in connection with the indicator 'poverty rate (after social transfers)'. On its own it does not have any explanatory value.
- Social transfers are defined as current transfers received during the income reference period, which are intended to relieve them from the financial burden of a number of risks or needs, made through collectively organised schemes or outside such schemes by government units and Non-Profit Institutions Serving Households. In order to be included as a social benefit, the transfer must be (a) compulsory for the group in question and (b) based on a principle of social solidarity.
- Social benefits do not include tax rebates, benefits in kind or benefits paid from schemes into which the recipient has made voluntary payments only, independently of his/her employer or government.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/less than 16 years/from 16 to 64 years/16 years or over/less than 18 years/from 18 to 64 years/from 18 to 64 years/18 years or over/from 25 to 54 years/ from 55 to 64 years/ 65 years or over

Reference period: Survey year for sex. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI10.sas

4.2.1.11 At-risk-of-poverty rate before social transfers (pensions excluded in social transfers) by household type



Dataset: At-risk-of-poverty rate before social transfers (pensions excluded in social transfers) by household type **Dissemination tree code:** <u>ilc_li10b</u> **Data source**: EU-SILC

Description: The percentage of persons in the total population and in the relevant household type breakdowns who are at-risk-of-poverty based on the equivalised disposable income before all <u>social transfers</u> excluding pensions (EQ_INC22), i.e. with an equivalised disposable income before all social transfers below the 'at-risk-of poverty threshold' calculated as the 60% of the national median equivalised disposable income after social transfers (ARPT60).

Pensions, such as old-age and survivors' (widows' and widowers') benefits, are counted as income (before social transfers) and not as social transfers.

Key indicator(s) included in the dataset: At-risk-of-poverty rate before social transfers (other than pensions) (OMC indicator – Overreaching indicator), At-risk-of-poverty rate before social transfers except pensions (OMC indicator – Indicators of the social inclusion strand), At-risk-of poverty rate (60% of median income) + value of threshold (in PPP) (JAF)

Policy relevance:

The difference between the 'before' and 'after' transfer poverty rates provides an indication of the effectiveness of social transfers in reducing poverty rates. It compares the observed risk of poverty with a hypothetical measure of a risk of poverty in absence of all social transfers (other than pensions) all things being kept equal.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used:

Social transfers cover the social help given by central, state or local institutional units. They include: old-age (retirement) and survivors' (widows' and widowers') pensions; unemployment benefits; family-related benefits; sickness and invalidity benefits; education-related benefits; housing allowances; social assistance; other benefits.

Persons at-risk-poverty are those with an <u>Equivalised disposable Income (EQ_INC)</u> before all social transfers (excluding pensions) (EQ_INC22) below the <u>Risk of poverty</u> threshold (ARPT).

Other concepts: Household type (HHTYP)

Calculation method: At-risk-of-poverty rate (ARPT22) broken down by household type ($ARPT22_{at_HHTYP}$) is calculated as the percentage of people in each household type group who are at-risk-of-poverty (based on the equivalised disposable income before all social transfers – excluding pensions - EQ_INC22) over the total population in that breakdown (i.e. household type). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

 $ARPT22_{at_HHTYP} = \frac{\forall i_EQ_INC22 < ARPT60_at_HHTYP}{\sum_{\forall i_eq_INC22} RB050a_i} \cdot 100$
Methodological issues:

- The 'at-risk-of-poverty threshold' is the same as the one used to calculate the at-risk-of-poverty rate after transfers.
- The indicator 'poverty rate before social transfers' should only be used in connection with the indicator 'poverty rate (after social transfers)'. On its own it does not have any explanatory value.
- Social transfers are defined as current transfers received during the income reference period, which are intended to relieve them from the financial burden of a number of risks or needs, made through collectively organised schemes or outside such schemes by government units and Non-Profit Institutions Serving Households. In order to be included as a social benefit, the transfer must be (a) compulsory for the group in question and (b) based on a principle of social solidarity.
- Social benefits do not include tax rebates, benefits in kind or benefits paid from schemes into which the recipient has made voluntary payments only, independently of his/her employer or government.
- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Household Type (HHTYP): Total/Single person/One adult younger than 65 years/one adult 65 years or over/ Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years / Two adults, at least one aged 65 years or over/Two adults with one dependent child/Two adults with two dependent children/ Two adults with three or more dependent children/ Two or more adults without dependent children/Two or more adults with dependent children/ Three or more adults with dependent children/ Household without dependent children/ Household with dependent children/

Reference period: Household type is the household type of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI10b.sas (VAR_HT_NADU_NDCH.sas, VAR_HT1.sas)

4.2.1.12 Relative at-risk-of-poverty gap by poverty threshold

eurostat

Dataset: Relative at-risk-of-poverty gap by poverty threshold **Dissemination tree code:** ilc_li11 **Data source:** EU-SILC

Description: The poverty gap is measured as the difference between the median equivalized total net income of persons below the at-risk-of-poverty threshold and the threshold itself, expressed as a percentage of the threshold, broken down age and sex breakdowns.

Relative poverty gaps has been calculated for the following thresholds:

- 40% of the national median equivalised disposable income (ARPT40)
- 50% of the national median equivalised disposable income (ARPT50)
- 60% of the national median equivalised disposable income (ARPT60)
- 70% of the national median equivalised disposable income (ARPT70)
- 40% of the national mean equivalised disposable income (ARPTM40)
- 50% of the national mean equivalised disposable income (ARPTM50)
- 60% of the national mean equivalised disposable income (ARPTM60).

Key indicator(s) included in the dataset: Relative median at-risk-of-poverty gap (OMC)

Policy relevance: The relative median poverty risk gap refers to the intensity of poverty risk. It measures the depth of poverty for a 'typical' poor person within a Member State. Whereas the poverty risk is concerned with the share of the population that has an income below a specified poverty threshold, the poverty gap measures how strongly these incomes fall short of the poverty line, or the 'depth of poverty'.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the Risk of poverty threshold (ARPTXX).

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Age

Calculation method: Relative at-risk-of-poverty gap rate (RAROPG) broken down age and sex, ($RAROPG_{at_age/sex}$) is calculated as the difference between the median equivalised

disposable income of people below the at-risk-of-poverty threshold $(EQ_INC20_{median/at_poor_age/sex})$ and the at-risk-of-poverty threshold (ARPTXX), expressed as a percentage of the at-risk-of-poverty threshold, in each age group and sex.

$$RAROPG_{at_age/sex} = \frac{ARPTXX_{age/sex} - EQ_INC20_{median/at_poor_age/sex}}{ARPTXX_{age/sex}} \cdot 100$$

At-risk-of poverty thresholds (ARPTXX) can be any of the following: ARPT40, ARPT50, ARPT60, ARPT70, ARPTM40, ARPTM50, ARPTM60.

Methodological issues:

- The poverty gap represents the poverty gap of the 'median person' who is at risk of poverty. However, it does not convey any information on the distribution of the poverty gap among the population at-risk-of-poverty.
- The median poverty gap is preferred to the total poverty gap or mean poverty gap, in as far as the latter are more sensitive to extremely low and negative incomes, (which may be due to income measurement errors).
- The poverty gap is expressed as a percentage of the at-risk of poverty threshold in order to make data comparable across countries.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/less than 6 years/from 6 to 11 years/from 12 to 17 years/less than 16 years/from 16 to 64 years/16 years or over/less than 18 years/from 18 to 64 years/18 years or over/65 years or over/75 years or over

Reference period: Survey year for Sex. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI11.sas

4.2.1.13 Persistent at risk of poverty rate by sex and age



Dataset: Persistent at-risk-of-poverty rate by sex and age **Dissemination tree code:** <u>ilc_li21</u> **Data source:** EU-SILC **Description:** The percentage of persons in the total population and in the relevant age and sex breakdowns whose equivalised disposable income was below the 'at-.risk-of-poverty threshold' (taken from cross-sectional calculations – external threshold) for the current year and at least 2 out of the preceding 3 years.

People at-risk-of-poverty have been defined using the following thresholds:

- 40% of the national median equivalised disposable income after social transfers (ARPT40)
- 50% of the national median equivalised disposable income after social transfers (ARPT50)
- 60% of the national median equivalised disposable income after social transfers (ARPT60)
- 70% of the national median equivalised disposable income after social transfers (ARPT70)
- 40% of the national mean equivalised disposable income after social transfers (ARPTM40)
- 50% of the national mean equivalised disposable income after social transfers (ARPTM50)
- 60% of the national mean equivalised disposable income after social transfers (ARPTM60).

Key indicator(s) included in the dataset: Persistent at-risk-of-poverty rate (OMC)

Policy relevance: This indicator complements the 'standard' poverty risk rate. Income poverty risk at a given point in time may not necessarily imply low living standards in the long term, for example if the persons at risk have access to savings, to credit, to private insurance, tax credits, to financial assistance from friends and relatives. The persistent poverty risk rate assesses income over four years, thereby providing an indication of income situations over the longer term.

Statistical population: The population consists of all the persons in the age-sex categories, which have been living for four years in private households and which have been in the panel for all the four relevant years. 'Not current household members', i.e. persons for which RB110>4, are excluded. 'Persons with missing equivalised disposable income for any relevant wave or missing age or missing sex information are excluded.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) before all social transfers (including pensions) (EQ_INC23) below the Risk of poverty threshold (ARPTXX)

Other concepts: Age

Calculation method:

Let L be the subset of the total population consisting of persons that have been in the panel for the last four years and for whom EQ_INC is not missing for any of the years.

Let P_r ($P_r \subset L$) be the subset of individuals who are at-risk-of poverty in the current year (T), i.e. $\forall i \in L$ for which $EQ_{INC20}^T < ARPTXX^T$

Let $P_{T-1} (P_{T-1} \subset L)$ be the subset of individuals who were at-risk-of-poverty in T-1, i.e. $\forall i \in L$ for which $EQ_{INC20^{T-1}} < ARPTXX^{T-1}$

Let P_{T-2} ($P_{T-2} \subset L$) be the subset of individuals who were at-risk-of-poverty in T-2, i.e. $\forall i \in L$ for which $EQ_{INC20^{T-2}} < ARPTXX^{T-2}$

Let $P_{T-3} (P_{T-3} \subset L)$ be the subset of individuals who were at-risk-of-poverty in T-3, i.e. $\forall i \in L$ for which $EQ_{-INC20_{i}}^{T-3} < ARPTXX^{T-3}$

Note: i denotes each individual in the dataset. All information for each individual i and all years in the panel has been stored in one line.

Let L^* ($L^* \subset L$) be the subset who are 'persistent at-risk-of-poverty', i.e. those being at-risk-of-poverty in the current year (*T*) and at least 2 out of the preceding 3 years: $L^* = (P_T \bigcap P_{T-1} \bigcap P_{T-2} \bigcap P_{T-3}) \bigcup (P_T \bigcap P_{T-1} \bigcap P_{T-2}) \bigcup (P_T \bigcap P_{T-1} \bigcap P_{T-3}) \bigcup (P_T \bigcap P_{T-2} \bigcap P_{T-3})$

Persistent at-risk-of-poverty rate (L_ARPT) broken down by age and sex ($L_ARPT_{at_agr/gender}$) is calculated as the percentage of people in each age group and sex whose equivalised disposable income was below the 'at-.risk-of-poverty threshold' (taken from cross-sectional calculations – external threshold) for the current year and at least 2 out of the preceding 3 years over the total population in that breakdown (i.e. age group and sex). The weight variable used is an estimation of the Longitudinal weight estimate – Four year duration (RB064e).

$$L_ARPT_{at_age/sex} = \frac{\sum_{de _age/sex} RB064e_i}{\sum_{de _age/sex} RB064e_i} \cdot 100$$

At-risk-of poverty thresholds (ARPTXX) can be any of the following: ARPT40, ARPT50, ARPT60, ARPT70, ARPTM40, ARPTM50, ARPTM60.

Methodological issues:

- In any longitudinal panel survey there can be problems of attrition, with respondents ceasing to participate for a variety of reasons. For the at-persistent-risk-of-poverty rate, an important question is whether there are higher drop-out rates for low income households than for other households.
- The indicator specifies 'at least two out of three previous years' to allow for fluctuations around the poverty line.
- Age breakdowns have changed over the years. Until 2004 age categories were: Total/less than 16 years/ from 16 to 24 years/ from 16 to 64 years/ 16 years and over/ 65 years or over. From 2007 onwards age categories changed to: Total/ less than 18 years/from 18 to 24 years/from 18 to 64 years/18 years or over/from 25 to 49

years/from 50 to 64 years/65 years or over

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (Iceland, Norway, Turkey, EU Member states excluding Czech Republic, Romania, Sweden)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/less than 16 years/from 16 to 24 years/from 16 to 64 years/16 years or over/less than 18 years/from 18 to 24 years/from 18 to 64 years/18 years or over/from 25 to 49 years/from 50 to 64 years/65 years or over

Reference period: Survey year for sex. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: L_li21.sas (VAR_ARPTXXip_RB064e.sas)

4.2.1.14 At-risk-of-poverty rate anchored at a fixed point in time (2005) by sex and age



Dataset: At-risk-of-poverty rate anchored at a fixed moment in time (2005) by age and sex **Dissemination tree code:** <u>ilc_li22</u> **Data source:** EU-SILC

Description: For a given year *T* the indicator is defined as the percentage of persons in the total population and in the relevant age and sex breakdowns who are <u>at-risk-of-poverty</u> anchored at a fixed moment in time (2005) (at-risk-of-poverty threshold calculated in the standard way for the base year – currently 2005) and adjusted for inflation ARPT60₂₀₀₅.

Key indicator(s) included in the dataset: At-risk-of-poverty rate anchored at a fixed moment in time (2005) (OMC)

Policy relevance: This anchored poverty risk rate refers to improved standards of living resulting from economic growth; thus its focus is on whether general improvements in living standards are successful in lifting people out of poverty (or at least increasing their real income). A decrease of the anchored poverty risk over time would indicate that the living standards for low-income groups are improving compared to the base year (2005). If a decrease of the anchored rate coincides with stability or increase of the unanchored rate, this could suggest that living standards for low income groups are improving more slowly than for the higher-income groups.

Statistical population: The population consists of all the persons that have been living in private households for the current year T for the calculation of the 'at-risk-of-poverty rate

anchored at a fixed moment in time (2005)'. For the calculation of the 'at-risk-of-poverty threshold' in the base year (2005) the population consists of the persons that lived in private households during the base year (2005). People with missing values for equivalised disposable income, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the Risk of poverty threshold (ARPTXX).

Other concepts: Age

Calculation method: At-risk-of-poverty rate (ARPT) anchored at a fixed time (2005) broken down by age and sex, $(ARPT_{(2005)_{at_age/sex}})$ is calculated as the percentage of people in each age group and sex who are at-risk-of-poverty based on the at-risk-of-poverty thresholds of 2005 adjusted for inflation $(ARPT60_{(2005)(T)})$ over the total population in that breakdown (i.e. age group and sex). More specifically people at-risk-of poverty anchored at 2005 are those with an equivalised disposable income (for a given year *T*) below the at-risk-of-poverty threshold calculated in 2005 adjusted for inflation (i.e. EQ_INC20<ARPT60_{2005T}) where ARPT60_{2005T} is the 2005 at-risk-of-poverty threshold adjusted for inflation from 2005 to T). Adjustment is based on the annual Harmonised Indices of Consumer Prices (HICPs).

$$ARPT60_{(2005)(T)} = ARPT60_{(2005)} \times \frac{idx_{(2005)}}{100}$$

where $idx_{2005}/100$ is the official inflation rate between 2005 and T and ARPT₂₀₀₅ denotes the at-risk of poverty threshold in 2005.

The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARPT_{(2005)_{at_age/sex}} = \frac{\forall i_EQ_INC20 < ARPT 60_{(2005)(T)_at_age/sex}}{\sum_{\forall i_at_age/sex} RB050a_i} \cdot 100$$

Methodological issues:

- The poverty threshold of the base year (2005) is adjusted for inflation. This operation results in the 'real' value of the threshold base year, i.e. adjusted for price increases in subsequent years. The remaining difference between the 'inflation adjusted' threshold of the base year and the threshold of the current year reflects evolutions in living standards.
- The base or reference year (currently 2005) is meant to change in regular intervals.
- The inflation rate to be applied should correspond to the survey years both for the base year (2005) and T.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/Countries (Iceland, Norway, EU Member states excluding Bulgaria, Romania)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/less than 18 years/from 18 to 64 years/65 years or over

Reference period: Survey year for demographic variables (sex). Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI22.sas

4.2.1.15 At-risk-of-poverty rate anchored at a point in time (2008) by sex and age

eurostat

Dataset: At-risk-of-poverty rate anchored at a fixed moment in time (2008) by age and sex **Dissemination tree code:** <u>ilc_li22b</u>

Data source: EU-SILC

Description: For a given year *T* the indicator is defined as the percentage of persons in the total population and in the relevant age and sex breakdowns who are <u>at-risk-of-poverty</u> anchored at a fixed moment in time (2008) (at-risk-of-poverty threshold calculated in the standard way for the base year – currently 2008) and adjusted for inflation ARPT60₂₀₀₈.

Key indicator(s) included in the dataset: At-risk-of-poverty rate anchored at a fixed moment in time (2008) (OMC)

Policy relevance: This anchored poverty risk rate refers to improved standards of living resulting from economic growth; thus its focus is on whether general improvements in living standards are successful in lifting people out of poverty (or at least increasing their real income). A decrease of the anchored poverty risk over time would indicate that the living standards for low-income groups are improving compared to the base year (2008). If a decrease of the anchored rate coincides with stability or increase of the unanchored rate, this could suggest that living standards for low income groups are improving more slowly than for the higher-income groups. This indicator keeps the poverty threshold fixed in real terms over a longer period of time and therefore controls the effects of a moving poverty threshold.

Statistical population: The population consists of all the persons that have been living in private households for the current year T for the calculation of the 'at-risk-of-poverty rate anchored at a fixed moment in time (2008)'. For the calculation of the 'at-risk-of-poverty threshold' in the base year (2008) the population consists of the persons that lived in private

households during the base year (2008). People with missing values for equivalised disposable income, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an <u>Equivalised disposable Income (EQ_INC)</u> (after social transfers) (EQ_INC20) below the <u>Risk of poverty threshold (ARPTXX)</u>.

Other concepts: Equivalised disposable Income (EQ_INC), Age

Calculation method: At-risk-of-poverty rate (ARPT) anchored at a fixed time (2008) broken down by age and sex, ($ARPT_{(2008)_{at_age/sex}}$) is calculated as the percentage of people in each age group and sex who are at-risk-of-poverty based on the at-risk-of-poverty thresholds of 2008 adjusted for ($ARPT60_{(2008)(T)}$) over the total population in that breakdown (i.e. age group and sex). More specifically people at-risk-of poverty anchored at 2008 are those with an equivalised disposable income (for a given year *T*) below the at-risk-of-poverty threshold calculated in 2008 adjusted for inflation (i.e. EQ_INC20<ARPT60_{2008T} where ARPT60_{2008T} is the 2008 at-risk-of-poverty threshold adjusted for inflation from 2008 to T). Adjustment is based on the annual harmonised indices of consumer prices (HICPs).

$$ARPT60_{(2008)(T)} = ARPT60_{(2008)} \times \frac{idx_{(2008)}}{100}$$

where $idx_{2008}/100$ is the official inflation rate between 2008 and T and ARPT₂₀₀₈ denotes the at-risk of poverty threshold in 2008.

The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARPT_{(2008)_{at_age/sex}} = \frac{\forall i_EQ_INC20 < ARPT 60_{(2008)(T)_at_age/sex}}{\sum_{\forall i_at_age/sex} RB050a_{i}} \cdot 100$$

Methodological issues:

- The poverty threshold of the base year (2008) is adjusted for inflation. This operation results in the 'real' value of the threshold base year, i.e. adjusted for price increases in subsequent years. The remaining difference between the 'inflation adjusted' threshold of the base year and the threshold of the current year reflects evolutions in living standards.
- The base or reference year (currently 2008) is meant to change in regular intervals.
- The inflation rate to be applied should correspond to the survey years both for the base year (2008) and T.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

• Geographical Entity (GEO): EU/Euro area/Countries (Iceland, Norway, EU Member

- states, Iceland, Norway, Switzerland)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/less than 18 years/from 18 to 64 years/65 years or over

Reference period: Survey year for demographic variables (sex). Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI22b.sas

4.2.1.16 Persistent at risk of poverty rate by household type



Dataset: Persistent at-risk-of-poverty rate by household type **Dissemination tree code:** <u>ilc_li23</u> **Data source:** EU-SILC

Description: The percentage of persons in the total population and in the relevant household type breakdowns whose equivalised disposable income was below the 'at-.risk-of-poverty threshold' (taken from cross-sectional calculations – external threshold) for the current year and at least 2 out of the preceding 3 years.

People at-risk-of-poverty have been defined using the following thresholds:

- 40% of the national median equivalised disposable income after social transfers (ARPT40)
- 50% of the national median equivalised disposable income after social transfers (ARPT50)
- 60% of the national median equivalised disposable income after social transfers (ARPT60)
- 70% of the national median equivalised disposable income after social transfers (ARPT70)
- 40% of the national mean equivalised disposable income after social transfers (ARPTM40)
- 50% of the national mean equivalised disposable income after social transfers (ARPTM50)
- 60% of the national mean equivalised disposable income after social transfers (ARPTM60)

Key indicator(s) included in the dataset: Persistent at-risk-of-poverty rate (OMC)

Policy relevance:

This indicator complements the 'standard' poverty risk rate. Income poverty risk at a given point in time may not necessarily imply low living standards in the long term, for example if the persons at risk have access to savings, to credit, to private insurance, tax credits, to financial assistance from friends and relatives. The persistent poverty risk rate assesses income over four years, thereby providing an indication of income situations over the longer term. It is important to analyse the impact of these benefits especially in what concerns specific household types, such as single parent households or households with older people.

Statistical population: The population consists of all the persons in the household type categories, which have been living for four years in private households and which have been in the panel for all the four relevant years. 'Not current household members', i.e. persons for which RB110>4, are excluded. 'Persons with missing equivalised disposable income for any relevant wave or missing household type information are excluded.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an <u>Equivalised disposable Income (EQ_INC)</u> before all social transfers (including pensions) (EQ_INC23) below the <u>Risk of poverty threshold</u> (<u>ARPTXX</u>).

Other concepts: <u>Household Type (HHTYP)</u>

Calculation method:

Let L be the subset of the total population consisting of persons that have been in the panel for the last four years and for whom EQ_INC is not missing for any of the years.

Let P_T ($P_T \subset L$) be the subset of individuals who are at-risk-of poverty in the current year (T), i.e. $\forall i \in L$ for which $EQ_INC20^T < ARPTXX^T$

Let P_{T-1} ($P_{T-1} \subset L$) be the subset of individuals who were at-risk-of-poverty in T-1, i.e. $\forall i \in L$ for which $EQ_{INC20^{T-1}} < ARPTXX^{T-1}$

Let $P_{T-2} (P_{T-2} \subset L)$ be the subset of individuals who were at-risk-of-poverty in T-2, i.e. $\forall i \in L$ for which $EQ_{INC20^{T-2}} < ARPTXX^{T-2}$

Let P_{T-3} ($P_{T-3} \subset L$) be the subset of individuals who were at-risk-of-poverty in T-3, i.e. $\forall i \in L$ for which $EQ_{INC20^{T-3}} < ARPTXX^{T-3}$

Note: i denotes each individual in the dataset. All information for each individual i and all years in the panel has been stored in one line.

Let L^* ($L \subset L$) be the subset who are 'persistent at-risk-of-poverty', i.e. those being at-risk-of-poverty in the current year (*T*) and at least 2 out of the preceding 3 years:

 $L^* = (P_T \bigcap P_{T-1} \bigcap P_{T-2} \bigcap P_{T-3}) \bigcup (P_T \bigcap P_{T-1} \bigcap P_{T-2}) \bigcup (P_T \bigcap P_{T-1} \bigcap P_{T-3}) \bigcup (P_T \bigcap P_{T-2} \bigcap P_{T-3}) \bigcup (P_T \bigcap P$

Persistent at-risk-of-poverty rate (L_ARPT) broken down by household type group ($L_ARPT_{at_HHTYP}$) is calculated as the percentage of people in each household type group whose equivalised disposable income was below the 'at-.risk-of-poverty threshold' (taken from cross-sectional calculations – external threshold) for the current year and at least 2 out of the preceding 3 years over the total population in that breakdown (i.e. household type). The weight variable used is an estimation of the Longitudinal weight estimate- Four year

duration (RB064e).

$$L_ARPT_{at_HHTYP} = \frac{\sum_{\forall i \in L^* _at_HHTYP} RB064e_i}{\sum_{\forall i \in L} RB064e_i} \cdot 100$$

At-risk-of poverty thresholds (ARPTXX) can be any of the following: ARPT40, ARPT50, ARPT60, ARPT70, ARPTM40, ARPTM50, ARPTM60.

Methodological issues:

- In any longitudinal panel survey there can be problems of attrition, with respondents ceasing to participate for a variety of reasons. For the at-persistent-risk-of-poverty rate, an important question is whether there are higher drop-out rates for low income households than for other households.
- The indicator specifies 'at least two out of three previous years' to allow for fluctuations around the poverty line.
- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, excluding Switzerland)
- Time
- Household type (HHTYP): single person/Single person with dependent children/Two or more adults without dependent children/Two or more adults with dependent children/Households with dependen

Reference period: Household type is the household type of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: L_li23.sas (VAR_ARPTXXip_RB064e.sas, VAR_HT_NADU_NDCH.sas, VAR_HT1.sas)

4.2.1.17 Persistent at risk of poverty rate by educational level



Dataset: Persistent at-risk-of-poverty rate by educational level **Dissemination tree code:** <u>ilc_li24</u> **Data source:** EU-SILC

Description: Persons as percentage of persons in the total population and in the relevant educational level breakdowns whose equivalised disposable income was below the 'at-.risk-of-poverty threshold' (taken from cross-sectional calculations – external threshold) for the current year and at least 2 out of the preceding 3 years.

People at-risk-of-poverty have been defined using the following thresholds:

- 40% of the national median equivalised disposable income after social transfers (ARPT40)
- 50% of the national median equivalised disposable income after social transfers (ARPT50)
- 60% of the national median equivalised disposable income after social transfers (ARPT60)
- 70% of the national median equivalised disposable income after social transfers (ARPT70)
- 40% of the national mean equivalised disposable income after social transfers (ARPTM40)
- 50% of the national mean equivalised disposable income after social transfers (ARPTM50)
- 60% of the national mean equivalised disposable income after social transfers (ARPTM60)

Key indicator(s) included in the dataset: Persistent at-risk-of-poverty rate (OMC)

Policy relevance: This indicator complements the 'standard' poverty risk rate. Income poverty risk at a given point in time may not necessarily imply low living standards in the long term, for example if the persons at risk have access to savings, to credit, to private insurance, tax credits, to financial assistance from friends and relatives. The persistent poverty risk rate assesses income over four years, thereby providing an indication of income situations over the longer term.

Statistical population: The population consists of all the persons in the educational level categories, which have been living for four years in private households and which have been in the panel for all the four relevant years. 'Not current household members', i.e. persons for which RB110>4, are excluded. 'Persons with missing equivalised disposable income for any relevant wave or missing sex or educational level information are excluded.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an <u>Equivalised disposable Income (EQ_INC)</u> before all social transfers (including pensions) (EQ_INC23) below the <u>Risk of poverty threshold</u> (<u>ARPTXX</u>)

Educational level (attainment) of a person is the highest level of an educational programme the person has successfully completed and the study field of this programme. The educational classification to be used is the International Standard Classification of Education (ISCED 1997) coded according to the seven ISCED-97 categories.

Calculation method:

Let *L* be the subset of the total population consisting of persons that have been in the panel for the last four years and for whom EQ_INC is not missing for any of the years.

Let $P_{T-1}(P_{T-1} \subset L)$ be the subset of individuals who were at-risk-of-poverty in T-1, i.e. $\forall i \in L$ for which $EQ_INC20^{T-1} < ARPTXX^{T-1}$

Let P_{T-2} ($P_{T-2} \subset L$) be the subset of individuals who were at-risk-of-poverty in T-2, i.e. $\forall i \in L$ for which $EQ_{INC20^{T-2}} < ARPTXX^{T-2}$

Let $P_{T-3}(P_{T-3} \subset L)$ be the subset of individuals who were at-risk-of-poverty in T-3, i.e. $\forall i \in L$ for which $EQ_{INC20^{T-3}} < ARPTXX^{T-3}$

Note: i denotes each individual in the dataset. All information for each individual i and all years in the panel has been stored in one line.

Let L^* ($L \subset L$) be the subset who are 'persistent at-risk-of-poverty', i.e. those being at-risk-of-poverty in the current year (*T*) and at least 2 out of the preceding 3 years:

$$L^* = (P_T \bigcap P_{T-1} \bigcap P_{T-2} \bigcap P_{T-3}) \bigcup (P_T \bigcap P_{T-1} \bigcap P_{T-2}) \bigcup (P_T \bigcap P_{T-1} \bigcap P_{T-3}) \bigcup (P_T \bigcap P_{T-2} \bigcap P_{T-3}) \bigcup (P_T \bigcap P$$

Persistent at-risk-of-poverty rate (L_ARPT) broken down by educational level ($L_ARPT_{at_ISCED97/sex}$) is calculated as the percentage of people in each educational level group and gender whose equivalised disposable income was below the 'at-.risk-of-poverty threshold' (taken from cross-sectional calculations – external threshold) for the current year and at least 2 out of the preceding 3 years over the total population in that breakdown (i.e. education level and sex). The weight variable used is an estimation of the Longitudinal weight estimate – Four year duration (RB064e).

$$L_ARPT_{at_ISCED97/sex} = \frac{\sum_{i \in L^{*}_at_ISCED97/sex}}{\sum_{\forall i \in L_at_ISCED97/sex}} \cdot 100$$

At-risk-of poverty thresholds (ARPTXX) can be any of the following: ARPT40, ARPT50, ARPT60, ARPT70, ARPTM40, ARPTM50, ARPTM60.

Methodological issues:

- In any longitudinal panel survey there can be problems of attrition, with respondents ceasing to participate for a variety of reasons. For the at-persistent-risk-of-poverty rate, an important question is whether there are higher drop-out rates for low income households than for other households.
- The indicator specifies 'at least two out of three previous years' to allow for fluctuations around the poverty line.

- ISCED refers to the International Standard Classification of Education, developed by UNESCO. The version of the classification that is applied for this indicator follows the 1997 version of ISCED and it includes a) low education corresponds to ISCED levels 0-2 (pre-primary, primary and lower secondary education), b) medium education corresponds to ISCED levels 3 and 4 (upper secondary and post-secondary non-tertiary education) and c) high education corresponds to ISCED levels 5 and 6 (tertiary education).
- In face of the diversity of national education systems (with regard to curricula, compulsory schooling ages, equivalences between qualifications and other elements) one should be careful in making cross-country comparisons.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway excluding Switzerland)
- Time
- Sex (SEX): Total/Male/Female
- Educational Level (ISCED97): Pre-primary, primary and lower secondary education (levels 0-2)/ Upper secondary and post-secondary non-tertiary education (levels 3 and 4)/ First and second stage of tertiary education (levels 5 and 6)

Reference period: Survey year for sex and level of education (ISCED97). Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: L_li24.sas (VAR_ARPTXXip_RB064e.sas)

4.2.1.18 At risk of poverty rate by broad group of citizenship (population aged 18 and over)



Dataset: At risk of poverty rate by broad group of citizenship (population aged 18 and over) **Dissemination tree code:** <u>ilc_li31</u>

Data source: EU-SILC

Description: The percentage of persons in the total population and in the relevant age, sex and citizenship breakdowns who are <u>at-risk-of-poverty</u>.

Key indicator(s) included in the dataset: People at-risk-of-poverty after social transfers (EUROPE 2020), At-risk-of poverty rate (60% of median income) + value of threshold (in PPP) (JAF)

Policy relevance: Non-EU nationals are occasionally exposed to a multiple times higher risk of poverty and social exclusion than the "indigenous" population. Non-nationals, and in particular third-country nationals, may be subject to immigration restrictions on entering and

remaining within a country, as well as limitations on access to the labour market. EU nationals have the right to live in other EU Member States, although there remain some transitional labour market restrictions. The integration of third-country nationals has been identified as a particular policy priority at European level, as well as in many Member States¹⁰.

Statistical population: Population aged 18 years and over living in private households. People with missing values for equivalised disposable income, sex, age or citizenship are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the Risk of poverty threshold (ARPTXX).

Citizenship is defined as the particular legal bond between the individual and his/her State acquired by birth or naturalisation, whether by declaration, choice, option, marriage or other means according to the national legislation. It generally corresponds to the country issuing the passport.

Other concepts: Age, Citizenship group (CITIZEN)

Calculation method: At-risk-of-poverty rate (ARPT) broken down by age, sex and citizenship ($ARPT_{at_age/sex/c_ship}$) is calculated as the percentage of people in each age group, citizenship group (C_SHIP) and sex who are at-risk-of-poverty (EQ_INC20<ARPT60) over the total population in that breakdown (i.e. age group, citizenship group and sex). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARPT_{at_age/sex/c_ship} = \frac{\forall i_EQ_INC20 < ARPT 60_at_age/sex/c_ship}{\sum_{\forall i_at_age/sex/c_ship} RB050a_{i}} \cdot 100$$

Methodological issues:

- For persons with multiple citizenship and where one of the citizenship is the one of the country of residence, this latter citizenship is recorded/coded.
- Citizenship is referred to the current (at the time of survey) national boundaries and not the boundaries at the time of the reference period. In the case of citizenships that no longer exist, the present-day borders of the country are used.
- Current EU-SILC question only explores the stock of non-EU nationals, with no information on how long they have been in the country.
- The EU-SILC only covers private households, with persons living in collective households and in institutions for asylum seekers and migrant workers excluded from the target population

¹⁰ <u>Eurostat (2011). 'Migrants in Europe. A statistical portrait of the first and second generation'.</u>

There is no information on ethnic status of respondents. So ethnic minorities, including the Roma cannot be identified in EU-SILC. In addition, the categorization of the groups into "EU" and "non-EU" is rather broad and the groups distinguished are too large and heterogeneous.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)
- Time
- Sex (SEX): Total/Male/Female
- Age: From 18 to 54 years/from 18 to 59 years/from 18 to 64 years/18 years or over/from 20 to 64 years/from 25 to 54 years/from 25 to 59 years/from 55 to 64 years/55 years or over/60 years or over/65 years or over
- Citizenship (CITIZEN): EU27-countries except reporting country/foreign country/reporting country/non EU27-countries nor reporting country

Reference period: Survey year for sex and citizenship. Age is the age of the respondent at the end of the income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mli31.sas (VAR_C_BIRTH_CIP_SHIP.sas)

4.2.1.19 At risk of poverty rate by broad group of country of birth (population aged 18 and over)



Dataset: At risk of poverty rate by broad group of country of birth (population aged 18 and over)

Dissemination tree code: <u>ilc_li32</u>

Data source: EU-SILC

Description: The percentage of persons in the total population and in the relevant age, sex and country of birth breakdowns who are <u>at-risk-of-poverty</u>

Key indicator(s) included in the dataset: People at-risk-of-poverty after social transfers (EUROPE 2020), At-risk-of poverty rate (60% of median income) + value of threshold (in PPP) (JAF)

Policy relevance: Migrants are considered to be among the most vulnerable groups to experience poverty and social exclusion. In particular non-EU migrants have also been severely affected by the crisis in the context of increasing unemployment. The loss of employment, compounded with the fact that migrants are often employed in sectors where

working conditions are particularly flexible, raise serious issues in relation to their access to social security safety nets.

Statistical population: Population aged 18 years and over. People with missing values for equivalised disposable income, se, age or country of birth are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the Risk of poverty threshold (ARPTXX).

Country of birth is defined as the country of residence of the mother at the time of birth.

Other concepts: Age, Country of birth group (C_BIRTH)

Calculation method: At-risk-of-poverty rate (ARPT) broken down by age, sex and country of birth ($ARPT_{at_age/sex/c_birth}$) is calculated as the percentage of people in each age group, country of birth group (C_BIRTH) and sex who are at-risk-of-poverty (EQ_INC20<ARPT60) over the total population in that breakdown (i.e. age group, country of birth group and sex). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARPT_{at_age/sex/c_birth} = \frac{\forall i_EQ_INC20 < ARPT 60_at_age/sex/c_birth}{\sum_{\forall i_at_age/sex/c_birth} RB050a_{i}} \cdot 100$$

Methodological issues:

- Country of birth is referred to the current (at the time of survey) national boundaries and not to the boundaries in place at the time of birth.
- In the case of countries that no longer exist (such as parts of the former Soviet Union or others), the present-day borders of the country are used.
- For person born in a place that currently belongs to a country different from the country that the place belonged to at the time of birth, the 'country' which the place belonged to currently (at the time of the survey) is recorded.
- For people born in a place which is now outside the national territory but who feel that they have always been a national citizen, the country of birth should be recorded as according to this citizenship.
- Current EU-SILC question only explores the stock of non-EU nationals, with no information on how long they have been in the country.
- Unlike citizenship, a person's country of birth does not change. The distribution by country of birth is therefore influenced not just by recent migration, but by patterns of migration flows that may have taken place many years previously. Thus, the predominant countries of birth of migrants in a country may reflect particular migration flows that took place decades earlier.

Breakdowns: The dataset provides percentages for the whole population and also broken

down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: From 18 to 54 years/from 18 to 59 years/from 18 to 64 years/18 years or over/from 20 to 64 years/from 25 to 54 years/from 55 to 64 years/from 25 to 59 years/55 years or over/60 years or over/65 years or over
- Country of Birth (C_BIRTH): EU27-countries except reporting country/foreign country/reporting country/non EU27-countries nor reporting country

Reference period: Survey year for sex. Age is the age of the respondent at the end of the income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mli32.sas (VAR_C_BIRTH_CIP_SHIP.sas)

4.2.1.20 At risk of poverty rate by NUTS region



Dataset: At risk of poverty rate by NUTS region **Dissemination tree code:** <u>ilc_li41</u> Data source: EU-SILC

Description: The percentage of persons in the total population and in the relevant NUTS region (basic SILC variable DB040) breakdowns who are <u>at-risk-of-poverty</u>.

Key indicator(s) included in the dataset: People at-risk-of-poverty after social transfers (EUROPE 2020), At-risk-of poverty rate (60% of median income) + value of threshold (in PPP) (JAF)

Policy relevance: Regional disparity in terms of poverty and social exclusion is rather wide across EU countries. This might be related to the fact that countries (with few exceptions) provide only few universal benefits, which could mitigate inequalities of incomes. The forces, which lie behind social exclusion and inclusion, affect different people in different communities in a variety of ways according to the local context. Furthermore local traditions of mutual aid, self-help organisations and other community resources have been regarded as strong in some communities, and may compensate for lower incomes and exclusion from other networks. This section looks at the level of poverty among people of different regions.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income or region are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the Risk of poverty threshold (ARPTXX).

Region (DB040): This variable refers to the region of the residence of the household at the date of interview.

Other concepts: --

Calculation method: At-risk-of-poverty rate (ARPT) broken down by NUTS region ($ARPT_{at_NUTS}$) is calculated as the percentage of people in each group of NUTS region who are at-risk-of-poverty (EQ_INC20<ARPT60) over the total population in that breakdown (i.e. group of NUTS region). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARPT_{at_NUTS} = \frac{\sum_{i_EQ_INC20 < ARPT 60_at_NUTS} RB050a_i}{\sum_{\forall i_at_NUTS} RB050a_i} \cdot 100$$

Methodological issues:

- One should be careful in making cross-country comparisons, because the number of regions per countries varies a great deal.
- One issue in developing regional indicators concerns the choice of the type of units to serve as 'regions'. For a number of substantive and practical reasons, geographical-administrative regions, specifically NUTS regions at various level of classification, appear as the most appropriate choice for EU countries.
- NUTS units are not defined in exactly the same way in different countries and can differ greatly in size and homogeneity
- From an analytical point of view, 2-digit level of NUTS is recommended. Note that for 1 in 3 EU countries the 2 digit level corresponds to the country level

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)/ NUTS1 (Iceland, Norway, Croatia, Switzerland, EU Member States excluding)/ NUTS2 (Iceland, Norway, EU Member States excluding Belgium, Greece, Hungary, United Kingdom (only codes UKI1 and UKI2 included))
- Time

Reference period: Survey year for information about the region. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mli41.sas

4.2.1.21 At risk of poverty rate by degree of urbanization



Dataset: At risk of poverty rate by degree of urbanisation **Dissemination tree code:** <u>ilc_li43</u> **Data source:** EU-SILC

Description: The percentage of persons in the total population and in the relevant degree of urbanisation (basic SILC variable DB100) breakdowns who are <u>at-risk-of-poverty</u>.

Key indicator(s) included in the dataset: People at-risk-of-poverty after social transfers (EUROPE 2020), At-risk-of poverty rate (60% of median income) + value of threshold (in PPP) (JAF)

Policy relevance: While the highest absolute number of people at risk of poverty and social exclusion is found in densely populated (urban) areas of the EU, poverty and social exclusion in thinly populated (rural) areas is a widespread phenomenon throughout the EU. Rural factors affecting poverty and exclusion include the neglect of social exclusion in rural areas by both policy makers and the public; a lack of social housing; car dependency and inadequate public transport; small workplaces associated with low pay and restricted careers; lack of unionisation or collective action of excluded groups; and strong personal networks. The reduction of the number of poor and socially excluded people in rural areas of the EU is crucial for the attainment of the EU2020 headline target.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income or degree of urbanisation are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the Risk of poverty threshold (ARPTXX).

Other concepts: Degree of urbanisation (DEG_URB)

Calculation method: At-risk-of-poverty rate (ARPT) broken down by degree of urbanization ($ARPT_{at_d_urb}$) is calculated as the percentage of people in each group of degree of urbanization (D_URB) who are at-risk-of-poverty (EQ_INC20<ARPT60) over the total population in that breakdown (i.e. group of degree of urbanization). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARPT_{at_d_urb} = \frac{\sum_{i_EQ_INC20$$

Methodological issues:

- There is no single, universally preferred definition of rural areas, nor is there a single rural definition that can serve all policy purposes. EU-SILC survey uses a definition based on human density.
- Following the human density criterion is possible urban areas to be characterised as rural, especially in the case of densely populated areas that are part of regions dominated by mountains with small unincorporated communities.
- Narrowly defined definitions can direct attention to specific populations; they also have the potential consequence of eliminating from policy eligibility places that should be covered.

The proposed 3-category breakdown, focusing on population density rather than on land use, has been retained by the Task Force because it is an acceptable compromise from a user point of view, because it doesn't necessitate additional burden on respondents or statistical offices and because this classification is currently already in use in several harmonised social surveys.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)
- Time
- Degree of Urbanisation (DEG_URB): densely-populated area (at least 500 inhabitants/km²/intermediate urbanized area (between 100 and 499 inhabitants/km²/thinly-populated area (less than 100 inhabitants/km²)

Reference period: Survey year for degree of urbanization. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _li43.sas

4.2.1.22 At risk of poverty rate after deducting housing costs by age and sex



Dataset: At risk of poverty rate after deducting housing costs by age and sex **Dissemination tree code:** <u>ilc_li45</u> **Data source:** EU-SILC

Data source: EU-SILC

Description: The percentage of persons in the total population and in the relevant sex and age breakdowns who are at-risk-of-poverty with the housing costs being deducted, i.e. with an equivalised disposable income without total housing cost below the at-risk-of-poverty threshold calculated in the standard way (ARPT60).

Key indicator(s) included in the dataset: --

Policy relevance:

Since housing costs represent a charge on disposable income that (arguably) must be met before other expenditure, there is a case for deducting these costs from income before assessing the distribution of purchasing power across society and identifying those whose income falls below a particular level, relative to the median. On the other hand, relatively high housing costs might reflect the choice of the people concerned to have a better-quality house in a more attractive and convenient area, rather than to spend their income in other ways. There is, however, no systematic relationship between costs and the quality and size of housing, and so it cannot be assumed that those people with higher housing costs relative to income also generally live in a better-quality or a larger house.

Statistical population: All persons living in private households. Households and individuals therein with missing values for housing costs, equivalised disposable income or with missing age or sex information are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Total housing cost (HH070) refers to current monthly costs connected with the households right to live in the accommodation. The costs of utilities (water, electricity, gas and heating) resulting from the actual use of the accommodation are also included. The value of the total housing costs is deducted from the total disposable income before equivalisation.

Persons at-risk-poverty are those with an <u>Equivalised disposable Income (EQ_INC)</u> (after social transfers) (EQ_INC20) below the <u>Risk of poverty threshold (ARPTXX)</u>.

Other concepts: <u>Age</u>

Calculation method: At-risk-of-poverty rate, with the housing costs being deducted, (ARPThc), broken down by sex and age ($ARPThc_{at_age/sex}$) is calculated as the percentage of people in each sex and age group who are at-risk-of-poverty (EQ_INC20hc<ARPT60) after deducting housing costs over the total population in that breakdown (i.e. group of age and sex). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARPThc_{at_age/sex} = \frac{\forall i_EQ_INC20hc < ARPT60_at_age/sex}{\sum_{\forall i_at_age/sex}} \cdot 100$$

Methodological issues:

• As the housing costs faced by households do not always reflect the true value of the housing they enjoy, housing costs should be deducted in calculated disposable income. However a disadvantage of using an after housing costs measure of disposable income is that it has the effect of understating the relative standard of living of those individuals who benefit from a better quality of housing by paying more for better accommodation. In the case of making comparisons across age groups, it can be argued that as a large proportion of pensioners own their homes and therefore

typically have lower housing costs than those of a working age.

• The strength of the case for measuring the risk of poverty after housing costs, however, depends on how far housing costs can be regarded as a fixed and inescapable charge on income and how far, on the contrary, they represent payment for a consumer good which like any other produces a stream of satisfaction which varies between households according to how much the individuals concerned value having an attractive or spacious place in which to live.

Breakdowns: The dataset provides percentages for the whole population broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Age (AGE): Total/Less than 18 years/From 18 to 64 years/18 years or over/65 years or over
- Sex (SEX): Total/Males/Females

Reference period: Survey year for sex. Age is the age of the respondent at the end of the income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI45.sas (VAR_ARPTXX.sas)

4.2.1.23 At risk of poverty rate after deducting housing costs by degree of urbanization



Dataset: At risk of poverty rate after deducting housing costs by degree of urbanization **Dissemination tree code:** <u>ilc_li48</u> **Data source:** EU-SILC

Description: The percentage of persons in the total population and in the relevant degree of urbanisation group who are at-risk-of-poverty with the housing costs being deducted, i.e. with an equivalised disposable income without total housing cost below the at-risk-of-poverty threshold calculated in the standard way (ARPT60).

Key indicator(s) included in the dataset: --

Policy relevance:

Since housing costs represent a charge on disposable income that (arguably) must be met before other expenditure, there is a case for deducting these costs from income before assessing the distribution of purchasing power across society and identifying those whose income falls below a particular level, relative to the median. On the other hand, relatively high housing costs might reflect the choice of the people concerned to have a better-quality house in a more attractive and convenient area, rather than to spend their income in other ways. There is, however, no systematic relationship between costs and the quality and size of housing, and so it cannot be assumed that those people with higher housing costs relative to income also generally live in a better-quality or a larger house.

Statistical population: All persons living in private households. Households and individuals therein with missing values for housing costs, equivalised disposable income or with missing degree of urbanisation are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Housing cost (HH070) refer to monthly costs connected with the households right to live in the accommodation. The costs of utilities (water, electricity, gas and heating) resulting from the actual use of the accommodation are also included.

Persons at-risk-poverty are those with an <u>Equivalised disposable Income (EQ_INC)</u> (after social transfers) (EQ_INC20) below the <u>Risk of poverty threshold (ARPTXX)</u>.

Other concepts: Degree of urbanisation (DEG_URB)

Calculation method: At-risk-of-poverty rate, with the housing costs being deducted, (ARPThc), broken down by degree of urbanization ($ARPThc_{at_degurb}$) is calculated as the percentage of people in each group of degree of urbanization (degurb) who are at-risk-of-poverty (EQ_INC20hc<ARPT60) after deducting housing costs over the total population in that breakdown (i.e. group of degree of urbanization). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARPThc_{at_degurb} = \frac{\frac{\forall i_EQ_INC20hc < ARPT 60_at_degurb}{\sum_{\forall i_at_degurb}} \cdot 100$$

Methodological issues:

- As the housing costs faced by households do not always reflect the true value of the housing they enjoy, housing costs should be deducted in calculated disposable income. However a disadvantage of using an after housing costs measure of disposable income is that it has the effect of understating the relative standard of living of those individuals who benefit from a better quality of housing by paying more for better accommodation. In the case of making comparisons across age groups, it can be argued that as a large proportion of pensioners own their homes and therefore typically have lower housing costs than those of a working age.
- The strength of the case for measuring the risk of poverty after housing costs, depends on how far housing costs can be regarded as a fixed and inescapable charge on income and how far, on the contrary, they represent payment for a consumer good which like any other produces a stream of satisfaction which varies between households according to how much the individuals concerned value having an attractive or spacious place in which to live.

Breakdowns: The dataset provides percentages for the whole population broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland)
- Time
- Degree of Urbanization (DEG_URB): Total/Densely-populated area/Intermediate urbanised area/Thinly-populated area

Reference period:

Survey year for degree of urbanization. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI48.sas (VAR_ARPTXX.sas)

4.2.1.24 Distribution of population by number of years spent in poverty within a fouryear period

eurostat

Dataset: Distribution of population by number of years spent in poverty within a four-year period

Dissemination tree code: <u>ilc_li51</u> **Data source**: EU-SILC

Description: Distribution (%) of persons who are at-risk-of poverty broken down by the number of years spent in poverty within a four-year period and in the relevant sex breakdowns. Persons at-risk-of poverty are those with an equivalised disposable income below the 'at-risk-of poverty thresholds':

- 40% of the national median equivalised disposable income (ARPT40)
- 50% of the national median equivalised disposable income (ARPT50)
- 60% of the national median equivalised disposable income (ARPT60)
- 70% of the national median equivalised disposable income (ARPT70)
- 40% of the national mean equivalised disposable income (ARPTM40)
- 50% of the national mean equivalised disposable income (ARPTM50)
- 60% of the national mean equivalised disposable income (ARPTM60)

Key indicator(s) included in the dataset: --

Policy relevance:

Poverty is an ongoing process rather than a static position. This feature of poverty represents a real challenge to policy makers in any attempt to identify the most appropriate and efficient policy responses. Individual and household poverty is very often measured at one point in time. This is the approach, which is taken with cross-sectional analysis of poverty. While cross-sectional analysis of poverty is extremely important, it still constitutes a snapshot of a situation at a precise point of time. By excluding the time dimension, the duration of poverty, transitions into and out of poverty, the effect of people's previous experience of poverty and the influential role it plays on current (and future) poverty outcomes cannot be assessed.

Statistical population: All persons living in private households for the duration of the 4 last years. Persons with missing equivalised disposable income or missing sex information are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an <u>Equivalised disposable income (EQ_INC)</u> (after social transfers) below the <u>Risk of poverty threshold (ARPTXX)</u>.

Other concepts: Equivalised disposable income (EQ_INC), Risk of poverty threshold (ARPTXX).

Calculation method:

Let *L* be the subset of the total population consisting of persons that have been in the panel for the last four years and for whom EQ_INC is not missing for any of the years.

The distribution of population at-risk-of poverty within a four-year period broken down by sex $(DISP_{T,D_{at_sex}})$ is calculated as the percentage of people who are at-risk-of poverty (calculated for different cut-off points) within a four-year period in each sex breakdwon over the total population in that breakdown. The weight variable used is an estimation of the Longitudinal weight variable – Four-year duration (RB064e). The variable is estimated for the years for which the real longitudinal weight (RB064) is not provided.

$$DISP_{T,D_{at_sex}} = \frac{\sum_{\forall i \in L, SumT_i = D_at_sex} RB064e_i}{\sum_{\forall i \in L_at_sex} RB064e_i} \cdot 100,$$

where D in (0,1,2,3,4) denoting the number of years spent in poverty and $SumT_i$ counts how many times within the four-year period each individual is at-risk-of poverty (calculated for the different cut-off points).

Methodological issues:

• Income poverty risk at a given point in time may not necessarily imply low living standards in the short term, for example if the persons at-risk have access to savings, to credit, to private insurance, tax credits, to financial assistance from friends and relatives etc. In particular, the cumulative impact of extended periods at risk is to be further assessed.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, excluding Switzerland)
- Time
- Duration (DURATION): 1 year/2 years/3 years/4 years/ Never
- Sex (SEX): Total/Males/Females

Reference period: Survey year for demographic variables (Sex). Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _li51.sas (VAR_ARPTXXip_RB064.sas)

4.2.1.25 At-risk-of-poverty rate for children by highest education level of their parents (population aged 0 to 17 years)



Dataset: At risk of poverty rate for children by highest education level of their parents (population aged 0 to 17 years)

Dissemination tree code: <u>ilc_li60</u>

Data source: EU-SILC

Description: Children (as percentage of persons in the total population aged 0 to 17) and in the relevant parents' education level breakdowns living in the household who are at-risk-of-poverty.

Key indicator(s) included in the dataset: People at-risk-of-poverty after social transfers (EUROPE 2020), At-risk-of poverty rate (60% of median income) + value of threshold (in PPP) (JAF)

Policy relevance:

The promotion and protection of the rights of the child is one of the objectives of the EU 2020 Agenda. The Europe 2020 Strategy sets out a vision for the 21st century of a Europe

¹¹ European Commission – "An EU Agenda for the Rights of the child" [COM(2011) 60].

where the children of today will have a better education, access to the services and to the resources they need to grow up.¹¹

Statistical population: Population aged 0 to 17 living in private households. People with missing values for equivalised disposable income, age or with missing education level for mother and father are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Persons at-risk-poverty are those with an <u>Equivalised disposable Income (EQ_INC)</u> (after social transfers) (EQ_INC20) below the <u>Risk of poverty threshold (ARPTXX)</u>.

Educational level (attainment) of a person is the highest level of an educational programme the person has successfully completed and the study field of this programme. The educational classification to be used is the International Standard Classification of Education (ISCED 1997) coded according to the seven ISCED-97 categories. The expression 'level successfully completed' is associated with obtaining a certificate or a diploma when there is a certification. In cases where there is no certification, successful completion must be associated with full attendance or acquired competences to access the upper level. Persons who have not completed their studies should be coded according to the highest level they have completed.

Other concepts: <u>Age</u>

Calculation method: At-risk-of-poverty rate (ARPTagex) broken down by parents' highest educational level ($ARPTagex_{at_HHISCED}$) is calculated as the percentage of children in each parents' highest educational level group who are at-risk-of-poverty (EQ_INC20<ARPT60) over the total population of children in that breakdown (i.e. group parents' highest level of education). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

 $ARPTagex_{at_HHISCED} = \frac{\forall i_EQ_INC20 < ARPT 60_at_HHISCED}{\sum_{\forall i_at_HHISCED} RB050a_i} \cdot 100$

, where *agex* takes the values: less than 6 years, less than 18 years, from 6 to 11 years, from 12 to 17 years.

Methodological issues:

- Unless specified, at-risk-of-poverty rates are assumed to be 'after social transfers' (i.e. they include social benefits such as pensions and unemployment benefits).
- Income poverty risk at a given point in time may not necessarily imply low living standards in the short term, for example if the persons at risk have access to savings, to credit, to private insurance, tax credits, to financial assistance from friends and relatives etc. In particular, the cumulative impact of extended periods at risk is to be further assessed.

- An approach based on relative income poverty gives a proxy for the risk of being affected by poverty within each country, but makes it more difficult to compare the situation between countries than would be the case with a common threshold.
- Income based indicators are presented for individuals by reference to their household distribution: no information is available about the actual distribution of income between household members. The attribution of the household income to each of its members may impede a detailed analysis of the sex dimension.
- Measuring incomes at the level of private households may have certain implications. The exclusion of collective households might lead to an underrepresentation of certain groups (e.g. the elderly, persons with disabilities).
- Highest educational level of children's parents refers to children living in a household with one or both parents and to the highest level of education attained by (at least one of) the parents. Data are classified according to the International Standard Classification of Education (ISCED): low education corresponds to ISCED levels 0-2 (pre-primary, primary and lower secondary education); medium education corresponds to ISCED levels 3 and 4 (upper secondary and post-secondary non-tertiary education) and high education corresponds to ISCED levels 5 and 6 (tertiary education).
- In face of the diversity of national education systems (with regard to curricula, compulsory schooling ages, equivalences between qualifications and other elements) one should be careful in making cross-country comparisons.
- Persons who have never been in education (and/or illiterate) are excluded from the calculation of the indicator.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Age (AGE): Total/Less than 6 years/less than 18 years /From 6 to 11 years / From 12 to 17 years
- Educational Level (ISCED97): Pre-primary, primary and lower secondary education (levels 0-2)/ Upper secondary and post-secondary non-tertiary education (levels 3 and 4)/ First and second stage of tertiary education (levels 5 and 6)

Reference period: Survey year for Educational Level (ISCED97). Age is the age of the respondent at the end of the income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI60.sas

4.2.2 Monetary poverty for elderly people (ilc_pn)

4.2.2.1 At risk of poverty rate of older people by sex and selected age groups



Dataset: At-risk-of-poverty rate of older people by sex and selected age groups **Dissemination tree code:** <u>ilc_pnp1</u> **Data source:** EU-SILC

Description: Persons (as percentage of persons in the total population or as thousands of persons) and in the relevant group of age and sex breakdowns who are <u>at-risk-of-poverty</u>, i.e. an equivalised disposable income (after social transfer) below the at-risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income after social transfers.

Key indicator(s) included in the dataset: At-risk-of-poverty rate of elderly people, (65+) (OMC), At-risk-of poverty rate of older people (65+) by sex (JAF)

Policy relevance:

Social exclusion arises from multiple sources, some endogenous such as sex, age and some exogenous such as poverty, material deprivation, work. Poverty has a differential impact on women and men, on children, the elderly and the rest of the population, based on their different roles and responsibilities.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of total population, thousands of persons

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the 60% Risk of poverty threshold (ARPTXX).

Other concepts: Equivalised disposable Income (EQ_INC), Age

Calculation method: At-risk-of-poverty rate (ARPT) broken down by age and sex ($ARPT_{at_age/gender}$) is calculated as the percentage of people (or thousands of persons) in each age and sex group who are at-risk-of-poverty (calculated for different cut-off points) over the total population in that breakdown (i.e. age group and sex). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).



Methodological issues:

- Unless specified, at-risk-of-poverty rates are assumed to be 'after social transfers' (i.e. they include social benefits such as pensions and unemployment benefits).
- Income poverty risk at a given point in time may not necessarily imply low living standards in the short term, for example if the persons at risk have access to savings, to credit, to private insurance, tax credits, to financial assistance from friends and relatives etc. In particular, the cumulative impact of extended periods at risk is to be further assessed.
- An approach based on relative income poverty gives a proxy for the risk of being affected by poverty within each country, but makes it more difficult to compare the situation between countries than would be the case with a common threshold.
- Income based indicators are presented for individuals by reference to their household distribution: no information is available about the actual distribution of income between household members. The attribution of the household income to each of its members may impede a detailed analysis of the sex dimension.
- Measuring incomes at the level of private households may have certain implications. The exclusion of collective households might lead to an underrepresentation of certain groups (the elderly, persons with disabilities).

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Less than 65 years/65 years or over

Reference period: Survey year for sex. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI02.sas

4.2.2.2 At risk of poverty rate of older people, by age and sex



Dataset: At-risk-of-poverty rate of older people, by age and sex **Dissemination tree code:** <u>ilc_pns1</u> **Data source:** EU-SILC

Description: Persons (as percentage of persons in the total population or as thousands of persons) and in the relevant group of age and sex breakdowns who are <u>at-risk-of-poverty</u>, i.e. an equivalised disposable income (after social transfer) below the at-risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income after social transfers.

Key indicator(s) included in the dataset: At-risk-of-poverty rate of elderly people, (60+, 75+) (OMC)

Policy relevance: Social exclusion arises from multiple sources, some endogenous such as sex, age and some exogenous such as poverty, material deprivation, work. Poverty has a differential impact on women and men, on children, the elderly and the rest of the population, based on their different roles and responsibilities. Women are more likely than men to interrupt their employment or to work part-time/reduced hours to attend to family care responsibilities.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of total population, thousands of persons

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the 60% Risk of poverty threshold (ARPTXX).

Other concepts: Equivalised disposable Income (EQ_INC), Age

Calculation method: At-risk-of-poverty rate (ARPT) broken down by age and sex ($ARPT_{at_age/sex}$) is calculated as the percentage of people (or thousands of persons) in each age and sex group who are at-risk-of-poverty (calculated for different cut-off points) over the total population in that breakdown (i.e. age group and sex). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARPT_{at_age/sex} = \frac{\forall i_EQ_INC20 < ARPT _{60_at_age/sex}}{\sum_{\forall i_at_age/sex} RB050a_i} \cdot 100$$

$$ARPT_{at_age/sex} = \frac{\forall i_EQ_INC20 < ARPT _{60_at_age/sex}}{1000}$$

Methodological issues:

- Unless specified, at-risk-of-poverty rates are assumed to be 'after social transfers' (i.e. they include social benefits such as pensions and unemployment benefits).
- Income poverty risk at a given point in time may not necessarily imply low living standards in the short term, for example if the persons at risk have access to savings, to credit, to private insurance, tax credits, to financial assistance from friends and relatives etc. In particular, the cumulative impact of extended periods at risk is to be further assessed.
- An approach based on relative income poverty gives a proxy for the risk of being affected by poverty within each country, but makes it more difficult to compare the situation between countries than would be the case with a common threshold.
- Income based indicators are presented for individuals by reference to their household distribution: no information is available about the actual distribution of income between household members. The attribution of the household income to each of its members may impede a detailed analysis of the sex dimension.
- Measuring incomes at the level of private households may have certain implications. The exclusion of collective households might lead to an underrepresentation of certain groups (the elderly, persons with disabilities).

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Less than 60 years/60 years or over/less than 75 years/75 years or over

Reference period: Survey year for sex. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI02.sas

4.2.2.3 At risk of poverty rate for pensioners



Dataset: At-risk-of-poverty rate for pensioners **Dissemination tree code:** <u>ilc_pns6</u> **Data source:** EU-SILC

Description: Retired persons as percentage of persons in the total population and in the relevant group of sex breakdowns who are <u>at-risk-of-poverty</u>, i.e. with an equivalised disposable income (after social transfer) below the at-risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income after social transfers.

Key indicator(s) included in the dataset: At-risk-of-poverty rate for pensioners (OMC)

Policy relevance: The poverty rate of pensioners provides a key indication of the capacity of pension systems to provide adequate income to older people. This indicator complements the poverty risk rate for elderly by focusing on the elderly who claim that their main activity status is retired, hence isolating them from elderly who are at work, unemployed or other inactive. EU-SILC data show¹² that at EU-27 level for year 2008 the fact of being retired does not influence significantly the risk of poverty (24% in the target group against 23% in the rest of population). However the situation of the retired persons is contrasted. They are less at risk in LU, NL, HU, FR, IT and DE. However, in several countries their risk is higher, in particular in CY, LV, EE, BG, LT, SI and UK.

Statistical population: All persons aged 18 years or over living in private households who are pensioners (i.e. retired persons). People with less than 7 months declared in the calendar of activities are excluded. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of total population

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the 60% Risk of poverty threshold (ARPTXX).

The most frequent Activity Status (ACTSTA) is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status (PL073 – PL090) is available.

Other concepts: Equivalised disposable Income (EQ_INC), Age, Activity Status (ACTSTA)

Calculation method: At-risk-of-poverty rate (*ARPTretired*) for pensioners (over the age of 18) broken down by sex (*ARPTretired*_{at_sex}) is calculated as the percentage of retired people in each sex group who are at-risk-of-poverty over the total population of retired people in that breakdown (i.e. sex group). The weight variable used is the Personal Cross Sectional Weight (PB040).

$$ARPTretired_{at_sex} = \frac{\sum_{i_EQ_INC20 < ARPT60_at_sex} PB040_{i}}{\sum_{\forall i_at_age/sex} PB040_{i}} \cdot 100$$

Methodological issues:

• The most frequent activity status is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. Consequently, where an individual provides

¹² Eurostat (2010). 'Multiple dimensions of poverty and social exclusion. The example of the Europe 2020 strategy' (http://www.dgins-sofia2010.eu/pdocs/DGINS Session III Eurostat_final.pdf)

information on his activity status over 12 months, his most frequent activity status will be the status he declares to have occupied for at least 7 months. Individuals who have spent only half or less than the total number of declared months in any activity status are excluded from the computation. People with less than 7 months declared in the calendar of activities are excluded.

- The activity statuses cannot be considered as a perfectly hierarchical structure. Due to the construction of the activity statuses, the subset of the total population 'employed persons' will contain more than the sum of 'employees' and 'employed persons except employees'. The same holds for the subset 'not employed persons'. That is, the breakdowns of 'employed persons' and 'not employed persons' are not exhaustive. This is the case because persons who spend less than half of the reported time in two or more breakdowns of 'employed persons' or 'not employed persons' may qualify as being 'employed person' or 'not employed person' but not any of the breakdowns.
- The most frequent activity status for each month is based on a self-assessment by the interviewees. Therefore, it may not be entirely consistent with the ILO coding that is applied in the European Union Labour Force Survey.
- This indicator measures activity status at the individual level.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age (AGE): 18 years or over/65 years or over

Reference period: Survey year for sex. Age is the age of the respondent at the end of the income reference period. Income reference period for income variables and activity status – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI04.sas

4.2.2.4 At risk of poverty rate of older people by tenure status



Dataset: At-risk-of-poverty rate of older people by tenure status **Dissemination tree code:** <u>ilc_pns7</u> **Data source:** EU-SILC

Description: Elderly persons as percentage of persons in the total population of elderly people and in the relevant group of sex and tenure status breakdowns who are <u>at-risk-of-</u>
<u>poverty</u>, i.e. an equivalised disposable income (after social transfer) below the at-risk-ofpoverty threshold, which is set at 60 % of the national median equivalised disposable income after social transfers.

Three categories to define older (elderly) people are used: 60 years and over (60+), 65 years and over (65+) and 75 years and over (75+).

Key indicator(s) included in the dataset: At-risk-of-poverty rate of elderly people by tenure status, (60+, 65+,75+) (OMC)

Policy relevance:

Whilst SILC household total disposable income is considered to be the best basis for poverty analysis it is acknowledged to be an imperfect measure of welfare. An important issue for welfare comparison, between households and between countries, is the income generated from owner-occupied housing and housing beneath market rents (imputed rent). Household total disposable income takes no account of imputed rent. Furthermore although people more vulnerable to poverty are not exclusively housed in the social rented sector or in council housing it is resonable a link between poverty and tenure status.

This indicator complements the poverty risk rate for elderly by focusing on the tenure status (owner, tenant) of elderly people.

Statistical population: All persons aged 60 (or 65 or 75) years or over living in private households. People with missing values for equivalised disposable income or tenure status are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of total population of older people (60+, 65+, 70+)

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the 60% Risk of poverty threshold (ARPTXX).

(Accommodation) tenure status is defined a) owner (or occupied rent-free) and b) tenant at prevailing market rent or at reduced rate (<u>Tenure status (TENSTA</u>)).

The variables used are HH020/HH021 in combination with HY100G/HY100N for distinguishing between owners with and without mortgage.

Other concepts: Equivalised disposable Income (EQ_INC), Age

Calculation method: At-risk-of-poverty rate (*ARPTagex*) broken down by sex and tenure status, (*ARPTagex_{at_sex/TENURE}*) is calculated as the percentage of older people in each tenure status group and sex group who are at-risk-of-poverty over the total population of older people in that breakdown (i.e. tenure status group and sex). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARPTagex_{at_sex/TENURE} = \frac{\sum_{i=EQ_INC20 < ARPT60_at_sex/TENURE}}{\sum_{i=at_sex/TENURE} RB050a_{i}} \cdot 100$$

, where *agex* takes the values: 60 years and over, 65 years and over, 70 years and over.

Methodological issues:

• The accommodation tenure status is assigned to each household member.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Tenure Status (TENURE): Total/owner/tenant
- Age (AGE): 60 years or over/65 years or over/75 years or over

Reference period: Survey year for sex and tenure status. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI08.sas

4.2.2.5 Dispersion around the at-risk-of-poverty threshold by sex and selected age groups



Dataset: Dispersion around the at-risk-of-poverty threshold by sex and selected age groups **Dissemination tree code:** <u>ilc_pns8</u>

Data source: EU-SILC

Description: Elderly persons (as percentage of persons in the total population of elderly people or as thousands of elderly persons) and in the relevant sex breakdowns with an equivalised disposable income (after social transfer) below the 50% and 70% at-risk-of-poverty threshold (i.e. 50% or 70 % of the national median equivalised disposable income after social transfers).

Three categories to define older (elderly) people are used: 60 years and over (60+), 65 years and over (65+) and 75 years and over (75+).

Key indicator(s) included in the dataset: Dispersion around the at-risk-of-poverty threshold of elderly people, (60+, 65+,75+) (OMC)

Policy relevance:

This indicator complements the 'standard' poverty risk rate for elderly people which is calculated using the 60% median threshold. Eurostat uses this threshold to calculate the at-risk-of poverty headline indicators. However, this choice is arbitrary. Eurostat calculates a range of complementary poverty rates according to different thresholds (e.g. 50% and 70%) to examine dispersion around the standard 60% threshold.

Statistical population: All persons aged 60 (or 65 or 70) years or over living in private households. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of total population, thousands of persons

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the 50% and 70% Risk of poverty threshold (ARPTXX).

Other concepts: Equivalised disposable Income (EQ_INC), Age

Calculation method: At-risk-of-poverty threshold (*ARPT50agex*, *ARPT70agex*) broken down by sex $ARPT50agex_{at_sex}$ is calculated as percentage as the percentage of older people in sex group who are at-risk-of-poverty over the total population of older people in that breakdown (i.e. sex group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARPT50agex_{at_sex} = \frac{\sum_{i=EQ_INC20

$$ARPT70agex_{at_sex} = \frac{\forall_{i=EQ_INC20$$$$

, where *agex* takes the values: 60 years and over, 65 years and over, 70 years and over.

Methodological issues: --

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age (AGE): 60 years or over/65 years or over/75 years or over

Reference period: Survey year for sex. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI02.sas

4.2.2.6 Gender differences in the at-risk-of-poverty rate



Dataset: Gender differences in the at-risk-of-poverty rate **Dissemination tree code:** <u>ilc_pnp9</u> **Data source:** EU-SILC

Description: This dataset calculates two different indicators:

- a. Persons as percentage of persons in the total population of single-person households and in the relevant group of age and sex breakdowns who are <u>at-risk-of-poverty</u>, i.e. with an equivalised disposable income (after social transfer) below the at-risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income after social transfers.
- b. Absolute difference between males and females in the at-risk-of-poverty rate for single-person households

Key indicator(s) included in the dataset: Gender differences in the at-risk-of-poverty rate of elderly people, (65+) (OMC)

Policy relevance:

This indicator provides an indication whether pension systems are adapted to the needs and aspirations of women and men. Women are poorly covered by the employment-related entitlement mechanisms of most pension systems, owing to historical gender roles and subsequent gendered patterns of activity, employment and income. Though gender differences in longevity make women the great majority of recipients in any provision for old age, they have typically had to rely on benefits at the margin or outside of pension systems: widows, survivors and minimum pensions or minimum income provision for elderly - possibly in combination. As a result, adequacy of pensions has an important gender aspect.

Statistical population: All persons living in single-person households. People with missing values for equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Absolute difference, Percentage of total population

Main concepts used:

Persons at-risk-poverty are those an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the 60% Risk of poverty threshold (ARPTXX).

Other concepts: Equivalised disposable Income (EQ_INC), Age, Household types (HHTYP)

Calculation method:

a. At-risk-of-poverty rate by age and sex for **single-person households** ($ARPT_{at_age/sex}$) is calculated as the percentage of people in each age group and sex who are at-risk-of-poverty over the total population in that breakdown (i.e. age group and sex). The

weight variable used is the Personal Cross Sectional Weight (PB040). $ARPT_{at_age/sex} = \frac{\forall i_EQ_INC20 < ARPT 60_at_age/sex}{\sum PB040_i} \cdot 100$

$$\forall i_at_age/sex$$

The absolute gender differences in the at-risk-of-poverty rate for single person
households (*APRTdif f*) broken down by age *ARPTdif f_{u_age}* is calculated as the
difference between males and females in the at-risk-of-poverty rate for single person
households in that breakdown (i.e. age group).

$$ARPT dif f_{at_age} = ARPT_{at_age/MALE} - ARPT_{at_age/FEMALE}$$

Methodological issues:

b

• The indicator is calculated for single person households and then broken down by sex (total, male, females). The use of single person households avoids making assumptions about the intra-household allocation of incomes, which might affect the conclusions drawn from this indicator. However, the use of single person households is likely to introduce an age bias. Results for the single households cannot be assumed to hold for all household types.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Less than 65 years/65 years or over

Reference period: Survey year for sex. Age is the age of the respondent at the end of income reference period– household type is also based on age. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: PNP9.sas

4.2.2.7 Relative median income ratio (65+)



Dataset: Relative median income ratio (65+) **Dissemination tree code:** <u>ilc_pnp2</u> **Data source:** EU-SILC **Description:** Ratio of the median equivalised disposable income of people aged above 65 to the median equivalised disposable income of those aged below 65 broken down by group of sex.

Key indicator(s) included in the dataset: Median relative income of elderly people (65+) (JAF)

Policy relevance:

This indicator refers to the adequacy of pensions, by comparing the income of the elderly to the income of younger generations. The purpose of pensions is to provide an adequate level of income to those no longer in work, ensuring that they can continue to participate actively in society. The European Union supports Member States in facing the challenges of an ageing population and its implications for the maintenance of adequate and sustainable pensions.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Ratio

Main concepts used: --

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Age

Calculation method: Relative median income ratio (65+) broken down by sex ($EQ_INC20rel65$) is calculated as the ratio of the median equivalised disposable income after social transfers (EQ_INC20) of people aged above the age of 65 over the median equivalised disposable income after social transfers (EQ_INC20) of people aged below 65.

$$EQ_INC20rel65_{at_sex} = \frac{EQ_INC20_{MEDIAN_at_GE65/sex}}{EQ_INC20_{MEDIAN_at_LT65/sex}}$$

Methodological issues:

- Compared to the aggregate replacement ratio, the median relative income ratio is broader in scope. This applies both to the income concept and to the age groups that are considered.
- In the calculation of the aggregate replacement ratio, income of elderly is restricted to pensions; income of the younger age group is limited to earnings. For the median relative income ratio, all sources of income are considered.
- Moreover, the median relative income ratio considers two broad age groups (0 to 64 compared to population aged 65 or over), whereas the aggregate replacement ratio focuses on the population aged 65 -74 for the elderly and the population aged 50-59 for the younger age group.

Breakdowns: The dataset provides data for the whole population and also broken down by

• Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)

- Time
- Sex (SEX): Total/Male/Female

Reference period: Survey year for sex. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: PNP2.sas

4.2.2.8 Relative median income ratio (60+)



Dataset: Relative median income ratio (60+) **Dissemination tree code:** <u>ilc_pns2</u> Data source: EU-SILC

Description: Ratio of the median equinalised disposable income of people aged above 60 to the median equivalised disposable income of those aged below 60 broken down by group of sex.

Key indicator(s) included in the dataset: --

Policy relevance: This indicator refers to the adequacy of pensions, by comparing the income of the elderly to the income of younger generations. The purpose of pensions is to provide an adequate level of income to those no longer in work, ensuring that they can continue to participate actively in society. The European Union supports Member States in facing the challenges of an ageing population and its implications for the maintenance of adequate and sustainable pensions.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Ratio

Main concepts used: --

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Age

Calculation method: Relative median income ratio (60+) broken down by sex ($EQ_INC20rel60$) is calculated as the ratio of the median equivalised disposable income after social transfers (EQ_INC20) of people aged above the age of 65 over the median equivalised disposable income after social transfers (EQ_INC20) of people aged below 65.

$$EQ_INC20rel60_{at_sex} = \frac{EQ_INC20_{MEDIAN_at_GE60/sex}}{EQ_INC20_{MEDIAN_at_LT60/sex}}$$

Methodological issues:

- Compared to the aggregate replacement ratio, the median relative income ratio is broader in scope. This applies both to the income concept and to the age groups that are considered.
- In the calculation of the aggregate replacement ratio, income of elderly is restricted to pensions; income of the younger age group is limited to earnings. For the median relative income ratio, all sources of income are considered.
- Moreover, the median relative income ratio considers two broad age groups (0 to 59 compared to population aged 60 or over), whereas the aggregate replacement ratio focuses on the population aged 65 -74 for the elderly and the population aged 50-59 for the younger age group.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female

Reference period: Survey year for sex. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: PNP2.sas

4.2.2.9 Gender differences in the relative median income ratio (65+)

eurostat

Dataset: Gender differences in the relative median income ratio (65+) **Dissemination tree code:** <u>ilc_pnp10</u> **Data source:** EU-SILC

Description:

This dataset calculates two different indicators:

- a. Ratio of the median equivalised disposable income of people aged above 65 to the median equivalised disposable income of those aged below 65 broken down by group of sex.
- b. Absolute difference between males and females in the ratio calculated above for single-person households

Key indicator(s) included in the dataset: Gender differences in the relative median income ratio of elderly people, (65+, 75+) (OMC)

Policy relevance: This indicator provides an indication whether pension systems are adapted to the needs and aspirations of women and men. Women are poorly covered by the employment-related entitlement mechanisms of most pension systems, owing to historical gender roles and subsequent gendered patterns of activity, employment and income. Though gender differences in longevity make women the great majority of recipients in any provision for old age, they have typically had to rely on benefits at the margin or outside of pension systems: widows, survivors and minimum pensions or minimum income provision for elderly - possibly in combination. As a result, adequacy of pensions has an important gender aspect

Statistical population: All persons living in single-person households. People with missing values for equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Ratio

Main concepts used: --

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Age, Household types (HHTYP)

Calculation method:

a. Relative median income ratio (65+) for single-person households broken down by sex (*EQ_INC20rel65*) is calculated as the ratio of the median equivalised disposable income after social transfers (EQ_INC20) of people aged above the age of 65 over the median equivalised disposable income after social transfers (EQ_INC20) of people aged below 65.

$$EQ_INC20rel65_{at_sex} = \frac{EQ_INC20_{MEDIAN_at_GE65/sex}}{EQ_INC20_{MEDIAN_at_LT65/sex}}$$

a. The absolute gender differences in the relative median income ratio for singleperson households $EQ_INCrel65diff$ is calculated as the difference between males and females in the relative median income ratio (65+) for single-person households.

$$EQ_INCrel65diff = EQ_INC20rel65_{MALE} - EQ_INC20rel65_{FEMALE}$$

- The relative median income ratio is calculated for single person households. For this indicator a total and a breakdown by sex as well as the absolute difference in the relative median income ratio have to be calculated.
- The use of single person households avoids making assumptions about the intrahousehold allocation of incomes, which might affect the conclusions drawn from this indicator. However, the use of single person households is likely to introduce an age bias. Results cannot be assumed to hold for all household types.

• For the age breakdown of people aged 75 and more, there may be some potential statistical difficulties due to the size of samples, and non-coverage of collective households by household surveys.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female

Reference period: Survey year for sex. Age is the age of the respondent at the end of income reference period - household type is also based on age. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: PNP10.sas

4.2.2.10 Gender differences in the relative median income ratio (60+)



Dataset: Gender differences in the relative median income ratio (60+) **Dissemination tree code:** ilc_pns11 **Data source:** EU_SU C

Data source: EU-SILC

Description:

This dataset calculates two different indicators:

- a. Ratio of the median equivalised disposable income of people aged above 60 (or 75) to the median equivalised disposable income of those aged below 60 (or 70) broken down by group of sex.
- b. Absolute difference between males and females in the ratio calculated above for single-person households

Key indicator(s) included in the dataset: Gender differences in the relative median income ratio of elderly people, (60+, 75+) (OMC)

Policy relevance:

This indicator provides an indication whether pension systems are adapted to the needs and aspirations of women and men. Women are poorly covered by the employment-related entitlement mechanisms of most pension systems, owing to historical gender roles and subsequent gendered patterns of activity, employment and income. Though gender differences in longevity make women the great majority of recipients in any provision for old age, they have typically had to rely on benefits at the margin or outside of pension systems: widows, survivors and minimum pensions or minimum income provision for elderly - possibly in combination. As a result, adequacy of pensions has an important gender

aspect.

Statistical population: All persons living in single-person households. People with missing values for equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Ratio

Main concepts used: --

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Age, Household types (HHTYP)

Calculation method:

b. Relative median income ratio (60+ or 75+) for single-person households broken down by sex ($EQ_INC20rel60$ and $EQ_INC20rel75$) is calculated as the ratio of the median equivalised disposable income after social transfers (EQ_INC20) of people aged above the age of 60 (or 75) over the median equivalised disposable income after social transfers (EQ_INC20) of people aged below 60 (or 75).

$$EQ_INC20rel60_{at_sex} = \frac{EQ_INC20_{MEDIAN_at_GE60/sex}}{EQ_INC20_{MEDIAN_at_LT60/sex}}$$
$$EQ_INC20rel75_{at_sex} = \frac{EQ_INC20_{MEDIAN_at_GE75/sex}}{EQ_INC20_{MEDIAN_at_LT75/sex}}$$

b. The absolute gender differences in the relative median income ratio for singleperson households $EQ_INCrel60diff$ and $EQ_INCrel75diff$ is calculated as the difference between males and females in the relative median income ratio (60+ or 75+) for single-person households.

 $EQ_INCrel60diff = EQ_INC20rel60_{MALE} - EQ_INC20rel60_{FEMALE}$

 $EQ_INCrel75diff = EQ_INC20rel75_{MALE} - EQ_INC20rel75_{FEMALE}$

- The relative median income ratio is calculated for single person households. For this indicator a total and a breakdown by sex as well as the absolute difference in the relative median income ratio have to be calculated.
- The use of single person households avoids making assumptions about the intrahousehold allocation of incomes, which might affect the conclusions drawn from this indicator. However, the use of single person households is likely to introduce an age bias. Results cannot be assumed to hold for all household types.

• For the age breakdown of people aged 75 and more, there may be some potential statistical difficulties due to the size of samples, and non-coverage of collective households by household surveys.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female

Reference period: Survey year for sex. Age is the age of the respondent at the end of income reference period - household type is also based on age. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: PNS11.sas

4.2.2.10 Aggregate replacement ratio



Dataset: Aggregate replacement ratio **Dissemination tree code:** <u>ilc_pnp3</u> **Data source:** EU-SILC

Description: Median individual pension income of population aged 65-74 relative to median individual earnings from work of population aged 50-59, excluding other social benefits broken down by sex.

Key indicator(s) included in the dataset: Aggregate replacement ratio (excluding other social benefits) (JAF)

Policy relevance:

This indicator refers to the adequacy of pensions, by measuring the level of retired persons' pensions relative to the income from work of people in the decade before retirement. The purpose of pensions is to provide an adequate level of income to those no longer in work, ensuring that they can continue to participate actively in society. The European Union supports Member States in facing the challenges of an ageing population and its implications for the maintenance of adequate and sustainable pensions

Statistical population: All persons at-work aged between 50 and 59 years and all pensioners between 65 and 74 years living in private households. People with less than 12 months declared in the calendar of activities are excluded. People between 65 and 74 years with missing value for pension income or people between 50 and 59 years with missing value for working income are excluded. Persons living in collective households and in

institutions are generally excluded from the target population. **Unit of measurement:** Ratio

Main concepts used: --

Other concepts: Working Income (INCWRK), Median Working Income (MEDIAN_INCWRK), Pension Income (INCPEN), Median Pension Income (MEDIAN_INCPEN)

Calculation method: The aggregate replacement ratio broken down sex $(AGRR_{at_sex})$ is calculated as the ratio of the median pension income $(INCPEN_{MEDIAN})$ for people aged between 65 and 74 years old to the median working income $(INCWRK_{MEDIAN})$ for people aged between 50 and 59 years.

$$AGRR_{at_sex} = \frac{INCPEN_{MEDIAN_at_65-74/sex}}{INCWRK_{MEDIAN_at_50-59/sex}}$$

Methodological issues:

- Compared to the median relative income ratio, the aggregate replacement ratio is narrower in scope. This applies both to the income concept as to the age groups that are considered.
- Equivalisation is not performed to gross income, because it is inappropriate. No account is taken of differences in household composition or size, which may affect the adequacy of the income.
- Pension income covers pensions from individual private plans, old age benefits and survivor benefits.
- Other social benefits include unemployment-related benefits; family-related benefits; benefits relating to sickness or invalidity; education-related allowances; any other personal social benefits. Work income includes income from wage and salary employment and income from self-employment.
- No account is taken of other income sources like investment income or social transfers between households.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Indicator (INDIC_IL): 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

Reference period: Survey year for sex. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: PNP3.sas

4.2.2.11 Gender differences in the aggregate replacement ratio



Dataset: Gender differences in the aggregate replacement ratio **Dissemination tree code:** <u>ilc_pnp11</u> **Data source:** EU-SILC

Description: Median individual pension income of population aged 65-74 relative to median individual earnings from work of population aged 50-59, excluding other social benefits broken down by sex.

Key indicator(s) included in the dataset: Gender differences in the aggregate replacement ratio (OMC)

Policy relevance: This indicator provides an indication whether pension systems are adapted to the needs and aspirations of women and men. Women are poorly covered by the employment-related entitlement mechanisms of most pension systems, owing to historical gender roles and subsequent gendered patterns of activity, employment and income. Though gender differences in longevity make women the great majority of recipients in any provision for old age, they have typically had to rely on benefits at the margin or outside of pension systems: widows, survivors and minimum pensions or minimum income provision for elderly - possibly in combination. As a result, adequacy of pensions has an important gender aspect.

Statistical population: All persons at-work aged between 50 and 59 years and all pensioners between 65 and 74 years living in private households. People with less than 12 months declared in the calendar of activities are excluded. People between 65 and 74 years with missing value for pension income or people between 50 and 59 years with missing value for working income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Ratio

Main concepts used: --

Other concepts: Working Income (INCWRK)

Median Working Income (MEDIAN_INCWRK), Pension Income (INCPEN), Median Pension Income (MEDIAN_INCPEN)

Calculation method: The aggregate replacement ratio broken down sex $(AGRR_{at_sex})$ is calculated as the ratio of the median pension income $(INCPEN_{MEDIAN})$ for people aged between 65 and 74 years old to the median working income $(INCWRK_{MEDIAN})$ for people aged between 50 and 59 years.

AGRR -	INCPEN _{MEDIAN_at_65-74/sex}
$AOIII_{at_sex} =$	INCWRK _{MEDIAN at 50-59/sex}

Methodological issues:

- Gender differences in the aggregate replacement ratio need to be interpreted carefully, particularly in relation to earnings of women aged 50-59. For example, if the female aggregate replacement ratio is higher than for males, this does not necessarily refer to a pension's policy issue.
- The aggregate replacement ratio is a crude measure of comparison of the pension income of individuals in the upper age group and the income from work of persons in the lower age group. It should be taken into account that this aggregate calculation does not in fact compare the situation of the same individuals before and after the cut-off age.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female

Reference period: Survey year for sex. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: PNP9.sas

4.2.2.12 Inequality of income distribution S80/S20 income quintile share ratio

eurostat

Dataset: Inequality of income distribution S80/S20 income quintile share ratio **Dissemination tree code:** <u>ilc_pns4</u>

Data source: EU-SILC

Description: The ratio of total income received by the 20% of the country's population with the highest income (top quintile) to that received by the 20% of the country's population with the lowest income (lowest quintile). Income must be understood as equivalised disposable income.

Key indicator(s) included in the dataset: Inequality of income distribution - S80/S20 income quintile share ratio, elderly people, (65+) (OMC), S80/S20 (JAF)

Policy relevance: The S80/S20 interquintile share ratio refers to income inequalities. Whereas poverty risk is concerned with the bottom of the income distribution, the quintile share ratio reflects the range of the income distribution: It measures the size of the gap

between the bottom and top incomes in a Member State.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Ratio

Unit of measurement: Rati

Main concepts used: --

Other concepts: Equivalised disposable Income (EQ_INC), Inter – Quantile

Calculation method: The S80/S20 income quintile share ratio broken down by age ($S80_20_{at_age}$) is calculated as the weighted ratio of the equivalised disposable income after social transfers (EQ_INC20) of people belonging in the fifth (top) income quintile to the equivalised disposable income after social transfers (EQ_INC20) of those belonging in the first (lowest) income quintile. The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$S80_20_{at_age} = \frac{\sum_{i=in_f \text{ if } th_qu \text{ int } ile} RB050a_i \times EQ_INC20_{i_at_age}}{\sum_{\forall i_in_f \text{ if } st_qu \text{ int } ile} RB050a_i \times EQ_INC20_{i_at_age}}$$

Methodological issues:

- The quintile shares are sensitive to outliers. Extreme incomes, especially at the top end of the distribution, can have a strong influence on this indicator.
- The value this indicator takes when calculated separately for the two age groups does not necessarily imply anything about the distribution of income within one country's population. Rather, it measures solely the distribution of income within a particular age group, treating the complementing age group as though it was not present. One cannot add the inequality of both groups to obtain the overall inequality.
- As the quintiles are calculated at the level of the individuals (not the households) in the sample, individuals in the same age group within the same household could be sorted into different adjoining quintiles, even though their equivalised disposable income would be equal by definition.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Age: Less than 65 years/65 years or over

Reference period: Survey year for sex. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: DI11.sas

4.2.2.13 Relative median at-risk-of-poverty gap of elderly people



Dataset: Relative median at-risk-of-poverty gap of elderly people **Dissemination tree code:** <u>ilc_pns5</u> **Data source:** EU-SILC

Description: The poverty gap of elderly people (i.e. people aged a) 65 or over and b) 75 or over) is measured as the difference between the median equivalised disposable income of elderly people below who are <u>at-risk-of-poverty</u> and the poverty threshold itself (60% of median equivalised income), expressed as a percentage of the threshold.

Key indicator(s) included in the dataset: Relative median at-risk-of-poverty gap of elderly people, (65+, 75+) (OMC)

Policy relevance: The relative median poverty risk gap refers to the intensity of poverty risk. It measures the depth of poverty for a 'typical' poor person within a Member State. Whereas the poverty risk is concerned with the share of the population that has an income below a specified poverty threshold, the poverty gap measures how strongly these incomes fall short of the poverty line, or the 'depth of poverty'.

Statistical population: All elderly people (a) 65 years or over or b) 75 years or over) living in private households. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage

Main concepts used:

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the Risk of poverty threshold (ARPTXX).

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Age

Calculation method: Relative median at-risk-of-poverty gap of elderly people (RAROPG) broken down by age, ($RAROPG_{at_age/sex}$) is calculated as the difference between the median equivalised disposable income of people below the at-risk-of-poverty threshold (EQ_INC20_{median/at_poor_age/sex}) and the at-risk-of-poverty threshold (ARPT60), expressed as a percentage of the at-risk-of-poverty threshold, in each age group and sex.

 $RAROPG_{at_age/sex} = \frac{ARPT60_{age/sex} - EQ_INC20_{median/at_poor_age/sex}}{ARPT60_{age/sex}} \cdot 100$

Methodological issues:

- The poverty gap represents the poverty gap of the 'median person' who is at risk of poverty. However, it does not convey any information on the distribution of the poverty gap among the population at-risk-of-poverty.
- The median poverty gap is preferred to the total poverty gap or mean poverty gap, in as far as the latter are more sensitive to extremely low and negative incomes, (which may be due to income measurement errors).
- The poverty gap is expressed as a percentage of the at-risk of poverty threshold in order to make data comparable across countries.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Age: 65 years or over/75 years or over
- Sex (SEX): Total

Reference period: Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: LI11.sas

4.2.3 In-work poverty (ilc_iw)

4.2.3.1 In-work at-risk-of-poverty rate by age and sex



Dataset: In-work at-risk-of-poverty rate by age and sex **Dissemination tree code:** <u>ilc_iw01</u> **Data source:** EU-SILC

Description: The percentage of persons in the total population who declared to be at work (employed or self-employed) and in the relevant group of age and sex breakdowns who are <u>at risk of poverty</u> (i.e. with an equivalised disposable income below the risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income (after social transfers)).

Key indicator(s) included in the dataset: In-work at-risk-of-poverty rate (OMC), In-work poverty (by sex) (JAF)

Policy relevance:

Being in employment is an effective way to secure oneself against the risk of poverty and social exclusion. This is clearly borne out by the evidence and has been recognized by

successive European Councils where Member States highlighted the importance of promoting participation in employment as a means of preventing and alleviating poverty and social exclusion. Nevertheless, holding a job is not always sufficient to escape poverty. On average, employed women are less likely to secure a decent income than employed men, as indicated by their greater exposure to low pay and more broadly by the persistent gender pay gap and in turn more likely to have inferior pensions and other social protection entitlements.

Statistical population: All persons living in private households aged 16 and over who declared to be at work – however this indicator refers to individuals aged 18 and over. People with less than 7 months declared in the calendar of activities are excluded. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of total population of persons at work

Main concepts used:

Person at work is a person who reported data on his activity status for at least seven months of the reference year and which spent at least half of this year in work

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the 60 % of the Median Equivalised disposable Income after social transfers (MEDIAN20).

The most frequent Activity Status (ACTSTA) is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status (PL073 – PL090) is available.

Other concepts: Age

Calculation method: In work at-risk-of-poverty rate (IWARPT) broken down by group of activity status, age and sex ($IWARPT_{at_age/sex/wstatus}$) is calculated as the percentage of people classified as employed in each activity status group, age group and sex who are at-risk-of-poverty over the total population in that breakdown (i.e. age group, activity status group and sex). The weight variable used is the Personal cross – sectional weight (PB040).

$$IWARPT_{at_age/sex/wstatus} = \frac{\forall i_EQ_INC20 < ARPT 60_at_age/sex/wstatus}{\sum_{\forall i_at_age/sex/wstatus} PB040_{i}} \cdot 100$$

- Unless specified, at-risk-of-poverty rates are assumed to be 'after social transfers' (i.e. they include social benefits such as pensions and unemployment benefits).
- Unless specified, at-risk-of-poverty rates relate to the at-risk-of-poverty threshold that is calculated for the total population of a member state at 60% median equivalised disposable income level.
- The most frequent activity status is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for

which information on any status is available. Consequently, where an individual provides information on his activity status over 12 months, his most frequent activity status will be the status he declares to have occupied for at least 7 months. Individuals who have spent only half or less than the total number of declared months in any activity status are excluded from the computation. People with less than 7 months declared in the calendar of activities are excluded.

- This indicator measures activity status at the individual level.
- The most frequent activity status for each month is based on a self-assessment by the interviewees. Therefore, it may not be entirely consistent with the ILO coding that is applied in the European Union Labour Force Survey.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/from 18 to 24 years/from 18 to 64 years/from 25 to 54 years/from 55 to 64 years/65 years or over
- Activity status (WSTATUS): Employed persons/employees/employed persons except employees

Reference period: Survey year for sex. Age is the age of the respondent at the end of the income reference period. Income reference period for income variables and activity status – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: IW01.sas (VAR_ACTSTA.sas)

4.2.3.2 In-work at-risk-of-poverty rate by household type



Dataset: In-work at-risk-of-poverty rate by household type **Dissemination tree code:** <u>ilc_iw02</u> **Data source:** EU-SILC

Description: The percentage of persons in the total population who declared to be at work (employed or self-employed) and in the relevant household type breakdown who are <u>at risk</u> of poverty, i.e. with an equivalised disposable income below the risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income (after social transfers).

Key indicator(s) included in the dataset: In-work at-risk-of-poverty rate (OMC)

Policy relevance: Being in employment is an effective way to secure oneself against the risk of poverty and social exclusion. This is clearly borne out by the evidence and has been recognized by successive European Councils where Member States highlighted the importance of promoting participation in employment as a means of preventing and alleviating poverty and social exclusion.

Nevertheless, holding a job is not always sufficient to escape poverty. This might be the result of a particular family structure, for instance with a high dependent to earner ratio.

Statistical population: All persons living in private households aged 16 and over who declared to be at work – however this indicator refers to individuals aged 18 and over. People with less than 7 months declared in the calendar of activities are excluded. People with missing values for equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of total population of persons at work

Main concepts used:

Person at work is a person who reported data on his activity status for at least seven months of the reference year and which spent at least half of this year in work

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the 60 % of the Median Equivalised disposable Income after social transfers (MEDIAN20).

The most frequent Activity Status (ACTSTA) is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status (PL073 – PL090) is available

Other concepts: Household types (HHTYP)

Calculation method: In work at-risk-of-poverty rate (IWARPT) broken down by group of household type ($IWARPT_{at_HHTYP}$) is calculated as the percentage of people classified as employed in each household type group who are at-risk-of-poverty over the total population in that breakdown (i.e. household type group). The weight variable used is the Personal cross – sectional weight (PB040).

$$IWARPT_{at_HHTYP} = \frac{\forall i_EQ_INC20 < ARPT 60_at_HHTYP}{\sum_{\forall i_at_HHTYP} PB040_{i}} \cdot 100$$

- Unless specified, at-risk-of-poverty rates relate to the at-risk-of-poverty threshold that is calculated for the total population of a member state at 60% median equivalised disposable income level.
- The most frequent activity status is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. Consequently, where an individual

provides information on his activity status over 12 months, his most frequent activity status will be the status he declares to have occupied for at least 7 months. Individuals who have spent only half or less than the total number of declared months in any activity status are excluded from the computation. People with less than 7 months declared in the calendar of activities are excluded.

- This indicator measures activity status at the individual level.
- The most frequent activity status for each month is based on a self-assessment by the interviewees. Therefore, it may not be entirely consistent with the ILO coding that is applied in the European Union Labour Force Survey.
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household Type (HHTYP): Single person/single person with dependent children/two or more adults without dependent children/two or more adults with dependent children/households without dependent children/households with dependent children

Reference period: Age is the age of the respondent at the end of the income reference period – based on which we derive household type. Income reference period for income variables and activity status – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: IW02.sas (VAR_ACTSTA.sas)

4.2.3.3 In-work at-risk-of-poverty rate by work intensity of the household (population aged 18 to 59 years)



Dataset: In-work at-risk-of-poverty rate by work intensity of the household (population aged 18 to 59 years)

Dissemination tree code: <u>ilc_iw03</u> Data source: EU-SILC **Description:** The percentage of persons in the total population who declared to be at work (employed or self-employed) and in the relevant group of work intensity and household type breakdowns who are <u>at risk of poverty</u>, i.e. with an equivalised disposable income below the risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income (after social transfers).

Key indicator(s) included in the dataset: In-work at-risk-of-poverty rate (OMC)

Policy relevance:

Being in employment is an effective way to secure oneself against the risk of poverty and social exclusion. This is clearly borne out by the evidence and has been recognized by successive European Councils where Member States highlighted the importance of promoting participation in employment as a means of preventing and alleviating poverty and social exclusion. Nevertheless, holding a job is not always sufficient to escape poverty. Low earnings can be due to recurrent spells of unemployment, an inability to find fulltime work or low wage rate. Moreover, these factors can coincide.

Statistical population: Population aged 18 to 59 years living in private households who declared to be at work. People with less than 7 months declared in the calendar of activities are excluded. People with missing values for equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of total population of persons at work

Main concepts used:

Person at work is a person who reported data on his activity status for at least seven months of the reference year and which spent at least half of this year in work

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the 60 % of the Median Equivalised disposable Income after social transfers (MEDIAN20).

The most frequent Activity Status (ACTSTA) is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status (PL073 – PL090) is available

The **work intensity** of a household is the ratio of the total number of months that all working-age household members have worked during the income reference year and the total number of months the same household members theoretically could have worked in the same period (Work Intensity (WI)).

Other concepts: Household types (HHTYP)

Calculation method: In work at-risk-of-poverty rate (IWARPT) broken down by group of household type and work intensity ($IWARPT_{at_HHTYP/WI}$) is calculated as the percentage of people classified as employed in each household type and work intensity group who are at-risk-of-poverty over the total population in that breakdown (i.e. household type group, work intensity group). The weight variable used is the Personal cross – sectional weight (PB040).

$$IWARPT_{at_HHTYP/WI} = \frac{\forall i_EQ_INC20 < ARPT60_at_HHTYP/WI}{\sum_{\forall i_at_HHTYP/WI}} \cdot 100$$

- Unless specified, at-risk-of-poverty rates are assumed to be 'after social transfers' (i.e. they include social benefits such as pensions and unemployment benefits).
- Unless specified, at-risk-of-poverty rates relate to the at-risk-of-poverty threshold that is calculated for the total population of a member state at 60% median equivalised disposable income level.
- The most frequent activity status is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. Consequently, where an individual provides information on his activity status over 12 months, his most frequent activity status will be the status he declares to have occupied for at least 7 months. Individuals who have spent only half or less than the total number of declared months in any activity status are excluded from the computation. People with less than 7 months declared in the calendar of activities are excluded.
- This indicator measures activity status at the level of the household.
- The most frequent activity status for each month is based on a self-assessment by the interviewees. Therefore, it may not be entirely consistent with the ILO coding that is applied in the European Union Labour Force Survey.
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.
- For each working age person (aged 18 to 64) in the household that is not classified as a dependent child, two figures are computed, using the calendar of activities of the previous year:
 - c) the number of months in the previous year which the person has given information about his/her activity status (the 'workable' months)
 - d) the number of months in the previous year for which the person has been classified as 'at work'
- 'At work' comprises:
 - e) In paid employment, whether full-time or part-time
 - f) Including paid apprenticeship or training under special schemes related to employment

- g) In self-employment (with or without employees)
- h) Including unpaid work in family enterprise

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household Type (HHTYP): Total/households without dependent children/households with dependent children
- Work Intensity (WORKINT): Very high work intensity]0.85 1]/high work intensity]0.55 0.85]/ medium work intensity [0.45 0.55]/low work intensity]0.2 0.45]/ work intensity other than very low [0.2 -1]

Reference period: Age is the age of the respondent at the end of the income reference period – based on which we derive household type. Income reference period for income variables, activity status and work intensity – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: IW03.sas (VAR_LWI_WORK_INT.sas, VAR_ACTSTA.sas)

4.2.3.4 In-work at-risk-of-poverty rate by education level



Dataset: In-work at-risk-of-poverty rate by education level **Dissemination tree code:** <u>ilc_iw04</u> Data source: EU-SILC

Description: The percentage of persons in the total population who declared to be at work (employed or self-employed) and in the relevant group of education level breakdown who are <u>at risk of poverty</u>, i.e. with an equivalised disposable income below the risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income (after social transfers).

Key indicator(s) included in the dataset: In-work at-risk-of-poverty rate (OMC)

Policy relevance: Being in employment is an effective way to secure oneself against the risk of poverty and social exclusion. This is clearly borne out by the evidence and has been recognized by successive European Councils where Member States highlighted the importance of promoting participation in employment as a means of preventing and alleviating poverty and social exclusion.

Education or schooling increases productivity as it equips individuals' with skills and knowledge. As productivity is reflected in earnings and rates of labor market participation, education offers an important means of social mobility, particularly for the poor.

Widespread changes in the economy such as the emergence of high-level service sector jobs have opened up important opportunities, to those with the necessary levels of education. The level of education has a consistent and strong impact on the risk of poverty or social exclusion.

Statistical population: All persons living in private households aged 16 and over who declared to be at work – however this indicator refers to individuals aged 18 and over. People with less than 7 months declared in the calendar of activities are excluded. People with missing values for equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of total population of persons at work

Main concepts used:

Person at work is a person who reported data on his activity status for at least seven months of the reference year and which spent at least half of this year in work

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the 60 % of the Median Equivalised disposable Income after social transfers (MEDIAN20).

Education level (ISCED of a person is the highest level of an educational programme the person has successfully completed and the study field of this programme. The educational classification to be used is the International Standard Classification of Education (ISCED 1997) coded according to the seven ISCED-97 categories.

Other concepts: Activity Status (ACTSTA)

Calculation method: In work at-risk-of-poverty rate (IWARPT) broken down by group of education level ($IWARPT_{at_ISCED97}$) is calculated as the percentage of people classified as employed in each education level group who are at-risk-of-poverty over the total population in that breakdown (i.e. education level group). The weight variable used is the Personal cross – sectional weight (PB040).



- Unless specified, at-risk-of-poverty rates are assumed to be 'after social transfers' (i.e. they include social benefits such as pensions and unemployment benefits).
- Unless specified, at-risk-of-poverty rates relate to the at-risk-of-poverty threshold that is calculated for the total population of a member state at 60% median equivalised disposable income level.
- The most frequent activity status is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. Consequently, where an individual

provides information on his activity status over 12 months, his most frequent activity status will be the status he declares to have occupied for at least 7 months. Individuals who have spent only half or less than the total number of declared months in any activity status are excluded from the computation. People with less than 7 months declared in the calendar of activities are excluded.

- This indicator measures activity status at the individual level.
- The most frequent activity status for each month is based on a self-assessment by the interviewees. Therefore, it may not be entirely consistent with the ILO coding that is applied in the European Union Labour Force Survey.
- ISCED refers to the International Standard Classification of Education, developed by UNESCO. The version of the classification that is applied for this indicator follows the 1997 version of ISCED.
- In face of the diversity of national education systems (with regard to curricula, compulsory schooling ages, equivalences between qualifications-and other elements) one should be careful in making cross-country comparisons.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Education level (ISCED97): All ISCED 1997 levels/pre-primary, primary and lower secondary education (levels 0-2)/upper secondary and post-secondary non-tertiary education (levels 3 and 4) /first and second stage of tertiary education (levels 5 and 6))

Reference period: Income reference period for income variables and activity status – with the exceptions of Ireland (moving income reference period) and the UK (survey year). Current (i.e. survey year) for the highest education level attained.

SAS program: IW04.sas

4.2.3.5 In-work at-risk-of-poverty rate by type of contract



Dataset: In-work at-risk-of-poverty rate by type of contract **Dissemination tree code:** ilc_iw05 **Data source:** EU-SILC

Description: The percentage of persons in the total population who declared to be at work (employed or self-employed) and in the relevant group of sex and contract type breakdowns who are at risk of poverty, i.e. with an equivalised disposable income below the risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income (after social transfers).

Key indicator(s) included in the dataset: In-work at-risk-of-poverty rate (OMC)

Policy relevance: Being in employment is an effective way to secure oneself against the risk of poverty and social exclusion. This is clearly borne out by the evidence and has been recognized by successive European Councils where Member States highlighted the importance of promoting participation in employment as a means of preventing and alleviating poverty and social exclusion. Nevertheless, holding a job is not always sufficient to escape poverty. Low earnings can be due to recurrent spells of unemployment, an inability to find fulltime work or low wage rate. Moreover, these factors can coincide.

Statistical population: All persons living in private households aged 16 and over who declared to be at work – however this indicator refers to individuals aged 18 and over. People with less than 7 months declared in the calendar of activities are excluded. People with less than 7 months declared in the calendar of activities are excluded. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of total population of persons at work

Main concepts used:

Person at work is a person who reported data on his activity status for at least seven months of the reference year and which spent at least half of this year in work

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the 60 % of the Median Equivalised disposable Income after social transfers (MEDIAN20).

Type of contract (PL140) refers to the main job (current if PL031=1, 2, 3 or 4 and last otherwise) of the person. If multiple jobs are held or were held, the main job should be the one with the greatest number of hours usually worked.

Other concepts: Activity Status (ACTSTA)

Calculation method: In work at-risk-of-poverty rate (IWARPT) broken down by group of contract type and sex ($IWARPT_{at_SEX/BREAK_IL}$) is calculated as the percentage of people classified as employed in each contract type group (BREAK_IL) and sex who are at-risk-of-poverty over the total population in that breakdown (i.e. contract type group and sex). The weight variable used is the Personal cross – sectional weight (PB040).

$$IWARPT_{at_SEX / BREAK_IL} = \frac{\forall i_EQ_INC20 < ARPT 60_at_SEX / BREAK_IL}{\sum_{\forall i_at_SEX / BREAK_IL}} \cdot 100$$

- Unless specified, at-risk-of-poverty rates are assumed to be 'after social transfers' (i.e. they include social benefits such as pensions and unemployment benefits).
- Unless specified, at-risk-of-poverty rates relate to the at-risk-of-poverty threshold

that is calculated for the total population of a member state at 60% median equivalised disposable income level.

- The most frequent activity status is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. Consequently, where an individual provides information on his activity status over 12 months, his most frequent activity status will be the status he declares to have occupied for at least 7 months. Individuals who have spent only half or less than the total number of declared months in any activity status are excluded from the computation. People with less than 7 months declared in the calendar of activities are excluded.
- This indicator measures activity status at the individual level.
- The most frequent activity status for each month is based on a self-assessment by the interviewees. Therefore, it may not be entirely consistent with the ILO coding that is applied in the European Union Labour Force Survey.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Contract Type (BREAL_IL): Permanent work /temporary work

Reference period: Survey year for sex and type of contract. Income reference period for income variables and activity status – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: IW05.sas

4.2.3.6 In-work at-risk-of-poverty rate by months worked



Dataset: In-work at-risk-of-poverty rate by months worked **Dissemination tree code:** ilc_iw06 **Data source:** EU-SILC

Description: The percentage of persons in the total population who declared to be at work (employed or self-employed) and in the relevant 'worked months' group breakdown who are <u>at risk of poverty</u>, i.e. with an equivalised disposable income below the risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income (after social transfers).

Key indicator(s) included in the dataset: In-work at-risk-of-poverty rate (OMC)

Policy relevance: Being in employment is an effective way to secure oneself against the risk of poverty and social exclusion. This is clearly borne out by the evidence and has been recognized by successive European Councils where Member States highlighted the importance of promoting participation in employment as a means of preventing and alleviating poverty and social exclusion. Nevertheless, holding a job is not always sufficient to escape poverty. Low earnings can be due to recurrent spells of unemployment, an inability to find fulltime work or low wage rate. Moreover, these factors can coincide.

Statistical population: All persons living in private households aged 16 and over and have spent time during the last year working full or part time either as employee or self-employee. People with less than 7 months declared in the calendar of activities are excluded. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of total population of persons at work

Main concepts used:

Person at work is a person who reported data on his activity status for at least seven months of the reference year and which spent at least half of this year in work

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the 60 % of the Median Equivalised disposable Income after social transfers (MEDIAN20).

Worked Months is the total number of months that a person spent a) at full-time work as employee, b) at part-time work as employee, c) at full-time work as self-employed (including family worker), d) at part-time work as self-employed (including family worker) during the income reference period.

Other concepts: Activity Status (ACTSTA)

Calculation method: In work at-risk-of-poverty rate (IWARPR) broken down by group of worked months ($IWARPT_{at_BREAK_IL}$) is calculated as the percentage of people classified as employed in each worked months group (BREAK_IL) who are at-risk-of-poverty over the total population in that breakdown (i.e. worked months group). The weight variable used is the Personal cross – sectional weight (PB040).

$$IWARPT_{at_BREAK_IL} = \frac{\forall i_EQ_INC20 < ARPT 60_at_BREAK_IL}{\sum_{\forall i_at_BREAK_IL} PB040_{i}} \cdot 100$$

- Unless specified, at-risk-of-poverty rates are assumed to be 'after social transfers' (i.e. they include social benefits such as pensions and unemployment benefits).
- Unless specified, at-risk-of-poverty rates relate to the at-risk-of-poverty threshold that is calculated for the total population of a member state at 60% median equivalised disposable income level.

- The most frequent activity status is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. Consequently, where an individual provides information on his activity status over 12 months, his most frequent activity status will be the status he declares to have occupied for at least 7 months. Individuals who have spent only half or less than the total number of declared months in any activity status are excluded from the computation. People with less than 7 months declared in the calendar of activities are excluded.
- This indicator measures activity status at the individual level.
- The most frequent activity status for each month is based on a self-assessment by the interviewees. Therefore, it may not be entirely consistent with the ILO coding that is applied in the European Union Labour Force Survey.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Worked Months (BREAK_IL): Working full year/working less than full year

Reference period: Income reference period for income variables, activity status and number of months worked – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: IW06.sas

4.2.3.7 In-work at-risk-of-poverty rate by full-/part-time work



Dataset: In-work at-risk-of-poverty rate by full-/part-time work **Dissemination tree code:** <u>ilc_iw07</u> **Data source:** EU-SILC

Description: The percentage of persons in the total population who declared to be at work (employed or self-employed) and in the relevant group of working status breakdown who are <u>at risk of poverty</u>, i.e. with an equivalised disposable income below the risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income (after social transfers).

Key indicator(s) included in the dataset: In-work at-risk-of-poverty rate (OMC)

Policy relevance: Being in employment is an effective way to secure oneself against the risk of poverty and social exclusion. This is clearly borne out by the evidence and has been recognized by successive European Councils where Member States highlighted the

importance of promoting participation in employment as a means of preventing and alleviating poverty and social exclusion. Nevertheless, holding a job is not always sufficient to escape poverty. Low earnings can be due to recurrent spells of unemployment, an inability to find fulltime work or low wage rate. Moreover, these factors can coincide.

Statistical population: All persons living in private households aged 16 and over and have spent time during the last year working full or part time as employee or self-employee. People with less than 7 months declared in the calendar of activities are excluded. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of total population of persons at work

Main concepts used:

Person at work is a person who reported data on his activity status for at least seven months of the reference year and which spent at least half of this year in work

Persons at-risk-poverty are those with an Equivalised disposable Income (EQ_INC) (after social transfers) (EQ_INC20) below the 60 % of the Median Equivalised disposable Income after social transfers (MEDIAN20).

Working status (BREAK_IL): refers to the main EU – SILC variable of self defined economic status (PL031) Full time work corresponds to PL031=1 or 3 whereas for part time work, PL031 = 2 or 4.

Other concepts: Activity Status (ACTSTA)

Calculation method: In work at-risk-of-poverty rate (IWARPRT) broken down by group of working status ($IWARPT_{at_BREAK_IL}$) is calculated as the percentage of people classified as employed in each working status group (BREAK_IL) who are at-risk-of-poverty over the total population in that breakdown (i.e. working status group). The weight variable used is the Personal cross – sectional weight (PB040).

$$IWARPRT_{at_BREAK_IL} = \frac{\forall i_EQ_INC20 < ARPT 60_at_BREAK_IL}{\sum_{\forall i_at_BREAK_IL} PB040_{i}} \cdot 100$$

- Unless specified, at-risk-of-poverty rates are assumed to be 'after social transfers' (i.e. they include social benefits such as pensions and unemployment benefits).
- Unless specified, at-risk-of-poverty rates relate to the at-risk-of-poverty threshold that is calculated for the total population of a member state at 60% median equivalised disposable income level.
- The most frequent activity status is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. Consequently, where an individual provides information on his activity status over 12 months, his most frequent activity status will be the status he declares to have occupied for at least 7 months.

Individuals who have spent only half or less than the total number of declared months in any activity status are excluded from the computation. People with less than 7 months declared in the calendar of activities are excluded.

- This indicator measures activity status at the individual level.
- The most frequent activity status for each month is based on a self-assessment by the interviewees. Therefore, it may not be entirely consistent with the ILO coding that is applied in the European Union Labour Force Survey.
- The full-time/part time breakdown is also based on self-assessment.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Working Status (BREAL_IL): Working full time/working part time

Reference period: Income reference period for income variables, activity status and number of months worked – with the exceptions of Ireland (moving income reference period) and the UK (survey year

SAS program: IW07.sas

4.2.4 Distribution of income (ilc_di)

4.2.4.1 Distribution of income by quantiles



Dataset: Distribution of income by quantiles **Dissemination tree code:** <u>ilc_di01</u> **Data source:** EU-SILC

Description: This dataset describes the following two indicators:

- Share of national disposable income in the relevant quintile as percentage of total national disposable income (SHARE), and
- The top cut-off point of the respective quantile (TC).

Both indicators are expressed in National Currency, Euros and Purchasing Power Parities

Key indicator(s) included in the dataset: --

Policy relevance:

Disposable income is taken into account in a broad range of indicators. To the extent that people belonging in different equivalised income quintiles have different poverty risks, the overall distribution of equivalised disposable income provides valuable background information. Favourable living conditions depend on a wide range of factors, which may be divided into those that are income-related and those that are not. Income distribution within

a country provides a picture of inequalities: on the one hand, inequalities may create incentives for people to improve their situation through work, innovation or acquiring new skills, while on the other, crime, poverty and social exclusion are often seen as being linked to such income inequalities.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage for SHARE and Euro (from 1.1.1999) – ECU (up to 31.12.1998)/purchasing power standard/national currency (including 'euro fixed' series for euro area countries) for top cut-off point (TC)

Main concepts used: --

Other concepts: Equivalised disposable Income (EQ_INC), Inter – Quantile interval, Quantile Income

Calculation method: This dataset uses the following two indicators to describe the distribution of income (DISINC) broken down by quantile:

A. Top cut – off point $(TCxx_{at_quantile})$ of the equivalised disposable income after social transfers (EQ_INC20) of quantile group:

$$TCxx_{at_quantile} = EQ_INC20xx_{at_quantile}$$

B. Share of national equivalised income $(SHARExx_{at_quint\,ile})$ in each equivalised disposable income quintile group:

$$SHARExx_{at_quaint\,ile} = \frac{EQ_INC20xx_{at_quint\,ile}}{EQ_INC20xx}$$

,where XX denotes the CURRENCY and takes the values EUR, PPS and NAC.

Methodological issues: --

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Quantile: First quartile/second quartile/third quartile/fourth quartile/first quintile/second quintile/third quintile/fourth quintile/fifth quintile/first decile/second decile/third decile/fourth decile/fifth decile/sixth decile/ seventh decile/eighth decile/ninth decile/ tenth decile/ first percentile, second percentile, third percentile, percentile, fifth percentile /ninety-fifth percentile/ninety-sixth fourth percentile/ninety-seventh percentile/ninety-eighth percentile/ninety-ninth percentile/hundredth percentile

Reference period: Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: DI01.sas

4.2.4.2 Distribution of income by different income groups



Dataset: Distribution of income by different income groups **Dissemination tree code:** <u>ilc_di02</u> Data source: EU-SILC

Description: This dataset describes the following two indicators:

- The weighted mean of the distribution of the equivalised net income distribution (MEI_E) in the respective income group
- The weighted median of the distribution of the equivalised net income (MED_E) in the respective income group

Both indicators are expressed in National Currency, Euros and Purchasing Power Parities

Key indicator(s) included in the dataset: --

Policy relevance: Poverty is measured by using relative income poverty lines. This involves working out average or median equivalised disposable household incomes in a country. A poverty line is then set which is a percentage of that average or median income. Commonly these poverty lines range from 40-70% of the mean or median equivalised disposable household income. This gives one an overall picture of the risk of poverty rate but the figures can also be broken down by age, sex, household type and employment status to give a more detailed picture of who is at greatest risk. However policymakers in general cannot combat poverty without analysing inequalities within society, whether they are economic in nature or social. This indicator is focused on economic inequality, which becomes particularly important for estimating relative poverty, because the distribution of economic resources may have a direct bearing on the extent and depth of poverty.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Euro (from 1.1.1999) – ECU (up to 31.12.1998)/purchasing power standard/national currency (including 'euro fixed' series for euro area countries)

Main concepts used: --

Other concepts: Equivalised disposable Income (EQ_INC)

Calculation method: This dataset uses the following two indicators to describe the distribution of income broken down by income group. The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

A. Weighted mean equivalised disposable income after social transfers (EQ_INC20) by income group:

$$MEI_Exx_{at_INCGRP} = \frac{\sum_{\forall i_at_INCGRP} EQ_INC20xx_i \cdot RB050a_i}{\sum_{\forall i_at_INCGRP} RB050a_i}$$

B. Weighted median equivalised disposable income after social transfers (EQ_INC20) by income group:

$$MED_Exx_{at_INCGRP} = \begin{cases} \frac{1}{2} (EQ_INC20xx_{j_at_INCGRP} + EQ_INC20xx_{j+1_at_INCGRP}), & if \sum_{i=1}^{j} RB050a_i = \frac{1}{2} \sum_{i=1}^{n} RB050a_i \\ EQ_INC20xx_{j+1_at_INCGRP}, & if \sum_{i=1}^{j} RB050a_i < \frac{1}{2} \sum_{i=1}^{n} RB050a_i < \sum_{i=1}^{j+1} RB050a_i \end{cases}$$

, where XX denotes the CURRENCY and takes the values EUR, PPS and NAC.

Methodological issues: --

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Income Group (INCGRP): Below 40% of median equivalised income/above 40% of median equivalised income/below 50% of median equivalised income/above 50% of median equivalised income/below 60% of median equivalised income/above 60% of median equivalised income/below 70% of median equivalised income/above 70% of median equivalised income/below 40% of mean equivalised income/above 40% of mean equivalised income/below 50% of mean equivalised income/above 50% of mean equivalised income/below 50% of mean equivalised income/above 50% of mean equivalised income/below 60% of mean equivalised income/above 60% of mean equivalised income/below 60% of mean equivalised income/above 60% of mean equivalised income/below 60% of mean equivalised income/above 60% of mean equivalised income/below 60% of mean equivalised income/above 60% of

Reference period: Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: di02.sas

4.2.4.3 Mean and median income by age and sex



Dataset: Mean and median income by age and sex **Dissemination tree code:** <u>ilc di03</u>
Data source: EU-SILC

Description: This dataset describes the following two indicators:

- The weighted mean of the distribution of the equivalised net income distribution (MEI_E) in the respective age, sex group
- The weighted median of the distribution of the equivalised net income (MED_E) in the respective age, sex group

Both indicators are expressed in National Currency, Euros and Purchasing Power Parities

Key indicator(s) included in the dataset: --

Policy relevance: Disposable income is taken into account in a broad range of indicators. To the extent that people belonging in different equivalised income quintiles have different poverty risks, the overall distribution of equivalised disposable income provides valuable background information. Favourable living conditions depend on a wide range of factors, which may be divided into those that are income-related and those that are not. Income distribution within a country provides a picture of inequalities: on the one hand, inequalities may create incentives for people to improve their situation through work, innovation or acquiring new skills, while on the other, crime, poverty and social exclusion are often seen as being linked to such income inequalities.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Euro (from 1.1.1999) – ECU (up to 31.12.1998)/purchasing power standard/national currency (including 'euro fixed' series for euro area countries)

Main concepts used: --

Other concepts: Equivalised disposable Income (EQ_INC), Age

Calculation method: This dataset uses the following two indicators to describe the distribution of income broken down by age and sex. The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

A. Weighted mean equivalised disposable income after social transfers (EQ_INC20) by age and sex:

$$MEI_Exx_{at_AGE_SEX} = \frac{\sum_{\forall i_at_AGE_SEX} EQ_INC20xx_i \cdot RB050a_i}{\sum_{\forall i_at_AGE_SEX} RB050a_i}$$

B. Weighted median equivalised disposable income after social transfers (EQ_INC20) by age and sex:

$$MED_Exx_{at_AGE_SEX} = \begin{cases} \frac{1}{2}(EQ_INC20xx_{j_at_AGE_SEX} + EQ_INC20xx_{j+1_at_INCGRP}), & if \sum_{i=1}^{j}RB050a_i = \frac{1}{2}\sum_{i=1}^{n}RB050a_i = \frac{1}{2}\sum_{i=1$$

, where XX denotes the UNIT (CURRENCY) and takes the values EUR, PPS and NAC.

Methodological issues: --

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/less than 6 years/from 6 to 10 years/from 6 to 11 years/from 11 to 15 years/from 12 to 17 years/less than 16 years/ from 16 to 24 years/ from 16 to 64 years/ 16 years or over/less than 18 years/from 18 to 24 years/from 18 to 64 years/18 years or over/from 25 to 49 years/from 25 to 54 years/from 50 to 64 years/from 55 to 64 years/less than 60 years/ 60 years or over/less than 65 years/from 65 to 74 years/65 years or over/less than 75 years/75 years or over

Reference period: Survey year for sex. Age is the age of the respondent at the end of the income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: DI03.sas

4.2.4.4 Mean and median income by household type



Dataset: Mean and median income by household type **Dissemination tree code:** ilc_di04 **Data source:** EU-SILC

Description: This dataset describes the following two indicators:

- The weighted mean of the distribution of the equivalised net income distribution (MEI_E) in the respective household type group
- The weighted median of the distribution of the equivalised net income (MED_E) in the respective household type group

Both indicators are expressed in National Currency, Euros and Purchasing Power Parities

Key indicator(s) included in the dataset: --

Policy relevance: Disposable income is taken into account in a broad range of indicators. To the extent that people belonging in different equivalised income quintiles have different poverty risks, the overall distribution of equivalised disposable income provides valuable background information. Favourable living conditions depend on a wide range of factors, which may be divided into those that are income-related and those that are not. Income distribution within a country provides a picture of inequalities: on the one hand, inequalities may create incentives for people to improve their situation through work, innovation or acquiring new skills, while on the other, crime, poverty and social exclusion are often seen as being linked to such income inequalities.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Euro (from 1.1.1999) – ECU (up to 31.12.1998)/purchasing power standard/national currency (including 'euro fixed' series for euro area countries)

Main concepts used: --

Other concepts: Equivalised disposable Income (EQ_INC), Household types (HHTYP)

Calculation method: This dataset uses the following two indicators to describe the distribution of income broken down by household type. The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

A. Weighted mean equivalised disposable income after social transfers (EQ_INC20) by household type:

$$MEI_Exx_{at_HHTYP} = \frac{\sum_{\forall i_at_HHTYP} EQ_INC20xx_i \cdot RB050a_i}{\sum_{\forall i_at_HHTYP} RB050a_i}$$

B. Weighted median equivalised disposable income after social transfers (EQ_INC20) by household type:

$$MED_Exx_{at_HHTYP} = \begin{cases} \frac{1}{2} (EQ_INC20xx_{j_at_HHTYP} + EQ_INC20xx_{j+1_at_HHTYP}), & if \sum_{i=1}^{j} RB050a_{i} = \frac{1}{2} \sum_{i=1}^{n} RB050a_{i} = \frac{1}{2} \sum_{i=1$$

, where XX denotes the UNIT (CURRENCY) and takes the values EUR, PPS and NAC.

Methodological issues:

- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about

the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.

• The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household Type (HHTYP): Total/single person/one adult younger than 64 years/one adult younger than 65 years/one adult older than 65 years/single person with dependent children/single female/single male/two adults/two adults younger than 65 years/two adults, at least one aged 65 years and over/two adults with one dependent child/two adults with two dependent children/two adults with three or more dependent children/two or more adults without dependent children/two or more adults with dependent children/three or more adults/three or more adults with dependent children/households without dependent children/households with dependent children

Reference period: Age is the age of the respondent at the end of the income reference period – based on which we derive household type. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: DI04.sas

4.2.4.5 Mean and median income by most frequent activity status



Dataset: Mean and median income by most frequent activity status **Dissemination tree code:** <u>ilc_di05</u> **Data source:** EU-SILC

Description: This dataset describes the following two indicators:

- The weighted mean of the distribution of the equivalised net income distribution (MEI_E) in the respective age, sex and activity status group
- The weighted median of the distribution of the equivalised net income (MED_E) in the respective age, sex and activity status group

Both indicators are expressed in National Currency, Euros and Purchasing Power Parities

Key indicator(s) included in the dataset: --

Policy relevance: Disposable income is taken into account in a broad range of indicators. To the extent that people belonging in different equivalised income quintiles have different poverty risks, the overall distribution of equivalised disposable income provides valuable background information. Favourable living conditions depend on a wide range of factors, which may be divided into those that are income-related and those that are not. Income distribution within a country provides a picture of inequalities: on the one hand, inequalities may create incentives for people to improve their situation through work, innovation or acquiring new skills, while on the other, crime, poverty and social exclusion are often seen as being linked to such income inequalities.

Statistical population: All people aged 16 years or over living in private households. People with missing values for equivalised disposable income or activity status are excluded. People with less than 7 months declared in the calendar of activities are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Euro (from 1.1.1999) – ECU (up to 31.12.1998)/purchasing power standard/national currency (including 'euro fixed' series for euro area countries)

Main concepts used:

The most frequent Activity Status (ACTSTA) is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status (PL073 – PL090) is available.

Other concepts: Age, Equivalised disposable Income (EQ_INC)

Calculation method: This dataset uses the following two indicators to describe the distribution of income broken down by age, sex and most frequent activity status (WSTATUS). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

A. Weighted mean equivalised disposable income after social transfers (EQ_INC20) by age, sex and most frequent activity status:

$$MEI_Exx_{at_AGE_SEX_WSTATUS} = \frac{\forall i_at_AGE_SEX_WSTATUS}{\sum_{\forall i_at_AGE_SEX_WSTATUS}} EQ_INC20xx_i \cdot RB050a_i$$

B. Weighted median equivalised disposable income after social transfers (EQ_INC20) by age, sex and most frequent activity status:

$$MED_Exx_{at_AGE_SEX_WSTATUS} = \begin{cases} \frac{1}{2} (EQ_INC20xx_{j_at_AGE_SEX_WSTATUS} + EQ_INC20xx_{j+1_at_AGE_SEX_WSTATUS}), & if \sum_{i=1}^{j} RB050a_i = \frac{1}{2} \sum_{i=1}^{n} RB050a_i = \frac{1}{2} \sum$$

, where XX denotes the UNIT (CURRENCY) and takes the values EUR, PPS and NAC.

Methodological issues:

- The most frequent activity status is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. Consequently, where an individual provides information on his activity status over 12 months, his most frequent activity status will be the status he declares to have occupied for at least 7 months. Individuals who have spent only half or less than the total number of declared months in any activity status are excluded from the computation. People with less than 7 months declared in the calendar of activities are excluded.
- The activity statuses cannot be considered as a perfectly hierarchical structure. Due to the construction of the activity statuses, the subset of the total population 'employed persons' will contain more than the sum of 'employees' and 'employed persons except employees'. The same holds for the subset 'not employed persons'. That is, the breakdowns of 'employed persons' and 'not employed persons' are not exhaustive. This is the case because persons who spend less than half of the reported time in two or more breakdowns of 'employed persons' or 'not employed persons' may qualify as being 'employed person' or 'not employed person' but not any of the breakdowns.
- The most frequent activity status for each month is based on a self-assessment by the interviewees. Therefore, it may not be entirely consistent with the ILO coding that is applied in the European Union Labour Force Survey.
- This indicator measures activity status at the individual level.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: From 16 to 64 years/16 years or over/from 18 to 64 years/18 years or over/65 years or over
- Activity Status (WSTATUS): Population/employed persons/employees/employed persons except employees/not employed persons/unemployed persons/retired persons/other inactive persons

Reference period: Survey year for sex. Age is the age of the respondent at the end of the income reference period. Income reference period for income variables and activity status – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: DI05.sas

4.2.4.6 Mean and median income by work intensity of the household (population aged 0 to 59 years)



Dataset: Mean and median income by work intensity of the household (population aged 0 to 59 years)

Dissemination tree code: <u>ilc_di07</u> **Data source**: EU-SILC

Description: This datasets describes the following two indicators:

- The weighted mean of the distribution of the equivalised net income distribution (MEI_E) in the respective age, sex, household type and work intensity group
- The weighted median of the distribution of the equivalised net income (MED_E) in the respective age, sex, household type and work intensity group

Both indicators are expressed in National Currency, Euros and Purchasing Power Parities

Key indicator(s) included in the dataset: --

Policy relevance: Disposable income is taken into account in a broad range of indicators. To the extent that people belonging in different equivalised income quintiles have different poverty risks, the overall distribution of equivalised disposable income provides valuable background information. Favourable living conditions depend on a wide range of factors, which may be divided into those that are income-related and those that are not. Income distribution within a country provides a picture of inequalities: on the one hand, inequalities may create incentives for people to improve their situation through work, innovation or acquiring new skills, while on the other, crime, poverty and social exclusion are often seen as being linked to such income inequalities.

Statistical population: All persons living in private households aged 0 to 59 years. People with missing values for equivalised disposable income, work intensity or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Euro (from 1.1.1999) – ECU (up to 31.12.1998)/purchasing power standard/national currency (including 'euro fixed' series for euro area countries)

Main concepts used:

The Work Intensity (WI) of the household refers to the number of months that all working age household members have been working during the income reference year as a proportion of the total number of months that could theoretically be worked within the household.

Other concepts: Equivalised disposable Income (EQ_INC), Household types (HHTYP), Age

Calculation method: This dataset uses the following two indicators to describe the distribution of income broken down by age, sex, work intensity (WORKINT) and household type (HHTYP). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

A. Weighted mean equivalised disposable income after social transfers (EQ_INC20) by age, sex, work intensity and household type:

$$MEI_Exx_{at_AGE_SEX_HHTYP_WORKINT} = \frac{\sum_{i_at_AGE_SEX_HHTYP_WORKINT} EQ_INC20xx_i \cdot RB050a_i}{\sum_{i_at_AGE_SEX_HHTYP_WORKINT} RB050a_i}$$

B. Weighted median equivalised disposable income after social transfers (EQ_INC20) by age, sex, work intensity and household type:

$$MED_Exx_{aa_AGE_SEX_HHTYP_WORKINT} = \begin{cases} \frac{1}{2}(EQ_INC20xx_{j_aa_AGE_SEX_HHTYP_WORKINT} + EQ_INC20xx_{j+1_aa_AGE_SEX_HHTYP_WORKINT}), & if \sum_{i=1}^{j} RB050a_i = \frac{1}{2}\sum_{i=1}^{n} RB05$$

, where XX denotes the UNIT (CURRENCY) and takes the values EUR, PPS and NAC.

Methodological issues:

- For each working age person (aged 18 to 64) in the household that is not classified as a dependent child, two figures are computed, using the calendar of activities of the previous year:
 - e) the number of months in the previous year which the person has given information about his/her activity status (the 'workable' months)
 - f) the number of months in the previous year for which the person has been classified as 'at work'
- 'At work' comprises:
 - i) In paid employment, whether full-time or part-time
 - j) Including paid apprenticeship or training under special schemes related to employment
 - k) In self-employment (with or without employees)
 - 1) Including unpaid work in family enterprise
- This indicator measures work intensity at the household level

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female

- Age: Less than 18 years/from 18 to 59 years/less than 60 years
- Household Type (HHTYP): Total/households without dependent children/households with dependent children
- Work Intensity (WORKINT): Very high work intensity]0.85 1]/high work intensity]0.55 0.85]/medium work intensity [0.45 0.55]/low work intensity]0.2 0.45[/very low work intensity [0 0.2]

Reference period: Survey year for sex. Age is the age of the respondent at the end of the income reference period - based on which we derive household type. Income reference period for income variables and work intensity – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: DI07.sas

4.2.4.7 Mean and median income by education level



Dataset: Mean and median income by education level **Dissemination tree code:** <u>ilc_di08</u> **Data source:** EU-SILC

Description: This datasets describes the following two indicators:

- The weighted mean of the distribution of the equivalised net income distribution (MEI_E) in the respective age, sex and education level group
- The weighted median of the distribution of the equivalised net income (MED_E) in the respective age, sex and education level group

Both indicators are expressed in National Currency, Euros and Purchasing Power Parities

Key indicator(s) included in the dataset: --

Policy relevance: Disposable income is taken into account in a broad range of indicators. To the extent that people belonging in different equivalised income quintiles have different poverty risks, the overall distribution of equivalised disposable income provides valuable background information. Favourable living conditions depend on a wide range of factors, which may be divided into those that are income-related and those that are not. Income distribution within a country provides a picture of inequalities: on the one hand, inequalities may create incentives for people to improve their situation through work, innovation or acquiring new skills, while on the other, crime, poverty and social exclusion are often seen as being linked to such income inequalities.

Statistical population: All people aged 18 years or over living in private households. People with missing values for equivalised disposable income or education level are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Euro (from 1.1.1999) – ECU (up to 31.12.1998)/purchasing power standard/national currency (including 'euro fixed' series for euro area countries)

Main concepts used:

Educational level (attainment) of a person is the highest level of an educational programme the person has successfully completed and the study field of this programme. The educational classification to be used is the International Standard Classification of Education (ISCED 1997) coded according to the seven ISCED-97 categories.

Other concepts: Equivalised disposable Income (EQ_INC), Age

Calculation method: This dataset uses the following two indicators to describe the distribution of income broken down by age, sex and education level. The weight variable used is personal cross sectional weight PB040.

A. Weighted mean equivalised disposable income after social transfers (EQ_INC20) by age, sex and education level:

$$MEI_Exx_{at_AGE_SEX_ISCED97} = \frac{\forall i_at_AGE_SEX_ISCED97}{\sum_{\forall i_at_AGE_SEX_ISCED97} PB040_{i}}$$

B. Weighted median equivalised disposable income after social transfers (EQ_INC20) by age, sex and education level:

$$MED_Exx_{at_AGE_SEX_ISCED97} = \begin{cases} \frac{1}{2}(EQ_INC20xx_{j_at_AGE_SEX_ISCED97} + EQ_INC20xx_{j+1_at_AGE_SEX_ISCED97}), & if \sum_{i=1}^{j}PB040_i = \frac{1}{2}\sum_{i=1}^{n}PB040_i =$$

, where XX denotes the UNIT (CURRENCY) and takes the values EUR, PPS and NAC.

Methodological issues:

- ISCED refers to the International Standard Classification of Education, developed by UNESCO. The version of the classification that is applied for this indicator follows the 1997 version of ISCED.
- In face of the diversity of national education systems (with regard to curricula, compulsory schooling ages, equivalences between qualifications-and other elements) one should be careful in making cross-country comparisons.

Breakdowns: The dataset provides data for the whole population and also broken down by

• Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)

- Sex (SEX): Total/Male/Female
- Age: From 18 to 64 years/18 years or over/65 years or over
- Education level (ISCED97): All ISCED 1997 levels/pre-primary, primary and lower secondary education (levels 0-2)/upper secondary and post-secondary non-tertiary education (levels 3 and 4) /first and second stage of tertiary education (levels 5 and

[•] Time

6))

Reference period: Survey year for sex and education level. Age is the age of the respondent at the end of the income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: DI08.sas

4.2.4.8 Mean and median income by tenure status



Dataset: Mean and median income by tenure status **Dissemination tree code:** <u>ilc_di09</u> **Data source:** EU-SILC

Description: This datasets describes the following two indicators:

- The weighted mean of the distribution of the equivalised net income distribution (MEI_E) in the respective age, sex and tenure status group
- The weighted median of the distribution of the equivalised net income (MED_E) in the respective age, sex and tenure status group

Both indicators are expressed in National Currency, Euros and Purchasing Power Parities

Key indicator(s) included in the dataset: --

Policy relevance: Disposable income is taken into account in a broad range of indicators. To the extent that people belonging in different equivalised income quintiles have different poverty risks, the overall distribution of equivalised disposable income provides valuable background information. Favourable living conditions depend on a wide range of factors, which may be divided into those that are income-related and those that are not. Income distribution within a country provides a picture of inequalities: on the one hand, inequalities may create incentives for people to improve their situation through work, innovation or acquiring new skills, while on the other, crime, poverty and social exclusion are often seen as being linked to such income inequalities.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income or tenure status are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Euro (from 1.1.1999) – ECU (up to 31.12.1998)/purchasing power standard/national currency (including 'euro fixed' series for euro area countries)

Main concepts used:

(Accommodation) tenure status is defined a) owner (or occupied rent-free) and b) tenant at

prevailing market rent or at reduced rate (Tenure status (TENSTA)).

The variables used are HH020/HH021 in combination with HY100G/HY100N for distinguishing between owners with and without mortgage.

Other concepts: Equivalised disposable Income (EQ_INC), Age

Calculation method: This dataset uses the following two indicators to describe the distribution of income broken down by age, sex and tenure status (TENURE). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

A. Weighted mean equivalised disposable income after social transfers (EQ_INC20) by age, sex and tenure status:

$$MEI_Exx_{at_AGE_SEX_TENURE} = \frac{\forall i_at_AGE_SEX_TENURE}{\sum_{i_at_AGE_SEX_TENURE}} EQ_INC20xx_i \cdot RB050a_i$$

B. Weighted median equivalised disposable income after social transfers (EQ_INC20) by age, sex and tenure status:

$$MED_Exx_{ai_AGE_SEX_TENURE} = \begin{cases} \frac{1}{2} (EQ_INC20xx_{j_ai_AGE_SEX_TENURE} + EQ_INC20xx_{j+1_ai_AGE_SEX_TENURE}), & if \sum_{i=1}^{j} RB050a_i = \frac{1}{2} \sum_{i=1}^{n} RB050a_i = \frac{1}{2} \sum_{i$$

, where XX denotes the UNIT (CURRENCY) and takes the values EUR, PPS and NAC.

Methodological issues:

• The accommodation tenure status is assigned to each household member.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/less than 18 years/from 18 to 64 years/18 years or over/60 years or over/65 years or over/75 years or over
- Tenure Status (TENURE): Total/owner/tenant

Reference period: Survey year for sex and tenure status. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: DI09.sas

4.2.4.9 Mean and median income by ability to make ends meet



Dataset: Mean and median income by ability to make ends meet **Dissemination tree code:** <u>ilc_di10</u> **Data source:** EU-SILC

Description: This datasets describes the following two indicators:

- The weighted mean of the distribution of the equivalised net income distribution (MEI_E) in the respective group of the subjective non-monetary indicator defining the ability to make ends meet
- The weighted median of the distribution of the equivalised net income (MED_E) in the respective group of the subjective non-monetary indicator defining the ability to make ends meet

Both indicators are expressed in National Currency, Euros and Purchasing Power Parities

Key indicator(s) included in the dataset: --

Policy relevance: Disposable income is taken into account in a broad range of indicators. To the extent that people belonging in different equivalised income quintiles have different poverty risks, the overall distribution of equivalised disposable income provides valuable background information. Favourable living conditions depend on a wide range of factors, which may be divided into those that are income-related and those that are not. Income distribution within a country provides a picture of inequalities: on the one hand, inequalities may create incentives for people to improve their situation through work, innovation or acquiring new skills, while on the other, crime, poverty and social exclusion are often seen as being linked to such income inequalities.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income or ability to make ends meet (EU – SILC variable HS120) are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Euro (from 1.1.1999) – ECU (up to 31.12.1998)/purchasing power standard/national currency (including 'euro fixed' series for euro area countries)/income index (compare to national median)/income index (compared to national mean)

Main concepts used:

The ability to make ends meet (HS120) aims to assess the respondent's feeling about the level of difficulty experienced by the household in making ends meet. This assessment is based on the household's total income.

Other concepts: Equivalised disposable Income (EQ_INC)

Calculation method: This dataset uses the following two indicators to describe the distribution of income broken down by the different levels that describe the ability to make

ends meet (SUBJNMON). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

A. Weighted mean equivalised disposable income after social transfers (EQ_INC20) by the level that describes the ability to make ends meet:

$$MEI_Exx_{at_SUBJNMON} = \frac{\sum_{i_at_SUBJNMON} EQ_INC20xx_i \cdot RB050a_i}{\sum_{\forall i_at_SUBJNMON} RB050a_i}$$

C. Weighted median equivalised disposable income after social transfers (EQ_INC20) by the level that describes the ability to make ends meet:

$$MED_Exx_{at_SUBJNMON} = \begin{cases} \frac{1}{2} (EQ_INC20xx_{j_at_SUBJNMON} + EQ_INC20xx_{j+1_at_SUBJNMON}), & if \sum_{i=1}^{j} RB050a_i = \frac{1}{2} \sum_{i=1}^{n} RB050a_i =$$

, where XX denotes the UNIT (CURRENCY) and takes the values EUR, PPS and NAC.

Methodological issues:

- The objective is to assess the respondent feeling about the level of difficulty experienced by the household in making ends meet.
- The respondent's assessment is based on the household's total income.
- Income refers to 'net' income i.e. to income after deduction and social insurance.
- The usual necessary expenses of the household should include housing related costs but exclude business and farm work costs.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Subjective and non monetary indicator (SUBJNMON): Households making ends meet with great difficulty, with difficulty or with some difficulty/households making ends meet fairly easily, easily or very easily/households making ends meet with great difficulty/ households making ends meet with difficulty/households making ends meet with some difficulty/households making ends meet fairly easily/households making ends meet easily/households making ends meet very easily

Reference period: Survey year for sex and ability to make ends meet. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: DI10.sas

4.2.4.10 S80/S20 income quintile share ratio by sex and selected age group



Dataset: S80/S20 income quintile share ratio by sex and selected age group **Dissemination tree code:** <u>ilc_di11</u> **Data source:** EU-SILC

Description: The ratio of total equivalised disposable income received by the 20% of the country's population with the highest equivalised disposable income (top quintile) to that received by the 20% of the country's population with the lowest equivalised disposable income (lowest quintile), in the relevant age and sex group.

Key indicator(s) included in the dataset: Inequality of income distribution - S80/S20 income quintile share ratio (OMC, JAF indicator)

Policy relevance: The s80/s20 interquintile share ratio refers to income inequalities. Whereas poverty risk is concerned with the bottom of the income distribution, the quintile share ratio reflects the range of the income distribution: It measures the size of the gap between the bottom and top incomes in a State.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Ratio

Main concepts used: --

Other concepts: Equivalised disposable Income (EQ_INC), Inter - Quantile, Age

Calculation method: The S80/S20 income quintile share ratio broken down by group of age and sex ($S80_20_{at_age/gender}$) is calculated as the weighted ratio of the equivalised disposable income after social transfers (EQ_INC20) of people belonging in the fifth (top) income quintile to the equivalised disposable income after social transfers (EQ_INC20) of those belonging in the first (lowest) income quintile. The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$S80_20_{at_age/gender} = \frac{\sum_{i=in_f \ if \ th_quint \ ile} RB050a_i \times EQ_INC20_{i_at_age/gender}}{\sum_{\forall i_in_f \ irst_quint \ ile} RB050a_i \times EQ_INC20_{i_at_age/gender}}$$

Methodological issues:

- The quintile shares are sensitive to outliers. Extreme incomes, especially at the top end of the distribution, can have a strong influence on this indicator.
- The value this indicator takes when calculated separately for the two age groups does not necessarily imply anything about the distribution of income within one country's

population. Rather, it measures solely the distribution of income within a particular age group, treating the complementing age group as though it was not present. One cannot add the inequality of both groups to obtain the overall inequality.

• As the quintiles are calculated at the level of the individuals (not the households) in the sample, individuals in the same age group within the same household could be sorted into different adjoining quintiles, even though their equivalised disposable income would be equal by definition.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/less than 65 years/65 years or over

Reference period: Survey year for sex. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: DI11.sas

4.2.4.11 Gini coefficient



Dataset: Gini coefficient **Dissemination tree code:** <u>ilc_di12</u> Data source: EU-SILC

Description: The Gini coefficient measures the extent to which the distribution of equivalised disposable income after social transfers deviates from a perfectly equal distribution. It is a summary measure of the cumulative share of equivalised income accounted for by the cumulative percentages of the number of individuals. Its value ranges from 0% (complete equality) to 100% (complete inequality).

Key indicator(s) included in the dataset: Inequality of income distribution - Gini coefficient (OMC indicator)

Policy relevance: Governments, policymakers and society in general cannot combat poverty and social exclusion without analysing inequalities within society, whether they are economic in nature or social. This indicator refers to income inequalities. Data on economic inequality becomes particularly important for estimating relative poverty, because the distribution of economic resources may have a direct bearing on the extent and depth of poverty. Whereas the poverty risk is concerned with the bottom of the income distribution, the Gini coefficient measures the inequality of the entire income distribution. In contrast to the s80/s20 interquintile ratio, the Gini coefficient is sensitive to changes that take place around the middle of the income distribution.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage

Main concepts used: --

Other concepts: Equivalised disposable Income (EQ_INC), Gini coefficient

Calculation method: The Gini coefficient (Gini) is calculated as:

$$Gini = [\frac{2 \cdot \sum_{i=1}^{n} (\sum_{i=1}^{i} (RB050a_{i}) \cdot RB050a_{i} \cdot EQ_INC20_{i}) - \sum_{i=1}^{n} (RB050a_{i} \cdot RB050a_{i} \cdot EQ_INC20_{i})}{\sum_{i=1}^{n} (RB050a_{i}) \cdot \sum_{i=1}^{n} (RB050a_{i}) \cdot \sum_{i=1}^{n} (RB050a_{i} \cdot EQ_INC20_{i})} - 1] \times 100$$

The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

Methodological issues: --

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time

Reference period: Income reference period – with the exceptions of Ireland (moving income reference period) and the UK (survey year) this is the year preceding the survey.

SAS program: DI12.sas

4.2.4.12 Mean and median income before social transfers (pensions included in social transfers) by age and sex



Dataset: Mean and median income before social transfers (pensions included in social transfers) by age and sex

Dissemination tree code: <u>ilc_di13</u> Data source: - **Description:** The dataset contains the following two indicators:

- Mean Equivalised disposable Income (EQ_INC) before all <u>social transfers</u> (including pensions) (EQ_INC23) (MEI_E) of persons in the respective age and sex group
- Median Equivalised disposable Income (EQ_INC) before all <u>social transfers</u> (including pensions) (EQ_INC23) (MED_E) of persons in the respective age and sex group

Key indicator(s) included in the dataset: -

Policy relevance: Disposable income is taken into account in a broad range of indicators. To the extent that people belonging in different equivalised income quintiles have different poverty risk, the overall distribution of equivalised disposable income provides valuable background information. Favourable living conditions depend on a wide range of factors, which may be divided into those that are income-related and those that are not. Income distribution within a country provides a picture of inequalities: on the one hand, inequalities may create incentives for people to improve their situation through work, innovation or acquiring new skills, while on the other, crime, poverty and social exclusion are often seen as being linked to such income inequalities. This indicator examines the hypothetical non-existence of social transfers. The difference between the 'before' and 'after' transfer poverty rates. It compares the observed risk of poverty with a hypothetical measure of a risk of poverty in absence of social transfers all other things being kept equal.

Statistical population: All persons living in private households. Persons with missing values for disposable income, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Euro (from 1.1.1999) – ECU (up to 31.12.1998)/purchasing power standard/national currency (including 'euro fixed' series for euro area countries)

Main concepts used:

Social transfers cover the social help given by central, state or local institutional units. They include: old-age (retirement) and survivors' (widows' and widowers') pensions; unemployment benefits; family-related benefits; sickness and invalidity benefits; educationrelated benefits; housing allowances; social assistance; other benefits.

Persons at risk of poverty are those with an Equivalised disposable Income (EQ_INC) before all social transfers (including pensions) (EQ_INC23) below the Risk of poverty threshold (ARPTXX).

Other concepts: Age

Calculation method: The dataset contains weighted mean and median of disposable income, computed separately on each age and sex group. The weight variable used is the Adjusted cross sectional weight (RB050a)

A. Weighted mean equivalised disposable income before social transfers (pensions included in social transfers) (EQ_INC23) is computed as:

$$MEI_Exx_{at_AGE/GENDER} = \frac{\sum_{i_at_AGE/GENDER} EQ_INC23xx_i \cdot RB050a_i}{\sum_{\forall i_at_AGE/GENDER} RB050a_i}$$

B. Weighted median equivalised disposable income before social transfers (pensions included in social transfers) (EQ_INC23) is computed as:

$$MED_Exx_{at_AGE/GENDER} = \begin{cases} \frac{1}{2} (EQ_INC23xx_{j_at_AGE/GENDER} + EQ_INC23xx_{j+1_at_AGE/GENDER}), & if \sum_{i=1}^{j} RB050a_i = \frac{1}{2} \sum_{i=1}^{n} RB05$$

, where XX denotes the CURRENCY and takes the values EUR, PPS and NAC.

Methodological issues:

- Social transfers are defined as current transfers received by individuals during the income reference period, which are intended to relieve them from the financial burden of a number of risks or needs, made through collectively organised schemes or outside such schemes by government units and Non-Profit Institutions Serving Households. In order to be considered a social benefit, the transfer must be (a) compulsory for the group in question and (b) based on a principle of social solidarity.
- Social benefits do not include tax rebates, benefits in kind or benefits paid from schemes into which the recipient has made voluntary payments only, independently of his/her employer or government.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time: the survey year
- Sex (SEX): Total/Male/Female
- Age: Total/less than 16 years/from 16 to 64 years/16 years or over/less than 18 years/from 18 to 64 years/18 years or over/65 years or over

Reference period: The end of the income reference period, which is the year before the survey year with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: DI13.sas

4.2.4.13 Mean and median income before social transfers (pensions excluded from social transfers) by age and sex



Dataset: Mean and median income before social transfers (pensions excluded from social transfers) by age and sex

Dissemination tree code: <u>ilc_di14</u>

Data source: -

Description: The dataset contains the following two indicators:

- Mean Equivalised disposable Income (EQ_INC) before all <u>social transfers</u> (excluding pensions) (EQ_INC22) (MEI_E) of persons in the respective age and sex group
- Median Equivalised disposable Income (EQ_INC) before all <u>social transfers</u> (excluding pensions) (EQ_INC22) (MED_E) of persons in the respective age and sex group

Key indicator(s) included in the dataset: -

Policy relevance: Disposable income is taken into account in a broad range of indicators. To the extent that people belonging in different equivalised income quintiles have different poverty risk, the overall distribution of equivalised disposable income provides valuable background information. Favourable living conditions depend on a wide range of factors, which may be divided into those that are income-related and those that are not. Income distribution within a country provides a picture of inequalities: on the one hand, inequalities may create incentives for people to improve their situation through work, innovation or acquiring new skills, while on the other, crime, poverty and social exclusion are often seen as being linked to such income inequalities. The difference between the 'before' and 'after' transfer poverty rates provides an indication of the effectiveness of social transfers in reducing poverty rates. It compares the observed risk of poverty with a hypothetical measure of a risk of poverty in absence of social transfers (other than pensions) all other things being kept equal.

Statistical population: All persons living in private households. Persons with missing values for disposable income, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Euro (from 1.1.1999) – ECU (up to 31.12.1998)/purchasing power standard/national currency (including 'euro fixed' series for euro area countries)

Main concepts used:

Social transfers cover the social help given by central, state or local institutional units. They include: old-age (retirement) and survivors' (widows' and widowers') pensions; unemployment benefits; family-related benefits; sickness and invalidity benefits; education-related benefits; housing allowances; social assistance; other benefits.

Persons at risk of poverty are those with an Equivalised disposable Income (EQ_INC) before all social transfers (excluding pensions) (EQ_INC22) below the Risk of poverty threshold (ARPTXX)

Other concepts: Age

Calculation method: The dataset contains weighted mean and median of disposable income, computed separately on each age and sex group. The weight variable used is the Adjusted cross sectional weight (RB050a)

A. Weighted mean equivalised disposable income before social transfers (pensions excluded from social transfers) (EQ_INC22) is computed as:

$$MEI_Exx_{at_AGE/GENDER} = \frac{\bigvee_{i_at_AGE/GENDER}}{\sum_{\forall_{i_at_AGE/GENDER}} RB050a_{i}}$$

B. Weighted median equivalised disposable income before social transfers (pensions excluded from social transfers) (EQ_INC22) is computed as:

$$MED_Exx_{at_AGE/GENDER} = \begin{cases} \frac{1}{2} (EQ_INC22xx_{j_at_AGE/GENDER} + EQ_INC22xx_{j+1_at_AGE/GENDER}), & \text{if } \sum_{i=1}^{j} RB050a_i = \frac{1}{2} \sum_{i=1}^{n} RB050a_i = \frac{1}{2} \sum_{i=1}^{n}$$

, where XX denotes the CURRENCY and takes the values EUR, PPS and NAC.

Methodological issues:

- Social transfers are defined as current transfers received by individuals during the income reference period, which are intended to relieve them from the financial burden of a number of risks or needs, made through collectively organised schemes or outside such schemes by government units and Non-Profit Institutions Serving Households. In order to be considered a social benefit, the transfer must be (a) compulsory for the group in question and (b) based on a principle of social solidarity.
- Social benefits do not include tax rebates, benefits in kind or benefits paid from schemes into which the recipient has made voluntary payments only, independently of his/her employer or government.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time: the survey year
- Sex (SEX): Total/Male/Female

• Age: Total/less than 16 years/from 16 to 64 years/16 years or over/less than 18 years/from 18 to 64 years/18 years or over/65 years or over

Reference period: The end of the income reference period, which is the year before the survey year with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: DI14.sas

4.2.4.14 Transitions of income by decile



Dataset: Transitions of income by decile **Dissemination tree code:** <u>ilc_di30</u> Data source: - EU-SILC

Description: Distribution (%) of persons by the income decile class they move to in the survey year (t); shown separately for each income decile class during the last year (t-1).

Key indicator(s) included in the dataset: -

Policy relevance:

Behind 'economic growth' of x percent hides a diversity of individual experiences. Some people see their income grow by a lot more than x percent while others may be losing ground despite the economic growth. In contrast to some popular feelings, it is not necessarily the richest who are getting even richer (and the poorest poorer), at least if we look at annual flows of income. It has been well documented that there is 'income mobility' in modern societies with people moving up and down the income ladder over time, some escaping poverty while others are falling into deprivation.

Statistical population: All persons living in private households for the lat 2 years. Persons with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used: --

Other concepts: <u>Equivalised disposable income (EQ_INC)</u>, <u>Inter-Quantile interval</u>, <u>Quantile Income</u>

Calculation method: The dataset shows the percentages of persons who move between income decile classes (or stay in the same class) between two consecutive years. The weight variable used is the Longitudinal weight estimate – Two-year duration, RB062. For each class of persons specified by their income decile in year t-1 (Quantile(t-1)), the

distribution of those that have have undergone transition of type TRANS in year t (Quantile(t)) is computed as follows:

$$TRANSIY_{at_quantile(t-1)} = \frac{\frac{\forall i_[quantile(t-1)-quantile(t)]=TRANS}{\sum_{\forall i} RB062_{i}} \cdot 100$$

Methodological issues: --

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, excluding Switzerland)
- Time: the survey year
- Income decile (QUANTILE) in the year before the reference one: Total/Ninth decile/Eighth decile/Seventh decile/Sixth decile/Fifth decile/Fourth decile/ Third decile/Second decile/ Tenth decile/ First decile

and provides the distribution of the population in each reference cell by

• Transitions (TRANS1Y): Transition to 1 income decile up/Transition to more than 1 income decile up/Transition to 1 income decile down/Transition to more than 1 income decile down/No change

Reference period: Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: L_di30.sas

4.3 Living conditions (ilc_lv)

4.3.1 Private Households (ilc_lvph)

4.3.1.1 Average household size



Dataset: Average household size **Dissemination tree code:** <u>ilc_lvph01</u>

Data source: EU-SILC

Description: This is the weighted average (effective) household size, where the weight is the household cross-sectional weight (DB090).

Key indicator(s) included in the dataset: --

Policy relevance: Household structure is taken into account in a broad range of indicators (e.g. equivalisation of income in EU-SILC). To the extent that different household sizes have different poverty risks, for instance in households with a high dependent to earner ratio, the overall distribution of household sizes provides valuable background information.

Statistical population: All persons living in private households. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: (Weighted) Average

Main concepts used:

Other concepts: Equivalised Household size (EQ_SS)

Calculation method: Weighted average household size (AHHSIZ) is calculated as:

$$AHHSIZ = \frac{\sum_{\forall i} DB090_i \times HHSIZE_i}{\sum_{\forall i} DB090_i}$$

The weight is the household cross-sectional weight (DB090).

Methodological issues: --

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time

Reference period: Age is the age of the respondent at the end of income reference period – we use Age for the calculation of household size. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _lvph01.sas, (VAR_HHSIZE.sas)

4.3.1.2 Distribution of households by household type from 2003



Dataset: Distribution of households by household type from 2003 **Dissemination tree code:** <u>ilc_lvph02</u> **Data source:** EU-SILC

Description: Share of households in the relevant household type as percentage of total households.

Key indicator(s) included in the dataset: --

Policy relevance: The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements. Household structure is taken into account in a broad range of indicators (e.g. equivalisation of income in EU-SILC). To the extent that different household types have different poverty risks or probabilities of becoming jobless, the overall distribution of household types provides valuable background information.

Statistical population: All persons living in private households. People with missing values for household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage

Main concepts used: --

Other concepts: Household Type (HHTYP)

Calculation method: Distribution of households (DISHH) broken down by group of household type ($DISHH_{at_HHTYP}$) is calculated as the percentage of households in each household type group over the total population of households. The weight variable used is the Household Cross Sectional Weight (DB090).

$$DISHH_{at_HHTYP} = \frac{\sum_{\forall i_HHTYP} DB090_i}{\sum_{\forall i_DB090_i} DB090_i} \cdot 100$$

Methodological issues:

- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household Type (HHTYP): Total/single person/one adult younger than 65 years/one adult older than 65 years/single person with dependent children/single female/single male/two adults/two adults younger than 65 years/two adults, at least one aged 65 years and over/two adults with one dependent child/two adults with two dependent children/two adults with three or more dependent children/three or more adults/three

or more adults with dependent children/households without dependent children/households with dependent children

Reference period: Survey year for Household type. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _lvph02.sas

4.3.1.3 Distribution of households by household size



Dataset: Distribution of households by household size **Dissemination tree code:** <u>ilc_lvph03</u> Data source: EU-SILC

Description: Share of households in the relevant group of household size as percentage of total number of households

Key indicator(s) included in the dataset: --

Policy relevance: Household structure is taken into account in a broad range of indicators (e.g. equivalisation of income in EU-SILC). To the extent that different household sizes have different poverty risks, for instance in households with a high dependent to earner ratio, the overall distribution of household sizes provides valuable background information.

Statistical population: All persons living in private households. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage

Main concepts used: --

Other concepts: Equivalised Household size (EQ_SS)

Calculation method: Distribution of households (DISHH) broken down by group of household size ($DISHH_{at_HHSIZE}$) is calculated as the percentage of households in each household size group over the total population of households. The weight variable used is the Household Cross Sectional Weight (DB090).



SAS program: _lvph03.sas (VAR_HHSIZE)

4.3.1.4 Distribution of households by household type and income level



Dataset: Distribution of households by household type and income level **Dissemination tree code:** <u>ilc_lvph04</u> **Data source:** EU-SILC

Description: Share of households in the relevant group of household size and income as percentage of total number of households

Key indicator(s) included in the dataset: --

Policy relevance: The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements. Household structure is taken into account in a broad range of indicators (e.g. equivalisation of income in EU-SILC). To the extent that different household types have different poverty risks or probabilities of becoming jobless, the overall distribution of household types provides valuable background information.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage

Main concepts used: --

Other concepts: Household types (HHTYP), Equivalised disposable Income (EQ_INC)

Calculation method: Distribution of households (DISHH) broken down by group of income level and household type $(DISHH_{at_INCGRP/HHTYP})$ is calculated as the percentage of households in each household type and income level group (INCGRP) over the total population of households. The weight variable used is the Household Cross Sectional Weight (DB090).

$$DISHH_{at_INCGRP/HHTYP} = \frac{\sum_{i_INCGRP/HHTYP} DB090_{i}}{\sum_{\forall i_DB090_{i}} DB090_{i}} \cdot 100$$

Methodological issues:

- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The place of usual residence is used as the basis of the household member`ship. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household Type (HHTYP): Total/single person/one adult younger than 65 years/one adult older than 65 years/single person with dependent children/single female/single male/two adults/two adults younger than 65 years/two adults, at least one aged 65 years and over/two adults with one dependent child/two adults with two dependent children/two adults with three or more dependent children/three or more adults/three or more adults with dependent children/households without dependent children/households with dependent children
- Income group (INCGRP): Below 60% of median equivalised income/above 60% of median equivalised income/total

Reference period: Survey year for Household type. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _lvph04.sas

4.3.1.5 Distribution of households with children by number of children



Dataset: Distribution of households with children by number of children **Dissemination tree code:** <u>ilc_lvph05</u>

Data source: EU-SILC

Description: Distribution (%) of households with children into classes defined according to the number of children living in the household

Key indicator(s) included in the dataset: -

Policy relevance: Household structure is taken into account in a broad range of indicators (e.g. equivalised income) in EU-SILC. To the extent that different household sizes pose different poverty risks the overall distribution of household sizes provides valuable background information. For instance, for a given household size, a larger number of children and elderly members would imply a smaller number of earners in the household. This indicator is a measure of the burden on members of the labour force within the household. One might expect that a high dependency ratio would be correlated positively with the risk of poverty.

Statistical population: All private households with persons younger than 18 years. Persons with missing values for age are excluded. Collective households and institutions are generally excluded from the target population.

Unit of measurement: Percentage

Main concepts used:

Number of children (Number of children (NUM_OF_CHLD)).

Other concepts: -

Calculation method: The percentage of households with children with number of children in a given number of children class $(DISHH_{at_NUM_OF_CHLD})$ in the dataset's statistical population is calculated with the formula that follows. The weight variable used is the Household Cross Sectional Weight (DB090).

$$DISHH_{at_NUM_OF_CHLD} = \frac{\sum_{\forall i_NUM_OF_CHLD} DB090_{i}}{\sum_{\forall i} DB090_{i}} \cdot 100$$

Methodological issues: -

Breakdowns: The dataset breaks the reference population down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time: the survey year

and provides the distribution of the population in each reference cell by

• Number of children (N_CHILD): 1 child/2 children/3 children/4 children or more

Reference period: The end of the income reference period, which is the year before the survey year with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _lvph05.sas

4.3.2 Population Structure (ilc_lvps)

4.3.2.1 Distribution of population by sex and age



Dataset: Distribution of population by sex and age **Dissemination tree code:** <u>ilc_lvps01</u> **Data source:** EU-SILC

Description: Share of population by sex and age

Key indicator(s) included in the dataset: --

Policy relevance: Age and sex is taken into account in a broad range of indicators (e.g. atrisk-of poverty or social exlusion rate by age and sex in EU-SILC). To the extent that people of different age and sex have different poverty risks or probabilities of becoming jobless, the overall distribution of population by sex and age provides valuable background information.

Statistical population: All persons living in private households. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used: --

Other concepts: Age

Calculation method: The distribution of population broken down by group of age and sex $(DISP_{at_age!sex})$ is calculated as the percentage of people in each age group and sex over the total population. The weight variable used is the Adjusted Cross Sectional Weight (RB050a).



- Time
- Sex (SEX): Total/Male/Female •
- Age: Total/less than 18 years/from 18 to 24 years/from 18 to 64 years/18 years or over/from 25 to 49 years/from 25 to 54 years/from 50 to 64 years/from 55 to 64 years/less than 60 years/60 years or over/less than 65 years/65 years or over/less than 75 years/75 years or over

Reference period: Survey year for sex. Age is the age of the respondent at the end of the income reference period.

SAS program: lvps01.sas

4.3.2.2 Distribution of population by household type and income group



Dataset: Distribution of population by household type and income group **Dissemination tree code: ilc lvps02**

Data source: EU-SILC

Description: Share of population by household type and income group

Key indicator(s) included in the dataset: Distribution of population by household type and income group (OMC)

Policy relevance: Household structure is taken into account in a broad range of indicators (e.g. equivalisation of income in EU-SILC). To the extent that different household types have different poverty risks or probabilities of becoming jobless, the overall distribution of household types provides valuable background information.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population. Unit of measurement: Percentage of people in the total population

Main concepts used: --

Other concepts: Household types (HHTYP), Equivalised disposable Income (EQ_INC)

Calculation method: The distribution of population broken down by household type and income group $(DISP_{at_HHTYP/INCGRP})$ is calculated as the percentage of people in each household type and income group over the total population. The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$DISP_{at_HHTYP/INCGRP} = \frac{\sum_{i}^{RB050a_{i}}}{\sum_{i}^{RB050a_{i}}} \cdot 100$$

Methodological issues:

- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household Type (HHTYP): Total/single person/one adult younger than 64 years/one adult younger than 65 years/one adult older than 65 years/single person with dependent children/single female/single male/two adults/two adults younger than 65 years/two adults, at least one aged 65 years and over/two adults with one dependent child/two adults with two dependent children/two adults with three or more dependent children/three or more adults/three or more adults with dependent children/three or more adults/three or more adults with dependent children/households without dependent children/households with depen
- Income Group (INCGRP): Below 60% of median equivalised income/above 60% of median equivalised income/total

Reference period: Survey year for sex. Age is the age of the respondent at the end of the income reference period - based on which we derive household type. Income reference period for income variables and work intensity – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _lvps02.sas

4.3.2.3 Distribution of population by household type and income group



Dataset: Distribution of population by work intensity of the household (population aged 0 to 59 years)

Dissemination tree code: <u>ilc_lvps03</u> Data source: EU-SILC

Description: Share of population by household type, work intensity, sex and age group

Key indicator(s) included in the dataset: --

Policy relevance: Work intensity is taken into account in a broad range of indicators (e.g. atrisk-of-poverty rate by poverty threshold and work intensity of the household in EU-SILC). To the extent that people in households with different work intensities have different poverty risks or probabilities of becoming jobless, the overall distribution of household types by work intensity provides valuable background information.

Statistical population: All persons living in private households below the age of 60. People with missing values for household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used: --

Other concepts: Age, Household types (HHTYP), Work Intensity (WI)

Calculation method: The distribution of population broken down by household type, work intensity, age and sex group $(DISP_{at_age/sex/HHTYP/WI})$ is calculated as the percentage of people in each household type, work intensity, age and sex group over the total population. The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$DISP_{at_age/sex/HHTYP/WI} = \frac{\sum_{i_age/sex/HHTYP/WI} RB050a_{i}}{\sum_{i_RB050a_{i}} RB050a_{i}} \cdot 100$$

Methodological issues:

- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household

member.

- For each working age person (aged 18 to 64) in the household that is not classified as a dependent child, two figures are computed, using the calendar of activities of the previous year:
 - g) the number of months in the previous year which the person has given information about his/her activity status (the 'workable' months)
 - h) the number of months in the previous year for which the person has been classified as 'at work'
- 'At work' comprises:
 - m) In paid employment, whether full-time or part-time
 - n) Including paid apprenticeship or training under special schemes related to employment
 - o) In self-employment (with or without employees)
 - p) Including unpaid work in family enterprise

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Less than 18 years/from 18 to 59 years/less than 60 years
- Household Type (HHTYP): Households without dependent children/households with dependent children
- Work Intensity (WORKINT): Very high work intensity [0.85 1]/high work intensity [0.55 0.85]/ medium work intensity [0.45 0.55]/low work intensity]0.2 0.45]/very low work intensity [0 0,2]/ Work Intensity other than very low [0.2-1]

Reference period: Survey year for sex. Age is the age of the respondent at the end of the income reference period – based on which we derive household type. Income reference period for income variables and work intensity – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _lvps03.sas

4.3.2.4 Distribution of population aged 18 and over by education level and age group



Dataset: Distribution of population aged 18 and over by education level and age group **Dissemination tree code:** <u>ilc_lvps04</u> **Data source:** EU-SILC

Description: Share of population by education level, sex and age group

Key indicator(s) included in the dataset: --

Policy relevance: Education level is taken into account in a broad range of indicators (e.g. at-risk-of-poverty rate by poverty threshold and education level in EU-SILC). To the extent that people with different levels of education have different poverty risks or probabilities of becoming jobless, the overall distribution of population by level of education provides valuable background information.

Statistical population: People aged 18 years and over living in private households. People with missing values for education level are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Educational level (attainment) of a person is the highest level of an educational programme the person has successfully completed and the study field of this programme. The educational classification to be used is the International Standard Classification of Education (ISCED 1997) coded according to the seven ISCED-97 categories.

Other concepts: Equivalised disposable Income (EQ_INC), Age

Calculation method: The distribution of population broken down by level of education, age and sex group $(DISP_{at_age/sex/ISCED97})$ is calculated as the percentage of people in each level of education, age and sex group over the total population. The weight variable used is the personal cross sectional weight PB040.

$$DISP_{at_age/sex/ISCED97} = \frac{\sum_{i=age/sex/ISCED97} PB040_{i}}{\sum_{i} PB040_{i}} \cdot 100$$

Methodological issues:

- ISCED refers to the International Standard Classification of Education, developed by UNESCO. The version of the classification that is applied for this indicator follows the 1997 version of ISCED.
- In face of the diversity of national education systems (with regard to curricula, compulsory schooling ages, equivalences between qualifications-and other elements) one should be careful in making cross-country comparisons.

Breakdowns: The dataset provides data for the whole population and also broken down by
Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU)

Member states, Iceland, Norway, Croatia, Switzerland, Turkey)

- Time
- Sex (SEX): Total/Male/Female
- Age: From 18 to 64 years/18 years or over/ 65 years or over
- Education level (ISCED97): All ISCED 1997 levels/pre-primary, primary and lower secondary education (levels 0-2)/upper secondary and post-secondary non-tertiary education (levels 3 and 4) /first and second stage of tertiary education (levels 5 and 6))

Reference period: Survey year for sex and education level. Age is the age of the respondent at the end of the income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year)

SAS program: _lvps04.sas

4.3.2.5 Share of young adults aged 18-34 living with their partents and sex



Dataset: Share of young adults aged 18-34 living with their parents and sex **Dissemination tree code:** <u>ilc_lvps08</u>

Data source: EU-SILC

Description: The percentage of people aged 18-34 living with their parents over the total population in the relevant age and sex group.

Key indicator(s) included in the dataset: --

Policy relevance: --

Statistical population: People aged from 18 to 34 years living in private households. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used: --

Other concepts: Age at the date of interview (AGE_IW)

Calculation method: The distribution of young adults aged 18-34 living with their parents (either with mother or with father or with both) broken down by age and sex group $(DISLPR_{at_age/sex})$ is calculated as the percentage of people living with their parents (PB160_F=1 OR PB170_F=1) in each age and sex group over the total population. The weight variable used is the personal cross sectional weight PB040.
4.3.2.6 Share of young adults aged 18-34 living with their partents by self-defined current economic status



Dataset: Share of young adults aged 18-34 living with their parents by self-defined current economic status

Dissemination tree code: <u>ilc_lvps09</u> Data source: EU-SILC

Description: The percentage of people aged 18-34 living with their parents over the total population in the relevant age and activity status group.

Key indicator(s) included in the dataset: --

Policy relevance: --

Statistical population: People aged from 18 to 34 years living in private households. People with less than 7 months declared in the calendar of activities are excluded. People with missing values for activity status are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

The Adjusted self – defined current economic status (PL31) is a slightly different categorisation of the EU – SILC variable PL031 ('Self –defined current economic status'). The adjusted variable PL31 allows for 9 categories instead of the 11 categories of the initial variable PL031. Activity status (WSTATUS), which is used in this dataset, consists of

aggregates of the adjusted current economic statuses (PL31); see section "Breakdowns" below.

Other concepts: Age at the date of interview (AGE_IW)

Calculation method: The distribution of young adults aged 18-34 living with their parents (either with mother or with father or with both) broken down by age and working status group ($DISLPR_{at_age/WSTATUS}$) is calculated as the percentage of people living with their parents (PB160_F=1 OR PB170_F=1) in each age and working status group over the total population. The weight variable used is the personal cross sectional weight PB040.

 $DISLPR_{at_AGE_IW/WSTATUS} = \frac{\frac{\forall i \ living \ with \ their \ parents_at_AGE_IW/WSTATUS}{\sum_{\forall i_at_AGE_IW/WSTATUS}} \cdot 100$

Methodological issues:

- The target variable captures the person's own perception of their main activity at present. It differs from the ILO concept to the extent that people's own perception of their main status differs from the strict definitions used in the ILO definitions. For instance, many people who would regard themselves as full-time students or homemakers may be classified as ILO- employed if they have a part-time job. Similarly, some people who consider themselves 'unemployed' may not meet the strict ILO criteria of taking active steps to find work and being immediately available.
- The self-declared main activity status is, in principle, the status that most time was spent on, but no criteria have been specified explicitly.
- This indicator measures activity status at the individual level.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Age: From 18 to 24 years/from 18 to 34 years/ from 25 to 34 years
- Activity Status (WSTATUS): Employed persons working full-time/employed persons working part-time/unemployed persons/students/other inactive persons

Reference period: Income reference period for activity status with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _lvps09.sas

4.3.2.7 Share of young adults aged 18-34 living with their partents by type of contract



Dataset: Share of young adults aged 18-34 living with their parents by type of contract **Dissemination tree code:** <u>ilc_lvps10</u> **Data source:** EU-SILC

Description: The percentage of people aged 18-34 living with their parents over the total population in the relevant age and activity status group.

Key indicator(s) included in the dataset: --

Policy relevance: --

Statistical population: People aged from 18 to 34 years living in private households. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Type of contract (PL140) refers to the main job (current if PL031=1, 2, 3 or 4 and last otherwise) of the person. If multiple jobs are held or were held, the main job should be the one with the greatest number of hours usually worked.

Other concepts: Age at the date of interview (AGE_IW)

Calculation method: The distribution of young adults aged 18-34 living with their parents (either with mother or with father or with both) broken down by age and type of contract group ($DISLPR_{at_age/WSTATUS}$) is calculated as the percentage of people living with their parents (PB160_F=1 OR PB170_F=1) in each age and type of contract group over the total population in the respective age and type of contract group. The weight variable used is the personal cross sectional weight PB040.

$$DISLPR_{at_AGE_IW/WSTATUS} = \frac{\frac{\forall i_living with their parents_at_AGE_IW/WSTATUS}{\sum_{\forall i_at_AGE_IW/WSTATUS}} \cdot 100$$

Methodological issues: --

Breakdowns: The dataset provides data for the whole population and also broken down by

• Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)

- Time
- Age: From 18 to 24 years/from 18 to 34 years/ from 25 to 34 years
- Activity Status (WSTATUS): Employees with a permanent job/employees with a temporary job

Reference period: Survey year for type of contract.

SAS program: _lvps10.sas

4.3.2.8 Share of children (aged less than 18) living with their parents by type of household

eurostat

Dataset: Share of children (aged less than 18) living with their parents by type of household **Dissemination tree code:** <u>ilc_lvps20</u>

Data source: EU-SILC

Description: Distribution (%) of persons aged less than 18 according to the type of the household they live in.

Key indicator(s) included in the dataset: -

Policy relevance: For a given household size, a larger number of children would imply a higher child dependency ratio (the ratio of the number of members below 18 to household members aged between 18 and 64 years). This dataset allows to measure the burden on members of the labour force within the household. One might expect that a high dependency ratio would be correlated positively with the level of household poverty.

Statistical population: Persons aged less than 18 years living in private households. Persons with missing values for household type or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage

Main concepts used: -

Other concepts: Household Types (children living with parents)

Calculation method: The percentage of children (aged less than 18 years) living in a given type of household (HHTYP2) in dataset's statistical population is calculated with the formula that follows. The weight variable used is the Adjusted Personal Cross Sectional weight RB050a.

$$DISCLPR_{at_HHTYP} = \frac{\sum_{\forall i_at_HHTYP} RB050a_{i}}{\sum_{\forall i} RB050a_{i}} \cdot 100$$

Methodological issues:

• The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset breaks the reference population down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time: the survey year

and provides the distribution of the population by

• Household Type (HHTYP): Child living with both married parents/child living with both parents cohabiting/child not living with parents/child living with a single parent

Reference period: The end of the income reference period, which is the year before the survey year with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _lvps20.sas

4.3.2.9 Distribution of children (aged less than 18) by highest education level of their parents and income group



Dataset: Distribution of children (aged less than 18) by parents' highest education level and income group

Dissemination tree code: <u>ilc_lvps25</u> Data source: EU-SILC

Description: The percentage of people aged less than 18 over the total population and in the relevant parents' education level breakdowns and income groups over the total population in the respective income groups and parents' level of education.

Key indicator(s) included in the dataset: --

Policy relevance:

The promotion and protection of the rights of the child is one of the objectives of the EU 2020 Agenda. The Europe 2020 Strategy sets out a vision for the 21st century of a Europe where the children of today will have a better education, access to the services and to the resources they need to grow up.¹³

Statistical population: Persons aged less than 18 living in private households. Persons with missing values for equivalised disposable income or with missing education level for mother and father are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people on the total population

Main concepts used:

Educational level (attainment) of a person is the highest level of an educational programme the person has successfully completed and the study field of this programme. The educational classification to be used is the International Standard Classification of Education (ISCED 1997) coded according to the seven ISCED-97 categories. The expression 'level successfully completed' is associated with obtaining a certificate or a diploma when there is a certification. In cases where there is no certification, successful completion must be associated with full attendance or acquired competences to access the upper level. Persons who have not completed their studies should be coded according to the highest level they have completed.

Other concepts: Equivalised disposable income (EQ_INC), Age

Calculation method: The distribution of population aged less than 18 broken down by their parents' highest educational level and income group $(DISPagex_{at_INCGRP/HHISCED})$ is calculated as the percentage of people in each income group and their parents' highest level of educational attainment over the total population. The weight variable used is the Adjusted Personal Cross Sectional weight RB050a.

$$DISPagex_{at_{INCGRP/HHISCED}} = \frac{\sum_{\forall i_{at_{INCGRP/HHISCED}}} RB050a_{i}}{\sum_{\forall i_{at_{INCGRP/HHISCED}}} RB050a_{i}} \cdot 100$$

, where *agex* takes the values: less than 6 years, less than 18 years, from 6 to 11 years, from 12 to 17 years.

Methodological issues:

• Highest educational level of children's parents refers to children living in a household with one or both parents and to the highest level of education attained by (at least one of) the parents. Data are classified according to the International Standard Classification of Education (ISCED): low education corresponds to ISCED levels 0-2 (pre-primary, primary and lower secondary education); medium education

¹³ European Commission – "An EU Agenda for the Rights of the child" [COM(2011) 60].

corresponds to ISCED levels 3 and 4 (upper secondary and post-secondary nontertiary education) and high education corresponds to ISCED levels 5 and 6 (tertiary education).

- In face of the diversity of national education systems (with regard to curricula, compulsory schooling ages, equivalences between qualifications and other elements) one should be careful in making cross-country comparisons.
- Persons who have never been in education (and/or illiterate) are excluded from the calculation of the indicator.

Breakdowns: The dataset breaks the reference population down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland)
- Time
- Age (AGE) Less than 6 years/Less than 18 years/From 6 to 11 years/From 12 to 17 years
- Income Group (INCGRP): Below 60% of median equivalised income/above 60% of median equivalised income/total
- Educational Level (ISCED97): Pre-primary, primary and lower secondary education (levels 0-2)/Upper secondary and post-secondary non-tertiary education (levels 3 and 4)/First and second stage of tertiary education (levels 5 and 6)

Reference period: Survey year for Educational Level (ISCED97). Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _lvps25.sas (VAR_HHISCED.sas)

4.3.2.10 Distribution of population aged 65 and over by type of household



Dataset: Distribution of population aged 65 and over by type of household **Dissemination tree code:** <u>ilc_lvps30</u>

Data source: EU-SILC

Description: Distribution (%) of persons aged 65 and over according to the type of household they live in.

Key indicator(s) included in the dataset: -

Policy relevance: For a given household size, a larger number of elderly members would imply a smaller number of earners in the household and so a greater older members dependency ratio (the ratio of the number of members over 64 to household members aged between 18 and 64 years). This dataset allows measuring the burden on members of the

labour force within the household. One might expect that a high dependency ratio would be correlated positively with the level of household poverty.

Statistical population: Persons aged 65 and over living in private households. Persons with missing values for household type or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage

Main concepts used: -

Other concepts: Household Types (children living with parents)

Calculation method: The percentage of persons aged 65 and over of a given sex group living in a given type of household (HHTYP) ($DISELD_{at_HHTYP}$) is calculated with the formula that follows. The weight variable used is the Adjusted Personal Cross Sectional weight RB050a.

$$DISELD_{at_sex/HHTYP} = \frac{\sum_{\forall i_at_sex/HHTYP} RB050a_{i}}{\sum_{\forall i_at_sex} RB050a_{i}} \cdot 100$$

Methodological issues:

• The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset breaks the reference population down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time: the survey year
- Sex (SEX): Total/Male/Female

and provides the distribution of the population in each reference cell by

• Household Type (HHTYP): One adult older than 65 years/couple without children without other persons/couple living with other persons/other households

Reference period: The end of the income reference period, which is the year before the survey year with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _lvps30.sas

4.3.3 Health and labour conditions (ilc_lvhl)

4.3.3.1 Distribution of population aged 18 and over by health status, age group and sex



Dataset: Distribution of population aged 18 and over by health status, age group and sex **Dissemination tree code:** <u>ilc_lvhl01</u> **Data source:** ELL SU C

Data source: EU-SILC

Description: Share of population aged 18 and over by health status, age group and sex

Key indicator(s) included in the dataset: --

Policy relevance: Differences in health outcomes can be observed not only across Member States but also within each country between different sections of the population according to socioeconomic status, place of residence and ethnic group. People at-risk-of poverty have limited access to health care and social protection, and gender inequality disadvantages further the health of women and girls at-risk-of poverty. For people at-risk-of poverty especially, health is also a crucially important economic asset. Their livelihoods depend on it. When a person at-risk-of poverty or socially vulnerable person becomes ill or injured, the entire household can become trapped in a downward spiral of lost income and high health care costs. The cascading effects may include diverting time from generating an income or from schooling to care for the sick; they may also force the sale of assets required for livelihoods. To the extent that different health statuses generally have different poverty risks the overall distribution of population by health status provides valuable background information.

Statistical population: Population aged 18 years and over living in private households. People with missing values for health level are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used:

General health (PH010) is a measure of self-perceived health by the selected respondent (where applies) or all current household members aged 16 and over. The reference is to health in general rather than the present state of health, as the question is not intended to measure temporary health problems.

Other concepts: Age

Calculation method: The distribution of population broken down by health status, age and sex $(DISP_{at_age/sex/health})$ is calculated as the percentage of people (or thousands of people) in each health status group (*levels*), age group and sex over the total population. The weight variable used is the personal cross sectional weight PB040.



4.3.3.2 Distribution of population aged 18 and over by most frequent activity status, age group and sex



Dataset: Distribution of population over 18 years by most frequent activity status, age group and sex

Dissemination tree code: <u>ilc_lvhl02</u> **Data source**: EU-SILC **Description:** Share of population aged 18 by most frequent activity status, age group and sex

Key indicator(s) included in the dataset: --

Policy relevance: Activity status is taken into account in a broad range of indicators (e.g. atrisk-of poverty by poverty threshold and most frequent activity status in the previous year in EU-SILC). To the extent that people of different working status have different poverty risks the overall distribution of population by activity status provides valuable background information.

Statistical population: Population aged 18 years and over living in private households. People with less than 7 months declared in the calendar of activities are excluded. People with missing values for equivalised disposable income or activity status are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

The **most frequent activity status** is the status (employed – employees, employed except employees, unemployed, retired, other inactive) that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. (Activity Status (ACTSTA))

Other concepts: Age, Equivalised disposable Income (EQ_INC)

Calculation method: The distribution of population broken down by activity status, income group and sex $(DISP_{at_sex/WSTATUS/INCGRP})$ is calculated as the percentage of people in each activity status group, income group and sex over the total population. The weight variable used is the personal cross sectional weight PB040.

$$DISP_{at_sex/WSTATUS/INCGRP} = \frac{\sum_{i} PB040_{i}}{\sum_{i} PB040_{i}} \cdot 100$$

- The most frequent activity status is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. Consequently, where an individual provides information on his activity status over 12 months, his most frequent activity status will be the status he declares to have occupied for at least 7 months. Individuals who have spent only half or less than the total number of declared months in any activity status are excluded from the computation. People with less than 7 months declared in the calendar of activities are excluded.
- The activity statuses cannot be considered as a perfectly hierarchical structure. Due to the construction of the activity statuses, the subset of the total population 'employed persons' will contain more than the sum of 'employees' and 'employed persons except employees'. The same holds for the subset 'not employed persons'. That is, the breakdowns of 'employed persons' and 'not employed persons' are not

exhaustive. This is the case because persons who spend less than half of the reported time in two or more breakdowns of 'employed persons' or 'not employed persons' may qualify as being 'employed person' or 'not employed person' but not any of the breakdowns.

- The most frequent activity status for each month is based on a self-assessment by the interviewees. Therefore, it may not be entirely consistent with the ILO coding that is applied in the European Union Labour Force Survey.
- This indicator measures activity status at the individual level.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age (AGE): from 18 to 64 years/from 18 years and over/from 65 years and over
- Activity status (WSTATUS): Population/employed persons/employees/employed persons except employees/not employed persons/unemployed persons/retired persons/other inactive persons
- Income Group (INCGRP): Below 60% of median equivalised income/above 60% of median equivalised income/total

Reference period: Survey year for Sex. Previous to survey year for activity status. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _lvhl02.sas

4.3.3.3 Distribution of population aged 18 and over by occupation, income group and sex



Dataset: Distribution of population aged 18 and over by occupation, income group and sex **Dissemination tree code:** <u>ilc_lvhl03</u> **Data source:** EU-SILC

Description: Share of population aged 18 and over by occupation, income group and sex

Key indicator(s) included in the dataset: --

Policy relevance: Occupations are having high social significance in wider domains of social life and social networks, having critical influences upon friendship, marriage, leisure, consumption, and subjective identities, and the wider structures of social order and reproduction, which are defined and reproduced around these social behaviours. Occupational data can be used as an alternative indicator of poverty, to this extent the overall distribution of population by occupation provides valuable background information.

Statistical population: Population aged 18 years and over living in private households. People with missing values for equivalised disposable income and ISCO-88 or ISCO-08 are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used: --

Other concepts: Equivalised disposable Income (EQ_INC)

Calculation method: The distribution of population broken down by occupation group (PL050), income group and sex $(DISP_{at_sex/ISCO88/INCGRP})$ is calculated as the percentage of people in each occupation group, income group and sex over the total population. The weight variable used is the personal cross sectional weight PB040.

$$DISP_{at_sex/ISCO88/INCGRP} = \frac{\sum_{i=at_sex/ISCO88/INCGRP} PB040_{i}}{\sum_{i} PB040_{i}} \cdot 100$$

- The EU-SILC Regulation refers to the classification ISCO-88. However, from the 2011 operation onwards the classification ISCO-08 should be used1. For the 2011 operation, coding according to both classifications ISCO-88 and ISCO-08 was done but no back-casting was required. The double reporting should only be performed for 2011. From the 2012 operation onwards only the new classification ISCO-08 should be used.
- ISCO-88 provides a system for classifying and aggregating occupational information obtained by means of population censuses and other statistical surveys, as well as from administrative records.
- ISCO 88 group jobs together in occupations and more aggregate groups mainly on the basis of the similarity of skills required fulfilling the tasks and duties of the jobs. Two dimensions of the skill concept are used in the definition of ISCO 88 groups:
 - a) Skill level, which is a function of the range and complexity of the tasks involved, where the complexity of tasks has priority over the range; and
 - b) Skill specification, which reflects type of knowledge applied, tools and equipment used, materials worked on, or with, and the nature of the goods and services produced. It should be emphasized that the focus in ISCO 88 is on the skills required to carry out the tasks and duties of an occupation and not on whether a worker in a particular occupation is more or less skilled than

another worker in the same or other occupations.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- ISCO88: Legislators, senior officials and managers/professionals/technicians and associate professionals/clerks/service workers and shop and market sales workers/skilled agricultural and fishery workers/craft and related trades workers/plant and machine operators and assemblers/elementary occupations/armed forces
- Income Group (INCGRP): Below 60% of median equivalised income/above 60% of median equivalised income/total

Reference period: Occupation refers to current/last situation. Survey year for Sex. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _lvhl03.sas

4.3.3.4 Distribution of population aged 18 and over by part-time or full-time employment, income group and sex

eurostat

Dataset: Distribution of population aged 18 and over by part-time or full-time employment, income group and sex

Dissemination tree code: <u>ilc_lvhl04</u>

Data source: EU-SILC

Description: Share of employees aged 18 and over by part-time or full-time employment, income group and sex

Key indicator(s) included in the dataset: --

Policy relevance: Working status is taken into account in a broad range of indicators (e.g. in – work at-risk-of poverty rate by full-/part-time work in EU-SILC). To the extent that people of different working status have different poverty risks or probabilities of becoming jobless, the overall distribution of population by working status provides valuable background information

Statistical population: Employees aged 18 years and over living in private households. People with missing values for equivalised disposable income or working status are excluded. Persons living in collective households and in institutions are generally excluded

from the target population **Unit of measurement:** Percentage of people in the total population

Main concepts used:

The **most frequent activity status** is the status (employed – employees, employed except employees, unemployed, retired, other inactive) that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. (Activity Status (ACTSTA))

Self-defined current economic status (PL031) for employees, regarding full-/part-time employment (PL031 = 1 or 2).

Other concepts: Equivalised disposable Income (EQ_INC)

Calculation method: The distribution of employees (ACSTA = 1 or 5 or 6 AND PL031 = 1 or 2) broken down by type of employment, income group and sex ($DISP_{at_sex/BREAK_IL/INCGRP$) is calculated as the percentage of people in each employment type group ($BREAK_IL$), income group and sex over the total population. The weight variable used is the personal cross sectional weight PB040.

$$DISP_{at_gender/BREAK_IL/INCGRP} = \frac{\frac{\forall i_at_gender/BREAK_IL/INCGRP}{\sum_{i} PB040_{i}} \cdot 100$$

Methodological issues:

• The full-time/part time breakdown is also based on self-assessment.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Working Status (BREAK_IL): Working full time/working part time
- Income Group (INCGRP): Below 60% of median equivalised income/above 60% of median equivalised income/total

Reference period: Survey year for Sex. Previous to survey year for activity status. Current for self-defined current economic status. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _lvhl04.sas

4.3.3.5 People living in households with very low work intensity by age and sex (population aged 0 to 59 years)



Dataset: People living in households with very low work intensity by age and sex (population aged 0 to 59 years)

Dissemination tree code: <u>ilc lvhl11</u>

Data source: EU-SILC

Description: Persons (as percentage of persons or as thousands of persons) living in households with very low work intensity in the relevant age and sex breakdowns

Key indicator(s) included in the dataset: People living in households with very low work intensity (Europe 2020, JAF)

Policy relevance: Work intensity is taken into account in a broad range of indicators since it is one of the three dimensions that included in the EU2020 indicators. This indicator refers to people living in households with work intensity less than 0.2. The promotion of employment growth has been high on the agenda of the EU for several decades, to that extent; the overall distribution of population living in households with very low work intensity provides valuable background information.

Statistical population: Population less than 60 years living in private households with very low work intensity. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of population of people living in households with very low work intensity/thousands of persons living in households with very low work intensity.

Main concepts used:

A persons living in household with very low <u>work intensity</u> is a person living in a household with work intensity (WI) below a threshold set at 0.20.

Other concepts: Age

Calculation method: The distribution of population living in household with very low work intensity broken down by age and sex $(LOW _WI_{at_age/sex})$ is calculated as the percentage of people (or thousands of people) living in households with low work intensity (WI < 0.2) in each age and sex group. The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$LOW_WI_{at_age/sex} = \frac{\sum_{i \text{ where WI<0.2_at_age/sex}} RB050a_i}{\sum_{\forall i \text{ where WI<0.2}} RB050a_i} \cdot 100$$



SAS program: lvhl11.sas

4.3.3.6 People living in households with very low work intensity by most frequent activity status (population aged 18 to 59 years)



Dataset: People living in households with very low work intensity by most frequent activity status (population aged 18 to 59 years) **Dissemination tree code:** <u>ilc_lvhl12</u>

Data source: EU-SILC

Description: Persons as percentage of persons living in households with very low work intensity in the relevant age, sex and frequent activity status breakdowns

Key indicator(s) included in the dataset: --

Policy relevance: Work intensity is taken into account in a broad range of indicators since it is one of the three dimensions that included in the EU2020 indicators. This indicator refers to people living in households with work intensity less than 0.2. The promotion of employment growth has been high on the agenda of the EU for several decades, to that extent, the overall distribution of population living in households with very low work intensity provides valuable background information.

Statistical population: Population aged 18 to 59 living in private households with very low work intensity. People with less than 7 months declared in the calendar of activities are excluded. People with missing values for activity status are excluded. Persons living in collective households and in institutions are generally excluded from the target population **Unit of measurement:** Percentage of population of persons living in households with very low work intensity

Main concepts used:

The **most frequent activity status** is the status (employed – employees, employed except employees, unemployed, retired, other inactive) that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. (Activity Status (ACTSTA))

A persons living in household with very low <u>work intensity</u> is a person living in a household with work intensity (WI) below a threshold set at 0.20.

Other concepts: Age

Calculation method: The distribution of population living in household with very low work intensity broken down by activity status, age and sex $(LOW _WI_{at_age/sex/WSTATUS})$ is calculated as the percentage of people living in households with very low work intensity (WI < 0.2) in each activity status, age and sex group. The weight variable used is the personal cross sectional weight PB040.



- The most frequent activity status is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. Consequently, where an individual provides information on his activity status over 12 months, his most frequent activity status will be the status he declares to have occupied for at least 7 months. Individuals who have spent only half or less than the total number of declared months in any activity status are excluded from the computation. People with less than 7 months declared in the calendar of activities are excluded.
- The activity statuses cannot be considered as a perfectly hierarchical structure. Due to the construction of the activity statuses, the subset of the total population 'employed persons' will contain more than the sum of 'employees' and 'employed persons except employees'. The same holds for the subset 'not employed persons'. That is, the breakdowns of 'employed persons' and 'not employed persons' are not exhaustive. This is the case because persons who spend less than half of the reported time in two or more breakdowns of 'employed persons' or 'not employed persons' may qualify as being 'employed person' or 'not employed person' but not any of the breakdowns.
- The most frequent activity status for each month is based on a self-assessment by the interviewees. Therefore, it may not be entirely consistent with the ILO coding that is applied in the European Union Labour Force Survey.
- This indicator measures activity status at the individual level.
- For each working age person (aged 18 to 64) in the household that is not classified as a dependent child, two figures are computed, using the calendar of activities of the previous year:
 - k) the number of months in the previous year which the person has given information about his/her activity status (the 'workable' months)
 - 1) the number of months in the previous year for which the person has been classified as 'at work'
- 'At work' comprises:
 - u) In paid employment, whether full-time or part-time
 - v) Including paid apprenticeship or training under special schemes related to employment
 - w) In self-employment (with or without employees)
 - x) Including unpaid work in family enterprise

This indicator measures work intensity at the household level.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: From 18 to 24 years/from 18 to 59 years/from 25 to 34 years/from 25 to 54 years/from 25 to 59 years/from 35 to 44 years/from 45 to 54 years/ from 55 to 59 years
- Activity Status (WSTATUS): Population/employed persons/employees/employed persons except employees/not employed persons/unemployed persons/retired persons/other inactive persons

Reference period: Survey year for work intensity and sex. Age is the age of the respondent at the end of income reference period. Previous to survey year for activity status.

SAS program: lvhl12.sas

4.3.3.7 People living in households with very low work intensity by income quintile and household type (population aged 0 to 59 years)



Dataset: People living in households with very low work intensity by income quintile and household type (population aged 0 to 59 years)

Dissemination tree code: <u>ilc_lvhl13</u>

Data source: EU-SILC

Description: Persons as percentage of persons living in households with very low intensity in the relevant income quintile and household type breakdowns

Key indicator(s) included in the dataset: People living in households with very low work intensity (Europe 2020, JAF)

Policy relevance: Work intensity is taken into account in a broad range of indicators since it is one of the three dimensions that included in the EU2020 indicators. This indicator refers to people living in households with work intensity less than 0.2. The promotion of employment growth has been high on the agenda of the EU for several decades, to that extent, the overall distribution of population living in households with very low work intensity provides valuable background information.

Statistical population: Population less than 60 years living in private households. People with missing values for equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the

target population

Unit of measurement: Percentage of population living in households with very low work intensity

Main concepts used:

A persons living in household with very low <u>work intensity</u> is a person living in a household with work intensity (WI) below a threshold set at 0.20.

Other concepts: Inter – Quantile interval, Quantile Income, Household types (HHTYP)

Calculation method: The distribution of population living in household with very low work intensity broken down by household type and income quantile $(LOW _WI_{at_HHTYP/quantile})$ is calculated as the percentage of people living in households with very low work intensity (WI < 0.2) in each household type and income quantile group. The weight variable used is the personal cross sectional weight RB050a.

$$LOW_WI_{at_HHTYP/quantile} = \frac{\forall i \text{ where } WI < 0.2_at_HHTYP/quantile}}{\sum_{\forall i \text{ where } WI < 0.2} RB050a_i} \cdot 100$$

- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member
- For each working age person (aged 18 to 64) in the household that is not classified as a dependent child, two figures are computed, using the calendar of activities of the previous year:
 - a) the number of months in the previous year which the person has given information about his/her activity status (the 'workable' months)
 - b) the number of months in the previous year for which the person has been classified as 'at work'
- 'At work' comprises:
 - a) In paid employment, whether full-time or part-time
 - b) Including paid apprenticeship or training under special schemes related to

employment

- c) In self-employment (with or without employees)
- d) Including unpaid work in family enterprise
- This indicator measures work intensity at the household level.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Quantile: Total/first quintile/second quintile/third quintile/fourth quintile/fifth quintile
- Household Type (HHTYP): Total/single person/single person with dependent children/two adults/two adults younger than 65 years/two adults, at least one aged 65 years and over/two adults with one dependent child/two adults with two dependent children/two adults with three or more dependent children/two or more adults without dependent children/two or more adults with dependent children/three or more adults/three or more adults with dependent children/three or more adults/three or more adults with dependent children/households without dependent children/households with dependent children

Reference period: Survey year for work intensity and household type. Income reference period for income variables with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: lvhl13.sas

4.3.3.8 People living in households with very low work intensity by education level (population aged 18 to 59 years)



Dataset: People living in households with very low work intensity by education level (population aged 18 to 59 years)

Dissemination tree code: <u>ilc_lvhl14</u>

Data source: EU-SILC

Description: Persons as percentage of persons living in households with very low work intensity in the relevant education level, age and sex breakdowns

Key indicator(s) included in the dataset: People living in households with very low work intensity (Europe 2020, JAF)

Policy relevance: Work intensity is taken into account in a broad range of indicators since it is one of the three dimensions that included in the EU2020 indicators. This indicator refers to people living in households with work intensity less than 0.2. The promotion of employment growth has been high on the agenda of the EU for several decades, to that extent, the overall distribution of population living in households with very low work intensity provides valuable background information.

Statistical population: Population aged from 18 to 59 living in private households with very low work intensity. People with missing values for education level are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of population living in households with very low work intensity

Main concepts used:

Educational level (attainment) of a person is the highest level of an educational programme the person has successfully completed and the study field of this programme. The educational classification to be used is the International Standard Classification of Education (ISCED 1997) coded according to the seven ISCED-97 categories.

A persons living in household with very low <u>work intensity</u> is a person living in a household with work intensity (WI) below a threshold set at 0.20.

Other concepts: --

Calculation method: The distribution of population living in household with very low work intensity broken down by level of education, age and sex $(LOW _WI_{at_age/sex/ISCED97})$ is calculated as the percentage of people living in households with very low work intensity (WI < 0.2) in each education level, age and sex group. The weight variable used is the personal cross sectional weight PB040.

$$LOW_WI_{at_age/sex/ISCED97} = \frac{\frac{\forall i \text{ where WI<0.2_at_age/gender/ISCED97}}{\sum_{\forall i \text{ where WI<0.2}} PB040_{i}} \cdot 100$$

- ISCED refers to the International Standard Classification of Education, developed by UNESCO. The version of the classification that is applied for this indicator follows the 1997 version of ISCED.
- In face of the diversity of national education systems (with regard to curricula, compulsory schooling ages, equivalences between qualifications-and other elements) one should be careful in making cross-country comparisons.
- For each working age person (aged 18 to 64) in the household that is not classified as a dependent child, two figures are computed, using the calendar of activities of the previous year:
 - a) the number of months in the previous year which the person has given

information about his/her activity status (the 'workable' months)

- b) the number of months in the previous year for which the person has been classified as 'at work'
- 'At work' comprises:
 - a) In paid employment, whether full-time or part-time
 - b) Including paid apprenticeship or training under special schemes related to employment
 - c) In self-employment (with or without employees)
 - d) Including unpaid work in family enterprise
- This indicator measures work intensity at the household level.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: From 18 to 24 years/from 18 to 59 years/from 25 to 34 years/from 25 to 54 years/from 25 to 59 years/ from 35 to 44 years/from 45 to 54 years/from 55 to 59 years
- Education level (ISCED97): All ISCED 1997 levels/pre-primary, primary and lower secondary education (levels 0-2)/upper secondary and post-secondary non-tertiary education (levels 3 and 4) /first and second stage of tertiary education (levels 5 and 6))

Reference period: Survey year for work intensity and education level. Age is the age of the respondent at the end of the income reference period.

SAS program: lvhl14.sas

4.3.3.9 People living in households with very low work intensity by broad group of citizenship (population aged 18 to 59 years)



Dataset: People living in households with very low work intensity by broad group of citizenship (population aged 18 to 59 years) **Dissemination tree code:** <u>ilc_lvhl15</u> **Data source:** EU-SILC **Description:** Persons as percentage of persons living in households with low work intensity in the relevant citizenship group, age and sex breakdowns.

Key indicator(s) included in the dataset: --

Policy relevance: Work intensity is taken into account in a broad range of indicators since it is one of the three dimensions that included in the EU2020 indicators. This indicator refers to people living in households with work intensity less than 0.2. The promotion of employment growth has been high on the agenda of the EU for several decades, to that extent, the overall distribution of population living in households with very low work intensity provides valuable background information.

Statistical population: Population aged from 18 to 59 years living in private households with very low work intensity. People with missing values for citizenship are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of population living in households with very low work intensity

Main concepts used:

A persons living in household with very low <u>work intensity</u> is a person living in a household with work intensity (WI) below a threshold set at 0.20.

Other concepts: Age, Citizenship group (CITIZEN)

Calculation method: The distribution of population living in household with very low work intensity broken down by citizenship group, age and sex $(LOW _WI_{at_age/sex/citizen})$ is calculated as the percentage of people living in households with very low work intensity (WI < 0.2) in each citizenship group, age group and sex group. The weight variable used is the personal cross sectional weight PB040.

$$LOW_WI_{at_age/sex/citizen} = \frac{\sum_{i \text{ where WI} < 0.2_at_age/gender/c_ship}}{\sum_{\forall i \text{ where WI} < 0.2} PB040_{i}} \cdot 100$$

- Citizenship is defined as the particular legal bond between an individual and his/her State, acquired by birth or naturalization, whether by declaration, option, marriage or other means according to the national legislation.
- For persons with multiple citizenship and where one of the citizenship is the one of the country of residence, this latter citizenship is recorded/coded.
- Citizenship is referred to the current (at the time of survey) national boundaries and not the boundaries at the time of the reference period. In the case of citizenships that no longer exist, the present-day borders of the country are used.
- Current EU-SILC question only explores the stock of non-EU nationals, with no information on how long they have been in the country.
- The EU-SILC only covers private households, with persons living in collective households and in institutions for asylum seekers and migrant workers excluded

from the target population

• There is no information on ethnic status of respondents. So ethnic minorities, including the Roma cannot be identified in EU-SILC. In addition, the categorization of the groups into "EU" and "non-EU" is rather broad and the groups distinguished are too large and heterogeneous.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: From 18 to 54 years/from 18 to 59 years/from 25 to 54 years/from 25 to 59 years
- Citizenship group (CITIZEN): EU27-countries except reporting country/non EU27countries nor reporting country/foreign country/reporting country

Reference period: Survey year for sex, broad group of citizenship and work intensity. Age is the age of the respondent at the end of the income reference period.

SAS program: lvhl15.sas

4.3.3.10 People living in households with very low work intensity by broad group of country of birth (population aged 18 to 59 years)

eurostat

Dataset: People living in households with very low work intensity by broad group of country of birth (population aged 18 to 59 years)

Dissemination tree code: <u>ilc_lvhl16</u>

Data source: EU-SILC

Description: Persons as percentage of persons in the total population in the relevant country of birth group, age and sex breakdowns

Key indicator(s) included in the dataset: --

Policy relevance: Work intensity is taken into account in a broad range of indicators since it is one of the three dimensions that included in the EU2020 indicators. This indicator refers to people living in households with work intensity less than 0.2. The promotion of employment growth has been high on the agenda of the EU for several decades, to that extent, the overall distribution of population living in households with very low work intensity provides valuable background information.

Statistical population: Population aged from 18 to 59 years living in private households with very low work intensity. People with missing values for country of birth are excluded. Persons living in collective households and in institutions are generally excluded from the

target population

Unit of measurement: Percentage of population living in households with very low work intensity

Main concepts used:

A persons living in household with very low <u>work intensity</u> is a person living in a household with work intensity (WI) below a threshold set at 0.20.

Other concepts: Age, Country of birth group (C_BIRTH)

Calculation method: The distribution of population living in household with very low work intensity broken down by country of birth group, age and sex $(LOW _WI_{at_age/sex/c_birth})$ is calculated as the percentage of people living in households with very low work intensity (WI < 0.2) in each country of birth group, age group and sex. The weight variable used is the personal cross sectional weight PB040.

$$LOW_WI_{at_age/sex/c_birth} = \frac{\underset{Wi \text{ where WI<0.2_at_age/sex/c_birth}}{\underset{\forall i \text{ where WI<0.2}}{\sum} PB040_{i}} \cdot 100$$

- Country of birth is the country where a person was born, namely the country of usual residence of mother at the time of the birth.
- Country of birth is referred to the current (at the time of survey) national boundaries and not to the boundaries in place at the time of birth.
- In the case of countries that no longer exist (such as parts of the former Soviet Union or others), the present-day borders of the country are used.
- For person born in a place that currently belongs to a country different from the country that the place belonged to at the time of birth, the 'country' which the place belonged to currently (at the time of the survey) is recorded.
- For people born in a place which is now outside the national territory but who feel that they have always been a national citizen, the country of birth should be recorded as according to this citizenship.
- Current EU-SILC question only explores the stock of non-EU nationals, with no information on how long they have been in the country.
- Unlike citizenship, a person's country of birth does not change. The distribution by country of birth is therefore influenced not just by recent migration, but by patterns of migration flows that may have taken place many years previously. Thus, the predominant countries of birth of migrants in a country may reflect particular migration flows that took place decades earlier.
- Patterns of migration may also reflect past colonial and linguistic links, as seen in the long history of migration from the Indian subcontinent to the United Kingdom, in migration between Ireland and the United Kingdom, between Brazil and Portugal and between Ecuador and Spain and in migration from Suriname to the Netherlands.
- The EU-SILC only covers private households, with persons living in collective households and in institutions for asylum seekers and migrant workers excluded from the target population

- Migrants and more particularly recently arrived migrants are likely to be under- covered by EU-SILC. Some migrants will have been missed from the sampling frame (which is designed to ensure a representative coverage of the overall population, rather than specifically migrants). These coverage problems may be hard to assess and correct because of a lack of reliable information on the numbers of migrants in specific areas
- In Member States in which the number of migrants is very small EU-SILC, given its nature as sample survey, is not capable of fully capturing the characteristics of the people concerned.
- There is no information on ethnic status of respondents. In addition, the categorization of the groups into "EU" and "non-EU" is rather broad and the groups distinguished are too large and heterogeneous.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: From 18 to 54 years/from 18 to 59 years/from 25 to 54 years/from 25 to 59 years
- Country of birth group (C_BIRTH): EU27-countries except reporting country/non EU27-countries nor reporting country/foreign country/reporting country

Reference period: Survey year for sex, country of birth group and work intensity. Age is the age of the respondent at the end of the income reference period

SAS program: lvhl16.sas

4.3.3.11 People living in households with very low work intensity by tenure status (population aged 0 to 59 years)



Dataset: People living in households with very low work intensity by tenure status (population aged 0 to 59 years)

Dissemination tree code: <u>ilc_lvhl17</u>

Data source: EU-SILC

Description: Persons (as percentage of persons) living in households with very low work intensity in the relevant tenure status breakdowns.

Key indicator(s) included in the dataset: People living in households with very low work intensity (Europe 2020, JAF)

Policy relevance: Work intensity is taken into account in a broad range of indicators since it is one of the three dimensions that included in the EU2020 indicators. This indicator refers to people living in households with work intensity less than 0.2. The promotion of employment growth has been high on the agenda of the EU for several decades, to that extent; the overall distribution of population living in households with very low work intensity provides valuable background information.

Statistical population: Population less than 60 years living in private households with very low work intensity. People with missing values for low work intensity or tenure status are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of population living in households with very low work intensity

Main concepts used:

A persons living in household with very low <u>work intensity</u> is a person living in a household with work intensity (WI) below a threshold set at 0.20.

(Accommodation) tenure status is defined a) Total b) Owner, with mortgage or loan c) Owner, no outstanding mortgage or housing loan d) Tenant, rent at market price e) Tenant, rent at reduced price or free Tenure status (TENSTA_2).

The variables used are HH020/HH021 in combination with HY100G/HY100N for distinguishing between owners with and without mortgage.

Other concepts: --

Calculation method: The distribution of population living in household with very low work intensity broken down by tenure status group $(LOW _WI_{at_TENURE})$ is calculated as the percentage of people living in households with very low work intensity (*WI*<0.2) in each group of tenure status. The weight variable used is the personal cross sectional weight (RB050a).

 $LOW_WI_{at_TENURE} = \frac{\forall i \text{ where } WI < 0.2_at_TENURE}{\sum_{\forall i \text{ where } WI < 0.2} RB050a_i} \cdot 100$

- For each working age person (aged 18 to 64) in the household that is not classified as a dependent child, two figures are computed, using the calendar of activities of the previous year:
 - c) the number of months in the previous year which the person has given information about his/her activity status (the 'workable' months)
 - d) the number of months in the previous year for which the person has been classified as 'at work'
- 'At work' comprises:
 - e) In paid employment, whether full-time or part-time
 - f) Including paid apprenticeship or training under special schemes related to employment

- g) In self-employment (with or without employees)
- h) Including unpaid work in family enterprise
- This indicator measures work intensity at the household level.
- The accommodation tenure status is assigned to each household member

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
 - Time
- Tenure Status (TENURE): Total/Owner, with mortgage or loan/Owner, no outstanding mortgage or housing loan/Tenant, rent at market price/Tenant, rent at reduced price or free

Reference period: Survey year for tenure status and work intensity.

SAS program: lvhl17.sas (VAR.TENSTA_2.sas)

4.3.3.12 People living in households with very low work intensity by NUTS region (population aged 0 to 59 years)



Dataset: People living in households with very low work intensity by NUTS region (population aged 0 to 59 years)

Dissemination tree code: <u>ilc_lvhl21</u>

Data source: EU-SILC

Description: Persons as percentage of persons living in households with very low work intensity in the total population in the relevant NUTS region breakdown

Key indicator(s) included in the dataset: --

Policy relevance: Work intensity is taken into account in a broad range of indicators since it is one of the three dimensions that included in the EU2020 indicators. This indicator refers to people living in households with work intensity less than 0.2. The promotion of employment growth has been high on the agenda of the EU for several decades, to that extent, the overall distribution of population living in households with very low work intensity provides valuable background information.

Statistical population: Population less than 60 years living in private households with very low work intensity. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of population living in households with very low work intensity/ Percentage of total population-upper boundary of the 95% confidence interval/ percentage of total population- lower boundaryof

Main concepts used:

A persons living in household with very low <u>work intensity</u> is a person living in a household with work intensity (WI) below a threshold set at 0.20.

Other concepts: NUTS region

Calculation method: The distribution of population living in household with very low work intensity broken down by NUTS region $(LOW _WI_{at_NUTS})$ is calculated as the percentage of people living in households with very low work intensity (WI < 0.2) in each NUTS region. The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$LOW_WI_{at_NUTS} = \frac{\sum_{i \text{ where } WI < 0.2_at_NUTS}}{\sum_{i \text{ where } WI < 0.2} RB050a_i} \cdot 100$$

Methodological issues:

- One should be careful in making cross-country comparisons, because the number of regions per countries varies a great deal.
- One issue in developing regional indicators concerns the choice of the type of units to serve as 'regions'. For a number of substantive and practical reasons, geographical-administrative regions, specifically NUTS regions at various level of classification, appear as the most appropriate choice for EU countries.
- NUTS units are not defined in exactly the same way in different countries and can differ greatly in size and homogeneity
- From an analytical point of view, 2-digit level of NUTS is recommended. Note that for 1 in 3 EU countries the 2 digit level corresponds to the country level.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)/ NUTS1 (Iceland, Norway, Croatia, Switzerland, EU Member States excluding Austria, Germany, France, Netherlands, Portugal, United Kingdom)/ NUTS2 (Iceland, Norway, Switserland, EU Member States excluding Austria, Belgium, Germany, France, Greece, Hungary, Netherlands, Portugal, United Kingdom)
- Time

Reference period: Survey year for NUTS region and work intensity.

SAS program: lvhl21.sas

4.3.3.13 People living in households with very low work intensity by degree of urbanisation (population aged 0 to 59 years)



Dataset: People living in households with very low work intensity by degree of urbanisation (population aged 0 to 59 years)

Dissemination tree code: <u>ilc_lvhl23</u>

Data source: EU-SILC

Description: Persons as percentage of persons living in households with very low work intensity in the relevant degree of urbanisation breakdown.

Key indicator(s) included in the dataset: --

Policy relevance: Work intensity is taken into account in a broad range of indicators since it is one of the three dimensions that included in the EU2020 indicators. This indicator refers to people living in households with work intensity less than 0.2. The promotion of employment growth has been high on the agenda of the EU for several decades; to that extent the overall distribution of population living in households with very low work intensity provides valuable background information.

Statistical population: Population less than 60 years living in private households with very low work intensity. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of population living in households with very low work intensity.

Main concepts used:

A persons living in household with very low <u>work intensity</u> is a person living in a household with work intensity (WI) below a threshold set at 0.20.

Other concepts: Degree of urbanisation (DEG_URB)

Calculation method: The distribution of population living in household with very low work intensity broken down by degree of urbanisation $(LOW _WI_{at_deg_urb})$ is calculated as the percentage of people living in households with very low work intensity (*WI*<0.2) in each degree of urbanisation group. The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$LOW_WI_{at_deg_urb} = \frac{\bigvee_{i \text{ where } WI < 0.2_at_deg_urb}}{\sum_{\forall i \text{ where } WI < 0.2} RB050a_i} \cdot 100$$

Methodological issues:

• There is no single, universally preferred definition of rural areas, nor is there a single rural definition that can serve all policy purposes. EU-SILC survey uses a definition

based on human density.

- Following the human density criterion is possible urban areas to be characterised as rural, especially in the case of densely populated areas that are part of regions dominated by mountains with small unincorporated communities.
- Narrowly defined definitions can direct attention to specific populations; they also have the potential consequence of eliminating from policy eligibility places that should be covered.
- The proposed 3-category breakdown, focusing on population density rather than on land use, has been retained by the Task Force because it is an acceptable compromise from a user point of view, because it doesn't necessitate additional burden on respondents or statistical offices and because this classification is currently already in use in several harmonised social surveys.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)
- Time
- Degree of urbanisation (DEG_URB): densely-populated area (at least 500 inhabitants/km²/intermediate urbanized area (between 100 and 499 inhabitants/km²/thinly-populated area (less than 100 inhabitants/km²)

Reference period: Survey year for degree of urbanization and work intensity.

SAS program: _lvhl23.sas

4.3.3.14 Labour transitions by labour status



Dataset: Labour transitions by employment status **Dissemination tree code:** <u>ilc_lvhl30</u> Data source: --

Description: Distribution (%) of working-age persons by employment status in the survey year (t); shown separately for each combination of sex and employment status one year before the survey year (t-1).

Key indicator(s) included in the dataset: Transitions by employment status (JAF indicator)

Policy relevance: Assessing the performance of labour markets with static variables can give a misleading impression of the underlying labour market dynamics. An alternative to monitor labour market dynamics is to follow transitions of individuals across different types of employment status (e.g., employed, unemployed, inactive) and/or different types of

employment (fixed-term, permanent, high-/low-wage). This sheds light not only on the extent of mobility but also the changes in overall quality of employment. Transitions from full-time employment to part-time employment or unemployment may lead to economic hardship and social stress for all sectors of society. The opposite is true for transitions to full-time employment. These effects are felt most keenly by persons whose current job could not provide them with enough financial resources to be self-sufficient, who are least able to effectively transition to new employment when such action becomes necessary.

Statistical population: Population aged between 16 and 64 years living in private households. People with less than 7 months declared in the calendar of activities are excluded. People with missing values for activity status are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of total population

Main concepts used:

The Adjusted self – defined current economic status (PL31) is a slightly different categorisation of the EU – SILC variable PL031 ('Self –defined current economic status'). The adjusted variable PL31 allows for 9 categories instead of the 11 categories of the initial variable PL031. Employment status (WSTATUS), which is used in this dataset, consists of aggregates of the adjusted current economic statuses (PL31); see section "Breakdowns" below.

Other concepts: -

Calculation method: The dataset shows the percentages of persons who move between employment statuses (or retain the same status) between two consecutive years. Therefore, the weight variable used is the longitudinal weight (two year duration) RB062.

For each class of persons, specified by a combination of sex and employment status in the year before the reference one (WSTATUS), the percentage that undergoes transition of type TRANS in the reference year is computed as

$$TRANS_{at_sex/WSTATUS} = \frac{\sum_{i=at_sex/WSTATUS} RB062_{i}}{\sum_{\forall i=at_wSTATUS} RB062_{i}} \cdot 100$$

- The target variable captures the person's own perception of their main activity at present. It differs from the ILO concept to the extent that people's own perception of their main status differs from the strict definitions used in the ILO definitions. For instance, many people who would regard themselves as full-time students or homemakers may be classified as ILO- employed if they have a part-time job. Similarly, some people who consider themselves 'unemployed' may not meet the strict ILO criteria of taking active steps to find work and being immediately available.
- The self-declared main activity status is, in principle, the status that most time was spent on, but no criteria have been specified explicitly.
- The category inactive persons include students, retired persons, permanently disabled

persons, persons in compulsory military community or service, persons fulfilling domestic tasks and care responsibilities and other inactive persons

Breakdowns: The dataset breaks the reference population down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway)
- Time: the survey year
- Sex (SEX): Total/Male/Female
- Employment status (WSTATUS) in the year before the reference one: Employed persons working full-time/employed persons working part-time/unemployed persons/inactive persons

and provides the distribution of the population in each reference cell by

• Type of transition (TRANS1Y) during the reference year: Transition to full-time work/transition to part-time work/ transition to employed person/transition to unemployment/transition to inactivity

Reference period: Survey year for employment status.

SAS program: L_lvhl30.sas

4.3.3.15 Labour transitions by type of contract



Dataset: Labour transitions by type of contract **Dissemination tree code:** <u>ilc_lvhl32</u> **Data source:** --

Description: Distribution (%) of working-age persons by employment status in the survey year (t). Employment status is a combination of employment or not and permanence of employment or not. Shown separately for each combination of sex and employment status one year before the survey year (t-1).

Key indicator(s) included in the dataset: Transitions by type of contract (JAF indicator)

Policy relevance: Assessing the performance of labour markets with static variables can give a misleading impression of the underlying labour market dynamics. An alternative to monitor labour market dynamics is to follow transitions of individuals across different types of employment status (e.g., employed, unemployed, inactive) and/or different types of employment (fixed-term, permanent, high-/low-wage). This sheds light not only on the extent of mobility but also the changes in overall quality of employment. Transitions from permanent employment to temporary employment or unemployment may lead to economic

hardship and social stress for all sectors of society. The opposite is true for transitions to permanent employment. Persons lacking long-term job security, when such action becomes necessary feel these effects most keenly.

Statistical population: Population aged between 16 and 64 years living in private households. People with less than 7 months declared in the calendar of activities are excluded. People with missing values for activity status are excluded. Persons living in collective households and in institutions are generally excluded from the target population **Unit of measurement:** Percentage of total population

Main concepts used:

The **self** – **defined working status** is the status (employed – permanent job employees, employed – temporary job employees, employed except employees, unemployed, students, retired, other inactive) that individuals declare themselves as their main activity at present. Employment status (WSTATUS), which is used in this dataset, consists of aggregates of the self – defined working statuses; see section "Breakdowns" below (Self – Defined Working Status (SELF_WSTATUS))

Other concepts: -

Calculation method: The dataset shows the percentages of persons who move between employment statuses (or retain the same status) between two consecutive years. The weight variable used is the Longitudinal weight estimate – Two year duration (SEL_WGT), an estimate of longitudinal weight (two year duration) RB062 for the selected respondent. For each class of persons, specified by a combination of sex and employment status in the year before the reference one (WSTATUS), the percentage that undergoes transition of type TRANS in the reference year is computed as

$$TRANS_{at_sex/W_STATUS} = \frac{\sum_{i_at_sex/W_STATUS} SEL_WGT_{i}}{\sum_{\forall i_at_W_STATUS} SEL_WGT_{i}} \cdot 100$$

- The target variable captures the person's own perception of their main activity at present. It differs from the ILO concept to the extent that people's own perception of their main status differs from the strict definitions used in the ILO definitions. For instance, many people who would regard themselves as full-time students or homemakers may be classified as ILO- employed if they have a part-time job. Similarly, some people who consider themselves 'unemployed' may not meet the strict ILO criteria of taking active steps to find work and being immediately available.
- The self-declared main activity status is, in principle, the status that most time was spent on, but no criteria have been specified explicitly.
Breakdowns: The dataset breaks the reference population down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway)
- Time: the survey year
- Sex (SEX): Total/Male/Female
- Employment status (WSTATUS) in the year before the reference one: Employees with a permanent job/employees with a temporary job/employed persons except employees/ unemployed persons/inactive persons

and provides the distribution of the population in each reference cell by

• Type of transition (TRANS1Y) during the reference year: Transition to unemployment/transition to inactivity/ transition to employed person except employee/ transition to employee with a permanent job/transition to employee with a temporary job

Reference period: Survey year for employment status.

SAS program: L_lvhl32.sas

4.3.3.16 Labour transitions by type of contract – Changes in employment security



Dataset: Labour transitions by type of contract – Changes in employment security **Dissemination tree code:** <u>ilc_lvhl33</u>

Data source: --

Description: Distribution (%) of working-age persons according to their transition to employment of lower, same or higher job security in the reference year (t); shown separately for each combination of sex and employment status / type of employment contract one year before the reference one (t-1).

Key indicator(s) included in the dataset: -

Policy relevance: Assessing the performance of labour markets with static variables can give a misleading impression of the underlying labour market dynamics. An alternative to monitor labour market dynamics is to follow transitions of individuals across different types of employment status (e.g., employed, unemployed, inactive) and/or different types of employment (fixed-term, permanent, high-/low-wage). This sheds light not only on the extent of mobility but also the changes in overall quality of employment.

Statistical population: Population aged between 16 and 64 years living in private households. Persons with missing values for self – defined current economic status, employment status and type of contract are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of total population

Main concepts used:

The **self** – **defined working status** is the status (employed – permanent job employees, employed – temporary job employees, employed except employees, unemployed, students, retired, other inactive) that individuals declare themselves as their main activity at present. (Self – Defined Working Status (SELF_WSTATUS))

The **employment security transition level** variable is concerned with the definition of 'good' and bad employment security transitions (Employment security transition level (W_SEC)).

Other concepts: Age

Calculation method: The dataset shows the percentages of persons who move between levels of employment security (or retain the same level) between two consecutive years. Therefore, the weight variable used is the Longitudinal weight estimate – Two year duration (SEL_WGT), an estimate of longitudinal weight (two year duration) RB062 for the selected respondent.

For each class of persons, specified by a combination of sex and employment status / type of employment contract in the year before the reference one (CONTRACT_TYP), the percentage that undergoes transition of type TRANS in the reference year is computed as

$$TRANS_{at_sex/contract_typ/security_transition_level} = \frac{\forall_{i_at_sex/contract_typ/security_transition_level}}{\sum_{\forall_{i_at_sex/contract_typ}} SEL_WGT_{i}} \cdot 100$$

Methodological issues:

- The target variable captures the person's own perception of their main activity at present. It differs from the ILO concept to the extent that people's own perception of their main status differs from the strict definitions used in the ILO definitions. For instance, many people who would regard themselves as full-time students or homemakers may be classified as ILO- employed if they have a part-time job. Similarly, some people who consider themselves 'unemployed' may not meet the strict ILO criteria of taking active steps to find work and being immediately available.
- The self-declared main activity status is, in principle, the status that most time was spent on, but no criteria have been specified explicitly.

Breakdowns: The dataset breaks the reference population down by

• Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU

Member states, Iceland, Norway)

- Time: the survey year
- Sex (SEX): Total/Male/Female
- Employment status / type of employment contract (WSTATUS): Population/ employees with a permanent job/employees with a temporary job/ employed persons except employees/ unemployed persons/ students/ retired persons/ other inactive persons

and provides the distribution of the population in each reference cell by

• Type of transition (TRANS1Y) during the reference year: Transition to the same or higher employment security as previous year/ transition to less employment security than last year

Reference period: Survey year for employment status / type of employment contract. Age is the age of the respondent at the end of income reference period.

SAS program: L_lvhl33.sas

4.3.3.17 Labour transitions by pay level



Dataset: Labour transitions by pay level **Dissemination tree code:** <u>ilc_lvhl34</u> Data source: --

Description: Distribution (%) of working-age persons by type of income class they move to in the survey year (t); shown separately for each income class during the last year.

Key indicator(s) included in the dataset: Transitions by pay level (JAF indicator)

Policy relevance: Assessing the performance of labour markets with static variables can give a misleading impression of the underlying labour market dynamics. An alternative to monitor labour market dynamics is to follow transitions of individuals across different types of employment status (e.g., employed, unemployed, inactive) and/or different types of employment (fixed-term, permanent, high-/low-wage). This sheds light not only on the extent of mobility but also the changes in overall quality of employment. Transitions to lower-pay employment or unemployment may lead to economic hardship and social stress for all sectors of society. The opposite is true for transitions to higher-pay employment. Persons whose current job could not provide them with enough financial resources to be self-sufficient when such action becomes necessary feel these effects most keenly.

Statistical population: Population aged between 16 and 64 years living in private households. People with less than 7 months declared in the calendar of activities are excluded

People with missing values for equivalised disposable income and activity status are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of total population

Main concepts used: -

Other concepts: Inter – Quantile interval, Quantile Income

Calculation method: The dataset shows the percentages of persons who move between income classes (or stay in the same class) between two consecutive years. The weight variable used is the Longitudinal weight estimate – Two year duration (SEL_WGT), an estimate of longitudinal weight (two year duration) RB062 for the selected respondent. For each class of persons, specified by their income class in the year before the reference one (Quantile), the percentage that undergoes transition of type TRANS in the reference year is

Methodological issues: -

computed as

Breakdowns: The dataset breaks the reference population down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states excluding Ireland, Iceland, Norway)
- Time: the survey year
- Sex (SEX): Total/Males/Females
- Income decile (QUANTILE) in the year before the reference one: No income/first decile/second decile/third decile/fourth decile/fifth decile/sixth decile/seventh decile/eighth decile/ninth decile/tenth decile

and provides the distribution of the population in each reference cell by

• Type of transition (TRANS1Y) during the reference year: Transition to 1 income decile up/transition to more than 1 income decile up/transition to 1 income decile down/transition to more than 1 income decile down/transition to no income/no change

Reference period: Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: L_lvhl34.sas

4.3.3.18 Labour transitions by employment status and pay level – Changes in qualifications



Dataset: Labour transitions by employment status and pay level – Changes in qualifications **Dissemination tree code:** <u>ilc_lvhl35</u>

Data source: --

Description: Distribution (%) of working-age persons according to their transition to employment of lower, same or higher qualification level (employment status and pay) in the survey year (t); shown separately for each combination of sex and employment status during the last year.

Key indicator(s) included in the dataset: -

Policy relevance: Assessing the performance of labour markets with static variables can give a misleading impression of the underlying labour market dynamics. An alternative to monitor labour market dynamics is to follow transitions of individuals across different types of employment status (e.g., employed, unemployed, inactive) and/or different types of employment (fixed-term, permanent, high-/low-wage). This sheds light not only on the extent of mobility but also the changes in overall quality of employment. While it is of course interesting to look at these transitions, additional differentiations have the potential to offer much more detailed and policy – relevant conclusions. This dataset analyze the movements from low paid to high paid jobs or from unemployment/inactivity to employment. This is especially relevant in times of the crisis because being low paid might also lead to non-accumulation and deterioration of human capital. Hence, not only movements from employment to unemployment are 'bad' but also job-to-job transitions with an induced downgrading.

Statistical population: Population aged between 16 and 64 years living in private households. Persons with less than 7 months declared in the calendar of activities are excluded. Persons with missing values for activity status are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of total population

Main concepts used:

The **qualification transition level** variable is concerned with the definition of 'good' and 'bad' labour market transitions. Currently 'good' transitions are the ones from unemployment/inactivity to employment or movements from low paid to high paid jobs (Qualification transition level (W_QUAL)).

The **most frequent activity status** is the status (employed – employees, employed except employees, unemployed, retired, other inactive) that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available (Activity Status (ACTSTA)).

Other concepts: Age

Calculation method: The dataset shows the percentages of persons who move between

qualifications levels (or retain the same level) between two consecutive years. Therefore, the weight variable used is the Longitudinal weight estimate – Two year duration (SEL_WGT), an estimate of longitudinal weight (two year duration) RB062 for the selected respondent. For each class of persons, specified by a combination of sex and employment status in the year before the reference one (W_STATUS), the percentage that undergoes transition of type TRANS in the reference year is computed as

$$TRANS_{at_sex/w_status/qualification_transition_level} = \frac{\sum_{i_at_sex/w_status/qualification_transition_level}}{\sum_{\forall i_at_sex/w_status}} \cdot 100$$

Methodological issues:

- The most frequent activity status is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. Consequently, where an individual provides information on his activity status over 12 months, his most frequent activity status will be the status he declares to have occupied for at least 7 months. Individuals who have spent only half or less than the total number of declared months in any activity status are excluded from the computation. People with less than 7 months declared in the calendar of activities are excluded.
- The activity statuses cannot be considered as a perfectly hierarchical structure. Due to the construction of the activity statuses, the subset of the total population 'employed persons' will contain more than the sum of 'employees' and 'employed persons except employees'. That is, the breakdowns of 'employed persons' are not exhaustive. This is the case because persons who spend less than half of the reported time in two or more breakdowns of 'employed persons' may qualify as being 'employed person' but not any of the breakdowns.
- The most frequent activity status for each month is based on a self-assessment by the interviewees. Therefore, it may not be entirely consistent with the ILO coding that is applied in the European Union Labour Force Survey.
- This indicator measures activity status at the individual level.

Breakdowns: The dataset breaks the reference population down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states excluding Iceland, Norway)
- Time: the survey year
- Sex (SEX): Total/Male/Female
- Employment status (WSTATUS): Population/ employed persons/unemployed persons/ students/ other inactive persons

and provides the distribution of the population in each reference cell by

• Type of transition (TRANS1Y) during the reference year: Transition to the same or higher qualification level (employment status and pay) as previous year/Transition to lower qualification level (employment status and pay) than last year

Reference period: Previous to survey year for employment status. Age is the age of the respondent at the end of income reference period.

SAS program: L_lvhl35.sas

4.3.3.19 Children living in households with very low work intensity by highest education level of their parents (population aged 0 to 17 years)



Dataset: Children living in households with very low work intensity by highest education level of their parents (population aged 0 to 17 years) **Dissemination tree code:** ilc lyhl60

Data source: EU-SILC

Description: Children (as percentage of persons) in the total population aged 0 to 17 years with very low work intensity by highest education level of their parents.

Key indicator(s) included in the dataset: People living in households with very low work intensity (Europe 2020, JAF)

Policy relevance:

The promotion and protection of the rights of the child is one of the objectives of the EU 2020 Agenda. The Europe 2020 Strategy sets out a vision for the 21st century of a Europe where the children of today will have a better education, access to the services and to the resources they need to grow up.¹⁴

Statistical population: Population aged from 0 to 17 years living in private households with very low work intensity. People with missing values for low work intensity, age or parents' highest educational level are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of population (aged 0 to 17) living in households with very low work intensity

Main concepts used:

A person living in household with low <u>work intensity</u> is a person living in a household with work intensity (WI) below a threshold set at 0.20.

Educational level (attainment) of a person is the highest level of an educational programme the person has successfully completed and the study field of this programme. The educational classification to be used is the International Standard Classification of Education (ISCED 1997) coded according to the seven ISCED-97 categories. The expression 'level successfully completed' is associated with obtaining a certificate or a

¹⁴ European Commission – "An EU Agenda for the Rights of the child" [COM(2011) 60].

diploma when there is a certification. In cases where there is no certification, successful completion must be associated with full attendance or acquired competences to access the upper level. Persons who have not completed their studies should be coded according to the highest level they have completed.

Other concepts: <u>Age</u>

Calculation method: The distribution of population aged 0 to 17 years, living in household with very low work intensity, broken down by parents' highest level of education $(LOW_WIagex_{at_HHISCED})$ is calculated as the percentage of people aged 0 to 17 years, living in households with very low work intensity (*WI*<0.2) in each parents' level of education group. The weight variable used is the personal cross sectional weight RB050a

$$LOW_WIagex_{at_HHISCED} = \frac{\forall i \text{ where } WI < 0.2_at_HHISCED}}{\sum_{\forall i \text{ where } WI < 0.2} RB050a_{i}} \cdot 100$$

, where *agex* takes the values: less than 6 years, less than 18 years, from 6 to 11 years, from 12 to 17 years.

Methodological issues:

- Highest educational level of children's parents refers to children living in a household with one or both parents and to the highest level of education attained by (at least one of) the parents. Data are classified according to the International Standard Classification of Education (ISCED): low education corresponds to ISCED levels 0-2 (pre-primary, primary and lower secondary education); medium education corresponds to ISCED levels 3 and 4 (upper secondary and post-secondary non-tertiary education) and high education corresponds to ISCED levels 5 and 6 (tertiary education).
- In face of the diversity of national education systems (with regard to curricula, compulsory schooling ages, equivalences between qualifications and other elements) one should be careful in making cross-country comparisons.
- Persons who have never been in education (and/or illiterate) are excluded from the calculation of the indicator.
- For each working age person (aged 18 to 64) in the household that is not classified as a dependent child, two figures are computed, using the calendar of activities of the previous year:
 - c) the number of months in the previous year which the person has given information about his/her activity status (the 'workable' months)
 - d) the number of months in the previous year for which the person has been classified as 'at work'
- 'At work' comprises:
 - e) In paid employment, whether full-time or part-time
 - f) Including paid apprenticeship or training under special schemes related to employment
 - g) In self-employment (with or without employees)
 - h) Including unpaid work in family enterprise
- This indicator measures work intensity at the household level.

Breakdowns: The dataset provides data for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Gender (SEX): Total/Male/Female
- Age: Less than 6 years/Less than 18 years/From 6 to 11 years/from 12 to 17 years
- Educational Level (ISCED97): Pre-primary, primary and lower secondary education (levels 0-2)/Upper secondary and post-secondary non-tertiary education (levels 3 and 4)/First and second stage of tertiary education (levels 5 and 6)

Reference period: Survey year for Educational Level (ISCED97) and work intensity. Age is the age of the respondent at the end of the income reference period.

SAS program: lvhl60.sas (VAR.HHISCED.sas)

4.3.4 Housing conditions (ilc_lvho)

4.3.4.1 Distribution of population by degree of urbanisation, dwelling type and income group



Dataset: Distribution of population by degree of urbanisation, dwelling type and income group

Dissemination tree code: <u>ilc_lvho01</u> **Data source**: EU-SILC

Description: This indicator describes the population density of given areas (degree of urbanisation), of dwelling types and income groups.

Key indicator(s) included in the dataset: -

Policy relevance: One of the key challenges of Europe 2020 and in particular the poverty and social exclusion element is to provide decent, in terms of quality and cost, housing for everyone.

The aim of this indicator is twofold: to describe the population in relation to the three breakdown variables separately, but also to explore whether any of the two household variables (degree of urbanisation, dwelling type) has impact on income poverty that a household might experience. Conclusions for this analysis should shed light into the risk factors of income poverty that should be taken into consideration by national governments developing their housing policies.

There is already evidence that the recent enlargements of the EU (EU Agricultural Economic briefs – May 2011 - <u>http://ec.europa.eu/agriculture/agrista/economic-briefs/01_en.pdf</u>), the rural population as well as the number of people at risk of poverty in

thinly populated (rural) areas has considerably increased (from 75 million to 116 million and from 14 million to 26 million, respectively). Therefore, the reduction of the number of poor people in rural areas of the EU is crucial for the Europe 2020 headline target to lift at least 20 million people out of the risk of poverty by 2020.

Statistical population: All individuals living in private households. Households and individuals with missing any of the breakdown variables are excluded from the calculation. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage (%)

Main concepts used: -

Other concepts: Degree of urbanisation (DEG_URB), Equivalised disposable Income (EQ_INC), Poverty status (ARPTXXi), Median Equivalised disposable Income after social transfers (MEDIAN20)

Calculation method: The algorithm calculates summary statistics (weighted sum of individuals/persons in households) for all possible combinations of the following target (Degree of urbanization - DB100, Dwelling type - HH010) and derived (Poverty status (ARPTXXi)) variables:

DB100 × HH010 × ARPT60i

Although the information on the housing characteristics refers to the household level, this indicator is defined at individual level, i.e. it has to be calculated by individual and not by household. Individual weights based on Adjusted Cross Sectional Weight (RB050a) are therefore used.

Density rate_{*i_at_breakdown*} =
$$\frac{\sum_{i_at_each_breakdown_level} RB050a_i}{\sum_{\forall i_at_breakdown} RB050a_i} \cdot 100$$

Methodological issues:

• While severe material deprivation is influenced by the local cost of living, the atrisk-of-poverty rate is set at the same level for an entire country. So the income of someone living in London is compared to the same threshold as that for someone living in rural Wales, although the cost of living is likely to be far higher in London. Furthermore, housing costs are not factored into disposable income. As housing costs tend to be higher in cities, and more people tend to rent in cities than in rural areas, it is likely that once income has been adjusted to take housing costs into account, a more accurate picture emerges. Other aspects of the cost of living, such as transport costs, also need to be factored in. Transport costs may be higher in rural areas, because of the need for a car, and longer trip distances than in urban areas, but the impact of these costs depends on income levels, as well as on the availability and cost of public transport **Breakdowns:** The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)
- Time
- Degree of urbanization (DEG_URB) (Densely-populated area (at least 500 inhabitants/Km²), Intermediate urbanized area (between 100 and 499 inhabitants/Km²), Thinly-populated area (less than 100 inhabitants/Km²), Total)
- Dwelling type (BUILDING) (House, Detached house, Semi-detached house, Flat, Flat in a building with less than ten dwellings, Flat in a building with ten or more dwellings)
- Poverty Status (INCGRP) (Below 60% of median equivalised income, Above 60% of median equivalised income, Total)

Reference period: Survey year for degree of urbanization. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _lvho01.sas (VAR_ARPTXX.sas)

4.3.4.2 Distribution of population by tenure status, type of household and income group



Dataset: Distribution of population by tenure status, type of household and income group **Dissemination tree code:** <u>ilc_lvho02</u> **Data source:** EU-SILC

Description: This indicator describes the population density of given tenure statues, of household types and income groups.

Key indicator(s) included in the dataset: None

Policy relevance: One of the key challenges of Europe 2020 and in particular the poverty and social exclusion element, is to provide decent, in terms of quality and cost, housing for everyone.

The aim of this indicator is twofold: to describe the population in relation to the three breakdown variables separately, but also to explore whether any of the two household variables (tenure status and household type) has impact on income poverty that a household might experience. Conclusions for this analysis should shed light into the risk factors of income poverty that should be taken into consideration by national governments developing their housing policies.

Household composition has quite often an impact on the cumulating income poverty. Data analysis has shown that the risk for people living in single-households is significantly higher

compared to people in households consisting of two adults (if we assume the latter group as the reference group). Moreover, the fact of having or not a dependent child does not influence significantly the risk of poverty or social exclusion while the number of adults in the household does.

Moreover, in most countries acceding owners (with mortgage) run a relatively lower risk of income poverty than outright owners (with no mortgage). The impact of tenure status on income poverty is also strong for tenants.

Statistical population: All individuals living in private households. Households and individuals with missing any of the breakdown variables are excluded from the calculation. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage (%)

Main concepts used: -

Other concepts: Tenure status (TENSTA_2), Household types (HHTYP), Equivalised disposable Income (EQ_INC), Median Equivalised disposable Income after social transfers (MEDIAN20)

Calculation method: The algorithm calculates summary statistics (weighted sum of individuals/persons in households) for all possible combinations of Tenure status (TENSTA_2) and Household types (HHTYP) for the three levels of Poverty status (ARPTXXi) variables:

TENSTA_2 × HHTYP, for the three levels of ARPT60i (B_MD60, A_MD60, Total)

Although the information on the housing characteristics refers to the household level, this indicator is defined at individual level, i.e. it has to be calculated by individual and not by household. Individual weights based on Adjusted Cross Sectional Weight (RB050a) are therefore used.

Density rate_{*i_at_breakdown*} =
$$\frac{\sum_{i_at_each_breakdown_level}}{\sum_{\forall i_at_breakdown} RB050a_i} \cdot 100$$

Methodological issues:

• While severe material deprivation is influenced by the local cost of living, the at-riskof-poverty rate is set at the same level for an entire country. So the income of someone living in London is compared to the same threshold as that for someone living in rural Wales, although the cost of living is likely to be far higher in London. Furthermore, housing costs are not factored into disposable income. As housing costs tend to be higher in cities, and more people tend to rent in cities than in rural areas, it is likely that once income has been adjusted to take housing costs into account, a more accurate picture emerges. Other aspects of the cost of living, such as transport costs, also need to be factored in. Transport costs may be higher in rural areas, but the impact of these costs depends on income levels, as well as on the availability and cost of public transport

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household type (HHTYP) (Single person, One adult younger than 64 years, One adult younger than 65 years, One adult older than 65 years, Single person with dependent children, Single female, Single male, Two adults, Two adults younger than 65 years, Two adults at least one aged 65 years and over, Two adults with one dependent child, Two adults with two dependent children, Two adults with three or more dependent children, Three or more adults, Three or more adults with dependent children, Households without dependent children, Households with dependent children, Total)
- Tenure status (TENURE) (Owner/Owner with mortgage or loan/Owner no outstanding mortgage or housing loan/Tenant/Tenant rent at market price/Tenant rent at reduced price or free/Total)
- Poverty Status (INCGRP) (Below 60% of median equivalised income/Above 60% of median equivalised income, Total)

Reference period: Survey year for tenure status. Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _lvho02.sas (VAR_TENSTA_2.sas, VAR_HT_NADU_NDCH.sas, VAR_HT1.sas, VAR_ARPTXX.sas)

4.3.4.3 Average number of rooms per person by tenure status and dwelling type from 2003



Dataset: Average number of rooms per person by tenure status and dwelling type from 2003 **Dissemination tree code:** <u>ilc_lvho03</u>

Data source: EU-SILC

Description: This indicator describes the weighted mean in the distribution of number of rooms per 'equivalent person' living in the household in the respective tenure status and dwelling type group.

Key indicator(s) included in the dataset: --

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. Quality of housing conditions is assessed by the availability of sufficient space in the dwelling. This indicator provides information about average space available to people living in a dwelling, as defined by the number of rooms of the household over the household's equivalised size.

Statistical population: All individuals living in private households. Households and individuals with missing any of the breakdown variables are excluded from the calculation. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Average

Main concepts used:

Dwelling type (HH010) refers to any independent structure containing one or more dwellings, rooms or other spaces, covered by a roof and enclosed within external walls or dividing walls which extend from the foundations to the roof.

Number of rooms available to the household (HH030). A room is defined as a space of a housing unit of at least 4 square meters such as normal bedrooms, dining rooms, living rooms and habitable cellars and attics with a high over 2 meters and accessible from inside the unit.

Other concepts: Tenure status (TENSTA_2)

Calculation method: Weighted average number of rooms (*ANREQP*) per 'equivalent person' living in the household and in the respective tenure status and dwelling type group, is calculated as weighted average of the ratio of number of rooms available in the household (HH030) over the Equivalised Household size (EQ_SS). The weight variable used is the adjusted cross sectional weight RB050a.

$$ANGEQP_{at_TENURE/BUILDING} = \frac{\sum_{\forall i_at_TENURE/BUILDING} RB050a_i \times \frac{HH030_i}{EQ_SS_i}}{\sum_{\forall i_at_TENURE/BUILDING} RB050a_i}$$

Methodological issues:

- The accommodation tenure status is assigned to each household member.
- Building is generally defined as a room of suite of rooms and its accessories (e.g. lobbies, corridors) in a permanent building or structurally separated part thereof which by the way it has been built, rebuilt, or converted is designed for habitation by one private household. It should have separate access to the street, direct or via a garden or grounds, or to a common space within the building (staircase, passage, gallery, etc.), but it need not necessarily have a bathroom or toilet available for the exclusive use of its occupants. Accommodations that are situated in buildings that are for use other than housing (schools) and fixed habitation like a hat or cave are included.
- A building with two entrances will be considered as one single building if one can

access all apartments from both entrances; otherwise, it will be two separate buildings.

- House means that no internal space or maintenance and other services are normally shared with other dwellings. Sharing of a garden or other exterior areas is not precluded.
- Apartments or flats in a building normally share some internal space or maintenance and other services with other units in the building.
- Other kinds of accommodation includes accommodations that are situated in buildings that are for use other than housing (schools, ...) and fixed habitations like a hut or a cave.
- A room is defined as a space of a housing unit of at least 4 square meters such as normal bedrooms, dining rooms, living rooms and habitable cellars and attics with a high over 2 meters and accessible from inside the unit.
- Kitchens are not counted unless the cooking facilities are in a room used for other purposes; only exclude it if the space is used only for cooking. Thus for example, kitchen-cum-dining room is included as one room in the count of rooms.
- The following space of a housing unit does not count as rooms: bathrooms, toilets, corridors, utility rooms and lobbies. Verandas, lounges and conservatories do count only if they are used all year round.
- A room used solely for business use is excluded, but is included if shared between private and business use.
- If the dwelling is shared by more than 1 household all rooms are counted for the owner/tenant except those exclusively used by the other households.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Tenure status (TENURE): Total/ Owner/ Tenant
- Dwelling type (BUILDING): Total/ House/ Flat/ Others

Reference period: Survey year for tenure status, dwelling type and number of rooms available to the household.

SAS program: _lvho03.sas

4.3.4.4 Average number of rooms per person by type of household and income group from 2003



Dataset: Average number of rooms per person by type of household and income group from 2003

Dissemination tree code: <u>ilc_lvho04</u> **Data source**: EU-SILC

Description: This indicator describes the weighted mean in the distribution of number of rooms per 'equivalent person' living in the household in the respective income and household type group.

Key indicator(s) included in the dataset: --

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. Quality of housing conditions is assessed by the availability of sufficient space in the dwelling. This indicator provides information about average space available to people living in a dwelling, as defined by the number of rooms of the household over the household's equivalised size.

Statistical population: All individuals living in private households. Households and individuals with missing any of the breakdown variables are excluded from the calculation. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Average

Main concepts used:

Number of rooms available to the household (HH030). A room is defined as a space of a housing unit of at least 4 square meters such as normal bedrooms, dining rooms, living rooms and habitable cellars and attics with a high over 2 meters and accessible from inside the unit.

Other concepts: Household types (HHTYP), Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC)

Calculation method: Weighted average number of rooms (*ANREQP*) per equivalised person living in the household and in the respective household type and income group, is calculated as weighted average of the ratio of number of rooms available in the household (HH030) over the Equivalised Household size (EQ_SS). The weight variable used is the adjusted cross sectional weight RB050a.

$$ANREQP_{at_HHTYP/INCGRP} = \frac{\sum_{\forall i_at_HHTYP/INCGRP} RB050a_i \times \frac{HH030_i}{EQ_SS_i}}{\sum_{\forall i_at_HHTYP/INCGRP} RB050a_i}$$

Methodological issues:

- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.
- A room is defined as a space of a housing unit of at least 4 square meters such as normal bedrooms, dining rooms, living rooms and habitable cellars and attics with a high over 2 meters and accessible from inside the unit.
- Kitchens are not counted unless the cooking facilities are in a room used for other purposes; only exclude it if the space is used only for cooking. Thus for example, kitchen-cum-dining room is included as one room in the count of rooms.
- The following space of a housing unit does not count as rooms: bathrooms, toilets, corridors, utility rooms and lobbies. Verandas, lounges and conservatories do count only if they are used all year round.
- A room used solely for business use is excluded, but is included if shared between private and business use.
- If the dwelling is shared by more than 1 household all rooms are counted for the owner/tenant except those exclusively used by the other households.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household type (HHTYP): Total/ Single person/ One adult younger than 65 years/ One adult older than 65 years/ Single person with dependent children/ Single female/ Single male/ Two adults/ Two adults younger than 65 years/ Two adults at least one 65 years and over/ Two adults with one dependent child/ Two adults with two dependent children/ Two adults with three or more dependent children/ Three or more adults/ Three or more adults with dependent children/ Households without dependent children/ Households with dependent children
- Income Group (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK

(survey year).

SAS program: _lvho04.sas

4.3.4.5 Overcrowding rate (ilc_lvho_or)

4.3.4.5.1 Overcrowding rate by age, sex and poverty status – Total population



Dataset: Overcrowding rate by age, sex and poverty status **Dissemination tree code:** ilc_lvho05a **Data source:** EU-SILC

Description: The overcrowding rate by age, sex and poverty status describes the proportion of people living in an overcrowded dwelling for the different age, sex and poverty status groups. Overcrowding refers to the number of rooms available to the household, the household's size, as well as its members' ages and family situation.

Key indicator(s) included in the dataset: Overcrowding rate by age, sex and poverty status (total population) (OMC)

Policy relevance:

With more than 120 million people in the EU at risk of poverty or social exclusion, EU leaders have pledged to bring at least 20 million people out of poverty and social exclusion by 2020.

Shortage of adequate housing is a long-standing problem in most European countries. Over the last decade, worsening affordability, homelessness, social and housing polarisation and new forms of housing deprivation have been an increasing concern for public policy.

One of the key dimensions in assessing the quality of housing conditions is the availability of sufficient space in the dwelling. Overcrowded dwellings are also one component of severe material deprivation, which indicates the importance of this factor to social exclusions.

Statistical population: All individuals living in private households. Households and individuals with missing any of the components of overcrowding (see Calculation method) or missing any of the breakdown variables are excluded from the calculation. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage (%) of people in the total population

Main concepts used:

Overcrowded household/dwelling (Overcrowding**):** A person is considered as living in an overcrowded household if the household does not have at its disposal a minimum number of rooms equal to:

- one room for the household;
- one room per couple in the household;
- one room for each single person aged 18 or more;
- one room per pair of single people of the same sex between 12 and 17 years of age;
- one room for each single person between 12 and 17 years of age and not included in the previous category;
- one room per pair of children under 12 years of age.

Other concepts: Age, Household types (HHTYP), Poverty status (ARPTXXi), Equivalised disposable Income (EQ_INC), Median Equivalised disposable Income after social transfers (MEDIAN20)

Calculation method: The indicator is computed by comparing for each individual the total number of rooms available to the household (HH030) with this minimum number of rooms needed for the household. If HH030 for the respective house is below the minimun number of rooms needed, then the household is characterised as overcrowded (see Overcrowding). Although the information on the overcrowded dwelling refers to the household level, this indicator is defined at individual level, i.e. it has to be calculated by individual and not by household. Individual weights are therefore used and are based on the Adjusted Cross Sectional Weight (RB050a).

$$OVERCROWDING_{at_age/sex/incgrp} = \frac{\forall i_where_HH030$$

Methodological issues:

- The calculation includes single-person households and considers them as deprived if they live in a studio with bedroom not separated from the living room. This calculation based on the total population should systematically be used if the overcrowding criteria are analysed together with other housing quality criteria.
- Overcrowding is clearly higher among the poor after imputed rents are added to the income. The size of the dwelling and the estimated values of imputed rents are positively correlated it is only to be expected that cash income poor who are able to afford to live in bigger dwellings are lifted above the new poverty risk threshold. Furthermore, some of the indebted owners are repositioned, by negative imputed rents due to high mortgage interests, under the new poverty risk threshold (i.e. when imputed rent is added to the income).

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)
- Time
- Sex: Male/Female/Total
- Age: <6/6-11/12-17/<18/18-64/65 and over/Total
- Poverty Status (INCGRP): Below 60% of median equivalised income/Above 60% of median equivalised income/ Total

Reference period: Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mlvho05_06.sas (VAR_OVERCROWDED.sas, VAR_ARPTXX.sas)

4.3.4.5.2 Overcrowding rate by household type – Total population



Dataset: Overcrowding rate by household type **Dissemination tree code:**ilc_lvho05b **Data source:** EU-SILC

Description: The overcrowding rate by household type describes the proportion of people living in an overcrowded dwelling for the different types of households. Overcrowding is defined by the number of rooms available to the household, the household's size, as well as its members' ages and family situation.

Key indicator(s) included in the dataset: Overcrowding rate by household type (total population) (OMC)

Policy relevance:

With more than 120 million people in the EU at risk of poverty or social exclusion, EU leaders have pledged to bring at least 20 million people out of poverty and social exclusion by 2020.

Shortage of adequate housing is a long-standing problem in most European countries. Over the last decade, worsening affordability, homelessness, social and housing polarisation and new forms of housing deprivation have been an increasing concern for public policy.

One of the key dimensions in assessing the quality of housing conditions is the availability of sufficient space in the dwelling. Overcrowded dwellings are also one component of severe material deprivation, which indicates the importance of this factor to social exclusions.

Statistical population: All individuals living in private households. Households and individuals with missing any of the components of overcrowding (see Calculation method) or missing any of the breakdown variables are excluded from the calculation. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage (%) of people in the total population

Main concepts used:

Overcrowded household/dwelling (Overcrowding**):** A person is considered as living in an overcrowded household if the household does not have at its disposal a minimum number of rooms equal to:

- one room for the household;
- one room per couple in the household;
- one room for each single person aged 18 or more;
- one room per pair of single people of the same sex between 12 and 17 years of age;
- one room for each single person between 12 and 17 years of age and not included in the previous category;
- one room per pair of children under 12 years of age.

Other concepts: Household types (HHTYP)

Calculation method: The indicator is computed by comparing for each individual the total number of rooms available to the household (HH030) with this minimum number of rooms needed for the household. If HH030 for the respective house is below the minimun number of rooms needed, then the household is characterised as overcrowded (see Overcrowding).

Although the information on the overcrowded dwelling refers to the household level, this indicator is defined at individual level, i.e. it has to be calculated by individual and not by household. Individual weights are therefore used and are based on the Adjusted Cross Sectional Weight (RB050a).

$$OVERCROWDING_{at_HHTYP} = \frac{\forall i_where_HH030 < Number_Of_Rooms_Needed_at_HHTYP}{\sum_{\forall i_at_HHTYP} RB050a_{i}} \cdot 100$$

Methodological issues:

- The calculation includes single-person households and considers them as deprived if they live in a studio with bedroom not separated from the living room. This calculation based on the total population should systematically be used if the overcrowding criteria are analysed together with other housing quality criteria.
- Overcrowding is clearly higher among the poor after imputed rents are added to the income. The size of the dwelling and the estimated values of imputed rents are positively correlated it is only to be expected that cash income poor who are able to afford to live in bigger dwellings are lifted above the new poverty risk threshold. Furthermore, some of the indebted owners are repositioned, by negative imputed rents due to high mortgage interests, under the new poverty risk threshold (i.e. when imputed rent is added to the income).

Breakdowns: The dataset provides percentages for the whole population and also broken down by

• Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)

- Time
- Household type (HHTYP): Single person/One adult younger than 65 years/One adult older than 65 years/Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years/Two adults – at least one aged 65 years and over/Two adults with one dependent child/Two adults with two dependent children/Two adults with three or more dependent children/Two or more adults without dependent children/Two or more adults with dependent children/Three or more adults/Three or more adults with dependent children/Households without dependent children/Households with dependent children/Total

Reference period: Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mlvho05_06.sas (VAR_OVERCROWDED.sas, VAR_HT1.sas)

4.3.4.5.3 Overcrowding rate by tenure status – Total population



Dataset: Overcrowding rate by tenure status **Dissemination tree code:** ilc_lvho05c **Data source:** EU-SILC

Description: The overcrowding rate by tenure status describes the proportion of people living in an overcrowded dwelling for the different levels of tenure status, as defined by the number of rooms available to the household, the household's size, as well as its members' ages and family situation.

Key indicator(s) included in the dataset: Overcrowding rate by tenure status (total population) (OMC)

Policy relevance: With more than 120 million people in the EU at risk of poverty or social exclusion, EU leaders have pledged to bring at least 20 million people out of poverty and social exclusion by 2020.

Shortage of adequate housing is a long-standing problem in most European countries. Over the last decade, worsening affordability, homelessness, social and housing polarisation and new forms of housing deprivation have been an increasing concern for public policy.

One of the key dimensions in assessing the quality of housing conditions is the availability of sufficient space in the dwelling. Overcrowded dwellings are also one component of severe material deprivation, which indicates the importance of this factor to social exclusions.

Statistical population: All individuals living in private households. Households and individuals with missing any of the components of overcrowding (see Calculation method) or missing any of the breakdown variables are excluded from the calculation. Persons living in collective households and in institutions are generally excluded from the target

population.

Unit of measurement: Percentage (%) of people in the total population

Main concepts used:

Overcrowded household/dwelling (Overcrowding**):** A person is considered as living in an overcrowded household if the household does not have at its disposal a minimum number of rooms equal to:

- one room for the household;
- one room per couple in the household;
- one room for each single person aged 18 or more;
- one room per pair of single people of the same sex between 12 and 17 years of age;
- one room for each single person between 12 and 17 years of age and not included in the previous category;
- one room per pair of children under 12 years of age.

Other concepts: Tenure status (TENSTA_2)

Calculation method: The indicator is computed by comparing for each individual the total number of rooms available to the household (HH030) with this minimum number of rooms needed for the household. If HH030 for the respective house is below the minimum number of rooms needed, then the household is characterised as overcrowded (see Overcrowding).

Although the information on the overcrowded dwelling refers to the household level, this indicator is defined at individual level, i.e. it has to be calculated by individual and not by household. Individual weights are therefore used and are based on the Adjusted Cross Sectional Weight (RB050a).

$$OVERCROWDING_{at_tenure} = \frac{\forall i_where_HH030$$

Methodological issues:

- The calculation includes single-person households and considers them as deprived if they live in a studio with bedroom not separated from the living room. This calculation based on the total population should systematically be used if the overcrowding criteria are analysed together with other housing quality criteria.
- Overcrowding is clearly higher among the poor after imputed rents are added to the income. The size of the dwelling and the estimated values of imputed rents are positively correlated it is only to be expected that cash income poor who are able to afford to live in bigger dwellings are lifted above the new poverty risk threshold. Furthermore, some of the indebted owners are repositioned, by negative imputed rents due to high mortgage interests, under the new poverty risk threshold (i.e. when imputed rent is added to the income).

Breakdowns: The dataset provides percentages for the whole population and also broken down by

• Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)

- Time
- Tenure status (TENURE): Owner with mortgage or loan/Owner no outstanding mortgage or housing loan/Tenant rent at market price/Tenant rent at reduced price or free/Total

Reference period: Survey year for tenure status. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mlvho05_06.sas (VAR_OVERCROWDED.sas, VAR_TENSTA_2.sas)

4.3.4.5.4 Overcrowding rate by degree of urbanisation – Total population



Dataset: Overcrowding rate by degree of urbanisation **Dissemination tree code:** ilc_lvho05d **Data source**: EU-SILC

Description: The overcrowding rate describes the proportion of people living in an overcrowded dwelling, as defined by the number of rooms available to the household, the household's size, as well as its members' ages and family situation.

Key indicator(s) included in the dataset: Overcrowding rate by degree of urbanisation (total population) (OMC)

Policy relevance: With more than 120 million people in the EU at risk of poverty or social exclusion, EU leaders have pledged to bring at least 20 million people out of poverty and social exclusion by 2020.

Shortage of adequate housing is a long-standing problem in most European countries. Over the last decade, worsening affordability, homelessness, social and housing polarisation and new forms of housing deprivation have been an increasing concern for public policy.

One of the key dimensions in assessing the quality of housing conditions is the availability of sufficient space in the dwelling. Overcrowded dwellings are also one component of severe material deprivation, which indicates the importance of this factor to social exclusions.

Statistical population: All individuals living in private households. Households and individuals with missing any of the components of overcrowding (see Calculation method) or missing any of the breakdown variables are excluded from the calculation. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage (%) of people in the total population

Main concepts used:

Overcrowded household/dwelling (Overcrowding**):** A person is considered as living in an overcrowded household if the household does not have at its disposal a minimum number of rooms equal to:

- one room for the household;
- one room per couple in the household;
- one room for each single person aged 18 or more;
- one room per pair of single people of the same sex between 12 and 17 years of age;
- one room for each single person between 12 and 17 years of age and not included in the previous category;
- one room per pair of children under 12 years of age.

Other concepts: Degree of urbanisation (DEG_URB)

Calculation method: The indicator is computed by comparing for each individual the total number of rooms available to the household (HH030) with this minimum number of rooms needed for the household. If HH030 for the respective house is below the minimun number of rooms needed, then the household is characterised as overcrowded (see Overcrowding). Although the information on the overcrowded dwelling refers to the household level, this indicator is defined at individual level, i.e. it has to be calculated by individual and not by household. Individual weights are therefore used and are based on the Adjusted Cross Sectional Weight (RB050a).

$$OVERCROWDING_{at_DEG_URB} = \frac{\forall i_where_HH030 < Number_Of_Rooms_Needed_at_DEG_URB}{\sum_{\forall i_at_DEG_URB} RB050a_i} \cdot 100$$

Methodological issues:

- The calculation includes single-person households and considers them as deprived if they live in a studio with bedroom not separated from the living room. This calculation based on the total population should systematically be used if the overcrowding criteria are analysed together with other housing quality criteria.
- Overcrowding is clearly higher among the poor after imputed rents are added to the income. The size of the dwelling and the estimated values of imputed rents are positively correlated it is only to be expected that cash income poor who are able to afford to live in bigger dwellings are lifted above the new poverty risk threshold. Furthermore, some of the indebted owners are repositioned, by negative imputed rents due to high mortgage interests, under the new poverty risk threshold (i.e. when imputed rent is added to the income).

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)
- Time
- Degree of urbanization (Densely-populated area (at least 500 inhabitants/Km²), Intermediate urbanized area (between 100 and 499 inhabitants/Km²), Thinlypopulated area (less than 100 inhabitants/Km²), Total)

Reference period: Survey year for degree of urbanisation. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mlvho05_06.sas (VAR_OVERCROWDED.sas)

4.3.4.5.5 Overcrowding rate by income quintile - Total population



Dataset: Overcrowding rate by income quintile **Dissemination tree code:** <u>ilc_lvho05q</u> **Data source:** EU-SILC

Description: The overcrowding rate by income quintile describes the proportion of people living in an overcrowded dwelling for the different income quintile groups. Overcrowding is defined by the number of rooms available to the household, the household's size, as well as its members' ages and family situation.

Key indicator(s) included in the dataset: Overcrowding rate by income quintile (total population) (OMC)

Policy relevance:

With more than 120 million people in the EU at risk of poverty or social exclusion, EU leaders have pledged to bring at least 20 million people out of poverty and social exclusion by 2020.

Shortage of adequate housing is a long-standing problem in most European countries. Over the last decade, worsening affordability, homelessness, social and housing polarisation and new forms of housing deprivation have been an increasing concern for public policy.

One of the key dimensions in assessing the quality of housing conditions is the availability of sufficient space in the dwelling. Overcrowded dwellings are also one component of severe material deprivation, which indicates the importance of this factor to social exclusions.

Statistical population: All individuals living in private households. Households and individuals with missing any of the components of overcrowding (see Calculation method) or with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage (%) of people in the total population

Main concepts used:

Overcrowded household/dwelling (<u>Overcrowding</u>): A person is considered as living in an overcrowded household if the household does not have at its disposal a minimum number of rooms equal to:

- one room for the household;
- one room per couple in the household;
- one room for each single person aged 18 or more;
- one room per pair of single people of the same gender between 12 and 17 years of age;

- one room for each single person between 12 and 17 years of age and not included in the previous category;
- one room per pair of children under 12 years of age.

Other concepts: Income Quintile, Household types (HHTYP)

Calculation method: The indicator is computed by comparing for each individual the total number of rooms available to the household (HH030) with this minimum number of rooms needed for the household. If HH030 for the respective house is below the minimum number of rooms needed, then the household is characterised as overcrowded (see Overcrowding). Although the information on the overcrowded dwelling refers to the household level, this indicator is defined at individual level, i.e. it has to be calculated by individual and not by household. Individual weights are therefore used and are based on the Adjusted Cross Sectional Weight (RB050a).

$$OVERCROWDING_{at_quantile} = \frac{\forall i_where_HH030 < Number_Of_Rooms_Needed_at_quantile}{\sum_{\forall i_at_quantile} RB050a_{i}} \cdot 100$$

Methodological issues:

- The calculation includes single-person households and considers them as deprived if they live in a studio with bedroom not separated from the living room. This calculation based on the total population should systematically be used if the overcrowding criteria are analysed together with other housing quality criteria.
- Overcrowding is clearly higher among the poor after imputed rents are added to the income. The size of the dwelling and the estimated values of imputed rents are positively correlated it is only to be expected that cash income poor who are able to afford to live in bigger dwellings are lifted above the new poverty risk threshold. Furthermore, some of the indebted owners are repositioned, by negative imputed rents due to high mortgage interests, under the new poverty risk threshold (i.e. when imputed rent is added to the income).

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Quantile (QUANTILE): Total/First quintile/Second quintile/Third quintile/Fourth quintile/Fifth quintile

Reference period: Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mlvho05_06.sas (VAR_OVERCROWDED.sas, VAR_ARPTXX.sas)

4.3.4.5.6 Overcrowding rate by age, sex and poverty status – Population without single-person households



Dataset: Overcrowding rate by age, sex and poverty status – Population without single person households

Dissemination tree code: ilc_lvho06 **Data source**: EU-SILC

Description: The overcrowding rate describes the proportion of people living in an overcrowded dwelling, as defined by the number of rooms available to the household, the household's size, as well as its members' ages and family situation.

Key indicator(s) included in the dataset: None

Policy relevance: With more than 120 million people in the EU at risk of poverty or social exclusion, EU leaders have pledged to bring at least 20 million people out of poverty and social exclusion by 2020.

Shortage of adequate housing is a long-standing problem in most European countries. Over the last decade, worsening affordability, homelessness, social and housing polarisation and new forms of housing deprivation have been an increasing concern for public policy.

One of the key dimensions in assessing the quality of housing conditions is the availability of sufficient space in the dwelling. Overcrowded dwellings are also one component of severe material deprivation, which indicates the importance of this factor to social exclusions.

This particular indicator excludes single-person households. By applying this constraint we exclude from the overcrowding rate cases of single-person lives in a studio with bedroom not separated from the living room.

Statistical population: All individuals living in private households excluding single person households. Households and individuals with missing any of the components of overcrowding (see Calculation method) or missing any of the breakdown variables are excluded from the calculation.

Unit of measurement: Percentage (%)

Main concepts used:

Overcrowded household/dwelling: A person is considered as living in an overcrowded household if the household does not have at its disposal a minimum number of rooms equal to:

- one room for the household;
- one room per couple in the household;
- one room for each single person aged 18 or more;
- one room per pair of single people of the same sex between 12 and 17 years of age;
- one room for each single person between 12 and 17 years of age and not included in the previous category;

• one room per pair of children under 12 years of age.

Other concepts: Age, Poverty status (ARPTXXi), Overcrowding

Calculation method: The indicator is computed by comparing for each individual the total number of rooms available to the household (HH030) with this minimum number of rooms needed for the household. If HH030 for the respective house is below the minimum number of rooms needed, then the household is characterised as overcrowded (see Overcrowding). Although the information on the overcrowded dwelling refers to the household level, this indicator is defined at individual level, i.e. it has to be calculated by individual and not by household. Individual weights are therefore used and are based on the Adjusted Cross Sectional Weight (RB050a).

For the calculation of this indicator we exclude individuals living in single-person households.

$$OVERCROWDING_{at_age/sex/incgrp} = \frac{\forall i_where_HH030$$

Methodological issues:

- The calculation excludes single-person households
- Overcrowding is clearly higher among the poor after imputed rents are added to the income. The size of the dwelling and the estimated values of imputed rents are positively correlated it is only to be expected that cash income poor who are able to afford to live in bigger dwellings are lifted above the new poverty risk threshold. Furthermore, some of the indebted owners are repositioned, by negative imputed rents due to high mortgage interests, under the new poverty risk threshold (i.e. when imputed rent is added to the income).

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)
- Time
- Sex (Male, Female, Total)
- Age (<6, 6-11, 12-17, <18, 18-64, 65 and over, total)
- Poverty Status (INCGRP) (Below 60% of median equivalised income, Above 60% of median equivalised income, Total)

Reference period: Survey year for sex. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mlvho05_06.sas (VAR_OVERCROWDED.sas, VAR_ARPTXX.sas,)

4.3.4.5.7 Overcrowding rate by income quintile - Population without single-person households



Dataset: Overcrowding rate by income quintile – Population without single person households

Dissemination tree code: <u>ilc_lvho06q</u> **Data source**: EU-SILC

Description: The overcrowding rate describes the proportion of people living in an overcrowded dwelling, as defined by the number of rooms available to the household, the household's size, as well as its member's income situation.

Key indicator(s) included in the dataset: Overcrowding rate by income quintile

Policy relevance: With more than 120 million people in the EU at risk of poverty or social exclusion, EU leaders have pledged to bring at least 20 million people out of poverty and social exclusion by 2020.

Shortage of adequate housing is a long-standing problem in most European countries. Over the last decade, worsening affordability, homelessness, social and housing polarisation and new forms of housing deprivation have been an increasing concern for public policy.

One of the key dimensions in assessing the quality of housing conditions is the availability of sufficient space in the dwelling. Overcrowded dwellings are also one component of severe material deprivation, which indicates the importance of this factor to social exclusions.

This particular indicator excludes single-person households. By applying this constraint we exclude from the overcrowding rate cases of single-person lives in a studio with bedroom not separated from the living room.

Statistical population: All individuals living in private households excluding single person households. Households and individuals with missing any of the components of overcrowding (see Calculation method) or with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage (%)

Main concepts used:

Overcrowded household/dwelling: A person is considered as living in an overcrowded household if the household does not have at its disposal a minimum number of rooms equal to:

- one room for the household;
- one room per couple in the household;
- one room for each single person aged 18 or more;
- one room per pair of single people of the same gender between 12 and 17 years of age;
- one room for each single person between 12 and 17 years of age and not included in the previous category;
- one room per pair of children under 12 years of age.

Other concepts: Income Quintile, Household types (HHTYP)

Calculation method: The indicator is computed by comparing for each individual the total number of rooms available to the household (HH030) with this minimum number of rooms needed for the household. If HH030 for the respective house is below the minimum number of rooms needed, then the household is characterised as overcrowded (see Overcrowded). Although the information on the overcrowded dwelling refers to the household level, this indicator is defined at individual level, i.e. it has to be calculated by individual and not by household. Individual weights are therefore used and are based on the Adjusted Cross Sectional Weight (RB050a).

For the calculation of this indicator we exclude individuals living in single-person households.

$$OVERCROWDING_{at_quantile} = \frac{\forall i_where_HH030 < Number_Of_Rooms_Needed_at_quantile}{\sum_{\forall i_at_quantile} RB050a_{i}} \cdot 100$$

Methodological issues:

- The calculation excludes single-person households
- Overcrowding is clearly higher among the poor after imputed rents are added to the income. The size of the dwelling and the estimated values of imputed rents are positively correlated it is only to be expected that cash income poor who are able to afford to live in bigger dwellings are lifted above the new poverty risk threshold. Furthermore, some of the indebted owners are repositioned, by negative imputed rents due to high mortgage interests, under the new poverty risk threshold (i.e. when imputed rent is added to the income).

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Quantile (QUANTILE): Total/First quintile/Second quintile/Third quintile/Fourth quintile/Fifth quintile

Reference period: Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mlvho05_06.sas (VAR_OVERCROWDED.sas,)

4.3.4.6 Housing cost burden (ilc_lvho_hc)

4.3.4.6.1 Housing cost overburden rate by age, sex and poverty status



Dataset: <u>Housing cost overburden rate</u> by age, sex and poverty status **Dissemination tree code:** <u>ilc_lvho07a</u> **Data source:** EU-SILC

Description: Percentage of persons in the population (or of the respective breakdown level) living in households where the total housing costs ('net' of housing allowances) represent more than 40 % of disposable income ('net' of housing allowances)

Key indicator(s) included in the dataset: Housing cost overburden by age, sex and poverty status (OMC), Housing cost overburden for children (0-17) (JAF), Housing cost overburden for working age adults at-risk-of poverty: Percentage of people aged 18-64 at-risk-of poverty and who live in household where total housing costs exceed 40% of the total disposable household income (JAF)

Policy relevance:

Shortage of adequate housing is a long-standing problem in most European countries. Over the last decade, worsening affordability, homelessness, social and housing polarisation and new forms of housing deprivation have been an increasing concern for public policy. With the crisis and rise in unemployment, some countries report more defaults on housing loans and repossessions. Low incomes and high costs are also responsible for increased evictions. Member States have reacted with measures to protect mortgage holders, strengthen income support and improve the supply of social and public housing. In some cases, targeted measures have been introduced, such as accommodation for the homeless and plans for energy efficiency¹⁵.

Statistical population: All individuals living in private households. People with missing values for equivalised disposable income, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage (%) of people in the total population

Main concepts used:

Housing cost ('net' of housing allowances) refer to monthly costs connected with the households right to live in the accommodation. The costs of utilities (water, electricity, gas and heating) resulting from the actual use of the accommodation are also included.

Disposable income means gross income less income tax, regular taxes on wealth, employees', self-employed and unemployed (if applicable) compulsory social insurance contributions, employers' social insurance contributions and inter- household transfers paid.

¹⁵Joint Report on Social Protection and Social Iclusion (2010)

Housing allowances: The Housing Function refers to interventions by public authorities to help households meet the cost of housing. An essential criterion for defining the scope of a Housing allowance is the existence of a qualifying means-test for the benefit. It includes rent benefit and benefit to owner-occupier, while it excludes social housing policy organized through the fiscal system (i.e. tax benefits) and all capital transfers (in particular investment grants).

Other concepts: Age, Poverty status (ARPTXXi), Equivalised disposable Income (EQ_INC), Median Equivalised disposable Income after social transfers (MEDIAN20), Household cost burden (HCB)

Calculation method: The first step is to compute the

Household cost burden (HCB). The HCB threshold was set at 40 % of the total disposable household income. Although all information used for its calculation refers to the household level, this indicator is defined at individual level, i.e. HCB has to be calculated by individual and not by household. Individual weights are therefore used and are based on the Adjusted Cross Sectional Weight (RB050a).

$$HH_OVERBURDEN_{at_age/sex/incgrp} = \frac{\sum_{i \text{ where HCB}>40\% \text{ at_age/sex/incgrp}}}{\sum_{\forall i_age/sex/incgrp}} \cdot 100,$$

Methodological issues:

Components that have been included in housing costs are: gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), regular maintenance and repairs¹⁶ and the cost of utilities (water, electricity, gas and heating) and in addition:

- OWNERS: Mortgage interest payments¹⁷ (net of any tax relief), structural insurance, mandatory services and charges (sewage removal, refuse removal, etc.), taxes
- TENANTS (at market price or at reduce price): Rent payments, structural insurance (if paid by the tenants), services and charges (sewage removal, refuse removal, etc.) (if paid by the tenants), taxes on dwelling (if applicable)
- RENT FREE: gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance (if paid by the rent free tenant), services and charges (sewage removal, refuse removal, etc.) (if paid by the rent free tenant), taxes on dwelling (if applicable)

For housing cost items not included in the rent but paid like cost of the utilities, sewage removal, structural insurance, etc. a value has been imputed.

Other issues to be taken into consideration when analysing this indicator, are the following:

• Housing allowances are not fully comparable for all countries and discrepancies have been reported by a number of countries (see <u>2009 Comparative EU</u> <u>Intermediate Quality Report</u>)

¹⁶ Only the regular maintenance and repairs should be included. According to the COICOP/HBS: 'regular maintenance or repairs of the dwelling are distinguished by two features: first, they are activities that have to be undertaken regularly in order to maintain the dwelling in good working order; second, they do not change the dwelling's performance, capacity or expected service life.

¹⁷ Included only in case of mortgage taken for the purpose of buying the main dwelling

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states excluding Germany, Iceland, Norway, Croatia, Switzerland)
- Time
- Sex: Male/Female/Total
- Age: <6/ 6-11/12-17/ <18/18-24/ 18-64/65 and over/ Total
- Poverty Status (INCGRP): Below 60% of median equivalised income, Above 60% of median equivalised income, Total

Reference period: Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mlvho07.sas, VAR_HY20_EQ_INCXX.sas

4.3.4.6.2 Housing cost overburden rate by income quintile



Dataset: <u>Housing cost overburden rate</u> by income quintile **Dissemination tree code:** <u>ilc_lvho07b</u> **Data source:** EU-SILC

Description: Percentage of persons in the population (or of the respective breakdown level) living in households where the total housing costs ('net' of housing allowances) represent more than 40 % of disposable income ('net' of housing allowances)

Key indicator(s) included in the dataset: Housing cost overburden by income quintile (OMC)

Policy relevance: One of the key challenges of Europe 2020 and in particular the poverty and social exclusion element, is to provide decent, in terms of quality and cost, housing for everyone.

Shortage of adequate housing is a long-standing problem in most European countries. Over the last decade, worsening affordability, homelessness, social and housing polarisation and new forms of housing deprivation have been an increasing concern for public policy. With the crisis and rise in unemployment, some countries report more defaults on housing loans and repossessions. Low incomes and high costs are also responsible for increased evictions. Member States have reacted with measures to protect mortgage holders, strengthen income support and improve the supply of social and public housing. In some cases, targeted measures have been introduced, such as accommodation for the homeless and plans for energy efficiency¹⁸.

¹⁸Joint Report on Social Protection and Social Iclusion (2010)

Statistical population: All individuals living in private households. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage (%) of people in the total population

Main concepts used:

Housing cost ('net' of housing allowances) refer to monthly costs connected with the households right to live in the accommodation. The costs of utilities (water, electricity, gas and heating) resulting from the actual use of the accommodation are also included.

Disposable income means gross income less income tax, regular taxes on wealth, employees', self-employed and unemployed (if applicable) compulsory social insurance contributions, employers' social insurance contributions and inter- household transfers paid.

Housing allowances: The Housing Function refers to interventions by public authorities to help households meet the cost of housing. An essential criterion for defining the scope of a Housing allowance is the existence of a qualifying means-test for the benefit. It includes rent benefit and benefit to owner-occupier, while it excludes social housing policy organized through the fiscal system (i.e. tax benefits) and all capital transfers (in particular investment grants).

Other concepts: Quantile Income, Inter – Quantile interval, Equivalised disposable Income (EQ INC).

Household cost burden (HCB)

Calculation method: The first step is to compute the

Household cost burden (HCB). The HCB threshold was set at 40 % of the total disposable household income. Although all information used for its calculation refers to the household level, this indicator is defined at individual level, i.e. HCB has to be calculated by individual and not by household. Individual weights are therefore used and are based on the Adjusted Cross Sectional Weight (RB050a).

$$HH_OVERBURDEN_{at_quantile} = \frac{\sum_{i=1}^{N} RB050a_{i}}{\sum_{i=1}^{N} RB050a_{i}} \cdot 100$$

Methodological issues:

Components that have been included in housing costs are: gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), regular maintenance and repairs¹⁹ and the cost of utilities (water, electricity, gas and heating) and in addition:
OWNERS: Mortgage interest payments²⁰ (net of any tax relief), structural insurance,

¹⁹ Only the regular maintenance and repairs should be included. According to the COICOP/HBS: 'regular maintenance or repairs of the dwelling are distinguished by two features: first, they are activities that have to be undertaken regularly in order to maintain the dwelling in good working order; second, they do not change the dwelling's performance, capacity or expected service life.

mandatory services and charges (sewage removal, refuse removal, etc.), taxes

- TENANTS (at market price or at reduce price): Rent payments, structural insurance (if paid by the tenants), services and charges (sewage removal, refuse removal, etc.) (if paid by the tenants), taxes on dwelling (if applicable)
- RENT FREE: gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance (if paid by the rent free tenant), services and charges (sewage removal, refuse removal, etc.) (if paid by the rent free tenant), taxes on dwelling (if applicable)

For housing cost items not included in the rent but paid like cost of the utilities, sewage removal, structural insurance, etc. a value has been imputed.

Other issues to be taken into consideration when analysing this indicator, are the following:

 Housing allowances are not fully comparable for all countries and discrepancies have been reported by a number of countries (see <u>2009 Comparative EU Intermediate</u> <u>Quality Report</u>)

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states excluding Germany, Iceland, Norway, Croatia, Switzerland)
- Time
- Income quintile (QUANTILE): $1^{st}/2^{nd}/3^{rd}/4^{th}/5^{th}$ quintile

Reference period: Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mlvho07.sas, VAR_HY20_EQ_INCXX.sas

4.3.4.6.3 Housing cost overburden rate by tenure status



Dataset: <u>Housing cost overburden rate</u> by tenure status **Dissemination tree code:** <u>ilc_lvho07c</u> **Data source:** EU-SILC

Description: Percentage of persons in the population (or of the respective breakdown level) living in households where the total housing costs ('net' of housing allowances) represent more than 40 % of disposable income ('net' of housing allowances)

Key indicator(s) included in the dataset: Housing cost overburden by tenure status (OMC)

 $^{^{20}}$ Included only in case of mortgage taken for the purpose of buying the main dwelling
Policy relevance: One of the key challenges of Europe 2020 and in particular the poverty and social exclusion element, is to provide decent, in terms of quality and cost, housing for everyone.

Shortage of adequate housing is a long-standing problem in most European countries. Over the last decade, worsening affordability, homelessness, social and housing polarisation and new forms of housing deprivation have been an increasing concern for public policy. With the crisis and rise in unemployment, some countries report more defaults on housing loans and repossessions. Low incomes and high costs are also responsible for increased evictions. Member States have reacted with measures to protect mortgage holders, strengthen income support and improve the supply of social and public housing. In some cases, targeted measures have been introduced, such as accommodation for the homeless and plans for energy efficiency²¹.

Statistical population: All individuals living in private households. People with missing values for tenure status are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage (%) of people in the total population

Main concepts used:

Housing cost ('net' of housing allowances) refer to monthly costs connected with the households right to live in the accommodation. The costs of utilities (water, electricity, gas and heating) resulting from the actual use of the accommodation are also included.

Disposable income means gross income less income tax, regular taxes on wealth, employees', self-employed and unemployed (if applicable) compulsory social insurance contributions, employers' social insurance contributions and inter- household transfers paid.

Housing allowances: The Housing Function refers to interventions by public authorities to help households meet the cost of housing. An essential criterion for defining the scope of a Housing allowance is the existence of a qualifying means-test for the benefit. It includes rent benefit and benefit to owner-occupier, while it excludes social housing policy organized through the fiscal system (i.e. tax benefits) and all capital transfers (in particular investment grants).

Other concepts: Age, Tenure status (TENSTA_2), Household cost burden (HCB), Equivalised disposable Income (EQ_INC)

Calculation method: The first step is to compute the

Household cost burden (HCB). The HCB threshold was set at 40 % of the total disposable household income. Although all information used for its calculation refers to the household level, this indicator is defined at individual level, i.e. HCB has to be calculated by individual and not by household. Individual weights are therefore used and are based on the Adjusted Cross Sectional Weight (RB050a).

²¹Joint Report on Social Protection and Social Iclusion (2010)

$$HH_OVERBURDEN_{at_tenure} = \frac{\sum_{i \text{ where } HCB>40\% \text{ at_tenure}}}{\sum_{\forall i \text{ where } HCB>40\% \text{ at_tenure}}} \cdot 100$$

Methodological issues:

Components that have been included in housing costs are: gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), regular maintenance and repairs²² and the cost of utilities (water, electricity, gas and heating) and in addition:

- OWNERS: Mortgage interest payments²³ (net of any tax relief), structural insurance, mandatory services and charges (sewage removal, refuse removal, etc.), taxes
- TENANTS (at market price or at reduce price): Rent payments, structural insurance (if paid by the tenants), services and charges (sewage removal, refuse removal, etc.) (if paid by the tenants), taxes on dwelling (if applicable)
- RENT FREE: gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance (if paid by the rent free tenant), services and charges (sewage removal, refuse removal, etc.) (if paid by the rent free tenant), taxes on dwelling (if applicable)

For housing cost items not included in the rent but paid like cost of the utilities, sewage removal, structural insurance, etc. a value has been imputed.

Other issues to be taken into consideration when analysing this indicator, are the following:

• Housing allowances are not fully comparable for all countries and discrepancies have been reported by a number of countries (see <u>2009 Comparative EU Intermediate</u> <u>Quality Report</u>)

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states - excluding Germany, Iceland, Norway, Croatia, Switzerland)
- Time
- Tenure status (TENURE): Owner with mortgage or loan/Owner no outstanding mortgage or housing loan/ Tenant rent at market price/Tenant rent at reduced price or free

Reference period: Survey year for tenure status. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mlvho07.sas, VAR_HY20_EQ_INCXX.sas

²² Only the regular maintenance and repairs should be included. According to the COICOP/HBS: 'regular maintenance or repairs of the dwelling are distinguished by two features: first, they are activities that have to be undertaken regularly in order to maintain the dwelling in good working order; second, they do not change the dwelling's performance, capacity or expected service life.

 $^{^{23}}$ Included only in case of mortgage taken for the purpose of buying the main dwelling

4.3.4.6.4 Housing cost overburden rate by degree of urbanization



Dataset: <u>Housing cost overburden rate</u> by degree of urbanization **Dissemination tree code:** <u>ilc_lvho07d</u> **Data source:** EU-SILC

Description: Percentage of persons in the population (or of the respective breakdown level) living in households where the total housing costs ('net' of housing allowances) represent more than 40 % of disposable income ('net' of housing allowances)

Key indicator(s) included in the dataset: Housing cost overburden by degree of urbanisation (OMC)

Policy relevance: One of the key challenges of Europe 2020 and in particular the poverty and social exclusion element is to provide decent, in terms of quality and cost, housing for everyone.

Shortage of adequate housing is a long-standing problem in most European countries. Over the last decade, worsening affordability, homelessness, social and housing polarisation and new forms of housing deprivation have been an increasing concern for public policy. With the crisis and rise in unemployment, some countries report more defaults on housing loans and repossessions. Low incomes and high costs are also responsible for increased evictions. Member States have reacted with measures to protect mortgage holders, strengthen income support and improve the supply of social and public housing. In some cases, targeted measures have been introduced, such as accommodation for the homeless and plans for energy efficiency²⁴.

Statistical population: All individuals living in private households. People living in households with missing values for degree of urbanisation are excluded. Persons living in collective households and in institutions are generally excluded from the target population **Unit of measurement:** Percentage (%) of people in the total population

Main concepts used:

Housing cost ('net' of housing allowances) refer to monthly costs connected with the households right to live in the accommodation. The costs of utilities (water, electricity, gas and heating) resulting from the actual use of the accommodation are also included.

Disposable income means gross income less income tax, regular taxes on wealth, employees', self-employed and unemployed (if applicable) compulsory social insurance contributions, employers' social insurance contributions and inter- household transfers paid.

Housing allowances: The Housing Function refers to interventions by public authorities to

²⁴Joint Report on Social Protection and Social Iclusion (2010)

help households meet the cost of housing. An essential criterion for defining the scope of a Housing allowance is the existence of a qualifying means-test for the benefit. It includes rent benefit and benefit to owner-occupier, while it excludes social housing policy organized through the fiscal system (i.e. tax benefits) and all capital transfers (in particular investment grants).

Other concepts: Equivalised disposable Income (EQ_INC), Degree of urbanisation (DEG_URB),

Household cost burden (HCB)

Calculation method: The first step is to compute the

Household cost burden (HCB). The HCB threshold was set at 40 % of the total disposable household income. Although all information used for its calculation refers to the household level, this indicator is defined at individual level, i.e. HCB has to be calculated by individual and not by household. Individual weights are therefore used and are based on the Adjusted Cross Sectional Weight (RB050a).

$$HH_OVERBURDEN_{at_degurb} = \frac{\sum_{i, \text{ at_degurb}} RB050a_i}{\sum_{\forall i \text{ where } HCB>40\% \text{ at_degurb}} \cdot 100}$$

Methodological issues:

Components that have been included in housing costs are: gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), regular maintenance and repairs²⁵ and the cost of utilities (water, electricity, gas and heating) and in addition:

- OWNERS: Mortgage interest payments²⁶ (net of any tax relief), structural insurance, mandatory services and charges (sewage removal, refuse removal, etc.), taxes
- TENANTS (at market price or at reduce price): Rent payments, structural insurance (if paid by the tenants), services and charges (sewage removal, refuse removal, etc.) (if paid by the tenants), taxes on dwelling (if applicable)
- RENT FREE: gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance (if paid by the rent free tenant), services and charges (sewage removal, refuse removal, etc.) (if paid by the rent free tenant), taxes on dwelling (if applicable)

For housing cost items not included in the rent but paid like cost of the utilities, sewage removal, structural insurance, etc. a value has been imputed.

Other issues to be taken into consideration when analysing this indicator, are the following:

 Housing allowances are not fully comparable for all countries and discrepancies have been reported by a number of countries (see <u>2009 Comparative EU</u> <u>Intermediate Quality Report</u>)

²⁵ Only the regular maintenance and repairs should be included. According to the COICOP/HBS: 'regular maintenance or repairs of the dwelling are distinguished by two features: first, they are activities that have to be undertaken regularly in order to maintain the dwelling in good working order; second, they do not change the dwelling's performance, capacity or expected service life.

 $^{^{26}}$ Included only in case of mortgage taken for the purpose of buying the main dwelling

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states - excluding Germany, Iceland, Norway, Croatia, Switzerland)
- Time
- Degree of urbanization (DEG URB): Densely-populated area (at least 500 inhabitants/Km²)/Intermediate urbanized area (between 100 and 499 inhabitants/Km²)/Thinly-populated area (less than 100 inhabitants/Km²), Total)

Reference period: Survey year for degree of urbanisation. Income reference period for income variables - with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mlvho07.sas, VAR HY20 EQ INCXX.sas

4.3.4.6.5 Housing cost overburden rate by household type



Dataset: Housing cost overburden rate by household type **Dissemination tree code:** ilc lvho07e

Data source: EU-SILC

Description: Percentage of persons in the population (or of the respective breakdown level) living in households where the total housing costs ('net' of housing allowances) represent more than 40 % of disposable income ('net' of housing allowances)

Key indicator(s) included in the dataset: Housing cost overburden by household type (OMC)

Policy relevance: One of the key challenges of Europe 2020 and in particular the poverty and social exclusion element is to provide decent, in terms of quality and cost, housing for everyone.

Shortage of adequate housing is a long-standing problem in most European countries. Over the last decade, worsening affordability, homelessness, social and housing polarisation and new forms of housing deprivation have been an increasing concern for public policy. With the crisis and rise in unemployment, some countries report more defaults on housing loans and repossessions. Low incomes and high costs are also responsible for increased evictions. Member States have reacted with measures to protect mortgage holders, strengthen income support and improve the supply of social and public housing. In some cases, targeted measures have been introduced, such as accommodation for the homeless and plans for energy efficiency 27 .

²⁷Joint Report on Social Protection and Social Iclusion (2010)

Statistical population: All individuals living in private households. People with missing values for household type of urbanisation are excluded. Persons living in collective households and in institutions are generally excluded from the target population **Unit of measurement:** Percentage (%) of people in the total population

Main concepts used:

Housing cost ('net' of housing allowances) refer to monthly costs connected with the households right to live in the accommodation. The costs of utilities (water, electricity, gas and heating) resulting from the actual use of the accommodation are also included.

Disposable income means gross income less income tax, regular taxes on wealth, employees', self-employed and unemployed (if applicable) compulsory social insurance contributions, employers' social insurance contributions and inter-household transfers paid.

Housing allowances: The Housing Function refers to interventions by public authorities to help households meet the cost of housing. An essential criterion for defining the scope of a Housing allowance is the existence of a qualifying means-test for the benefit. It includes rent benefit and benefit to owner-occupier, while it excludes social housing policy organized through the fiscal system (i.e. tax benefits) and all capital transfers (in particular investment grants).

Other concepts: Household types (HHTYP), Equivalised disposable Income (EQ_INC), Household cost burden (HCB)

Calculation method: The first step is to compute the Household types (HHTYP). The HCB threshold was set at 40 % of the total disposable household income. Although all information used for its calculation refers to the household level, this indicator is defined at individual level, i.e. HCB has to be calculated by individual and not by household. Individual weights are therefore used and are based on the Adjusted Cross Sectional Weight (RB050a).

$$HH_OVERBURDEN_{at_HHTYP} = \frac{\sum_{i=1}^{N} RB050a_{i}}{\sum_{i=1}^{N} RB050a_{i}} \cdot 100$$

Methodological issues:

Components that have been included in housing costs are: gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), regular maintenance and repairs²⁸ and the cost of utilities (water, electricity, gas and heating) and in addition:

- OWNERS: Mortgage interest payments²⁹ (net of any tax relief), structural insurance, mandatory services and charges (sewage removal, refuse removal, etc.), taxes
- TENANTS (at market price or at reduce price): Rent payments, structural insurance

²⁸ Only the regular maintenance and repairs should be included. According to the COICOP/HBS: 'regular maintenance or repairs of the dwelling are distinguished by two features: first, they are activities that have to be undertaken regularly in order to maintain the dwelling in good working order; second, they do not change the dwelling's performance, capacity or expected service life.

²⁹ Included only in case of mortgage taken for the purpose of buying the main dwelling

(if paid by the tenants), services and charges (sewage removal, refuse removal, etc.) (if paid by the tenants), taxes on dwelling (if applicable)

• RENT FREE: gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance (if paid by the rent free tenant), services and charges (sewage removal, refuse removal, etc.) (if paid by the rent free tenant), taxes on dwelling (if applicable)

For housing cost items not included in the rent but paid like cost of the utilities, sewage removal, structural insurance, etc. a value has been imputed.

Other issues to be taken into consideration when analysing this indicator, are the following:

 Housing allowances are not fully comparable for all countries and discrepancies have been reported by a number of countries (see <u>2009 Comparative EU</u> <u>Intermediate Quality Report</u>)

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states excluding Germany, Iceland, Norway, Croatia, Switzerland)
- Household type (HHTYP): Single person/One adult younger than 65 years/One adult older than 65 years/Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years/Two adults at least one aged 65 years and over/Two adults with one dependent child/Two adults with two dependent children/Two adults with three or more dependent children/Two or more adults without dependent children/Two or more adults with dependent children/Three or more adults with dependent children/Three or more adults with dependent children/Three or more adults with dependent children/Households without dependent children/Households with dependent children

Reference period: Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mlvho07.sas, VAR_HY20_EQ_INCXX.sas

4.3.4.6.6 Median of the housing cost burden distribution by age, sex and poverty status

eurostat

Dataset: Median of the housing cost burden distribution by age, sex and poverty status **Dissemination tree code:** ilc_lvho08a **Data source:** EU-SILC **Description:** Weighted median of the distribution of the share of total housing costs (net of housing allowances) in the total disposable household income (net of housing allowances) presented by age, sex and poverty status.

Key indicator(s) included in the dataset: Median of the housing cost burden distribution (median share of housing cost) by sex, age group and poverty status (OMC)

Policy relevance: One of the key challenges of Europe 2020 and in particular the poverty and social exclusion element, is to provide decent, in terms of quality and cost, housing for everyone.

Shortage of adequate housing is a long-standing problem in most European countries. Over the last decade, worsening affordability, homelessness, social and housing polarisation and new forms of housing deprivation have been an increasing concern for public policy. With the crisis and rise in unemployment, some countries report more defaults on housing loans and repossessions. Low incomes and high costs are also responsible for increased evictions. Member States have reacted with measures to protect mortgage holders, strengthen income support and improve the supply of social and public housing. In some cases, targeted measures have been introduced, such as accommodation for the homeless and plans for energy efficiency³⁰.

Statistical population: All individuals living in private households. Households and individuals therein with missing equivalised disposable income (EQ_INC) or missing housing costs or missing any of the breakdown variables are excluded from the calculation. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage (%) of people in the total population

Main concepts used:

Housing cost ('net' of housing allowances) refer to monthly costs connected with the households right to live in the accommodation. The costs of utilities (water, electricity, gas and heating) resulting from the actual use of the accommodation are also included.

Disposable income means gross income less income tax, regular taxes on wealth, employees', self-employed and unemployed (if applicable) compulsory social insurance contributions, employers' social insurance contributions and inter- household transfers paid.

Housing allowances: The Housing Function refers to interventions by public authorities to help households meet the cost of housing. An essential criterion for defining the scope of a Housing allowance is the existence of a qualifying means-test for the benefit. It includes rent benefit and benefit to owner-occupier, while it excludes social housing policy organized through the fiscal system (i.e. tax benefits) and all capital transfers (in particular investment grants).

Other concepts: Age, Poverty status (ARPTXXi), Household cost burden (HCB), Equivalised disposable Income (EQ_INC), Median Equivalised disposable Income after social transfers (MEDIAN20)

³⁰Joint Report on Social Protection and Social Iclusion (2010)

Calculation method: The first step is to compute the

Household cost burden (HCB). Although all information used for its calculation refers to the household level, this indicator is defined at individual level, i.e. HCB has to be calculated by individual and not by household. Individual weights are therefore used and are based on the Adjusted Cross Sectional Weight (RB050a).

The algorithm calculates the weighted median of the distribution of HCB for all individuals.

$$HCB_M_{at_age/sex/incgrp} = \begin{cases} \frac{1}{2} (HCB_{j_at_age/sex/incgr} + HCB_{j+1_at_age/sex/incgrp}), & \text{if } \sum_{i=1}^{j} RB050a_i = \frac{1}{2} \sum_{i=1}^{n} RB050a_i \\ HCB_{j+1_at_age/sex/incgr}, & \text{if } \sum_{i=1}^{j} RB050a_i < \frac{1}{2} \sum_{i=1}^{n} RB050a_i < \sum_{i=1}^{j+1} RB050a_i \end{cases}$$

Methodological issues:

Components that have been included in housing costs are: gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), regular maintenance and repairs³¹ and the cost of utilities (water, electricity, gas and heating) and in addition:

- OWNERS: Mortgage interest payments³² (net of any tax relief), structural insurance, mandatory services and charges (sewage removal, refuse removal, etc.), taxes
- TENANTS (at market price or at reduce price): Rent payments, structural insurance (if paid by the tenants), services and charges (sewage removal, refuse removal, etc.) (if paid by the tenants), taxes on dwelling (if applicable)
- RENT FREE: gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance (if paid by the rent free tenant), services and charges (sewage removal, refuse removal, etc.) (if paid by the rent free tenant), taxes on dwelling (if applicable)

For housing cost items not included in the rent but paid like cost of the utilities, sewage removal, structural insurance, etc. a value has been imputed.

Other issues to be taken into consideration when analysing this indicator, are the following:

• Housing allowances are not fully comparable for all countries and discrepancies have been reported by a number of countries (see 2009 Comparative EU Intermediate Quality Report)

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states excluding Germany, Iceland, Norway, Croatia, Switzerland)
- Time
- Sex: Male/Female/Total
- Age: <18/18-64/65 and over/Total
- Poverty Status (INCGRP): Below 60% of median equivalised income/Above 60%

³¹ Only the regular maintenance and repairs should be included. According to the COICOP/HBS: 'regular maintenance or repairs of the dwelling are distinguished by two features: first, they are activities that have to be undertaken regularly in order to maintain the dwelling in good working order; second, they do not change the dwelling's performance, capacity or expected service life.

³² Included only in case of mortgage taken for the purpose of buying the main dwelling

of median equivalised income/Total

Reference period: Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mlvho08.sas, VAR_HY20_EQ_INCXX.sas

4.3.4.6.7 Median of the housing cost burden distribution by degree of urbanisation



Dataset: Median of the housing cost burden distribution by degree of urbanization **Dissemination tree code:** ilc_lvho08b

Data source: EU-SILC

Description: Weighted median of the distribution of the share of total housing costs (net of housing allowances) in the total disposable household income (net of housing allowances) presented by degree of urbanization.

Key indicator(s) included in the dataset: Median of the housing cost burden distribution (median share of housing cost) by degree of urbanisation (OMC)

Policy relevance: One of the key challenges of Europe 2020 and in particular the poverty and social exclusion element, is to provide decent, in terms of quality and cost, housing for everyone.

Shortage of adequate housing is a long-standing problem in most European countries. Over the last decade, worsening affordability, homelessness, social and housing polarisation and new forms of housing deprivation have been an increasing concern for public policy. With the crisis and rise in unemployment, some countries report more defaults on housing loans and repossessions. Low incomes and high costs are also responsible for increased evictions. Member States have reacted with measures to protect mortgage holders, strengthen income support and improve the supply of social and public housing. In some cases, targeted measures have been introduced, such as accommodation for the homeless and plans for energy efficiency³³.

Statistical population: All individuals living in private households. Households and individuals therein with missing equivalised disposable income (EQ_INC) or missing housing costs or missing any of the breakdown variables are excluded from the calculation. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage (%) of people in the total population

³³Joint Report on Social Protection and Social Iclusion (2010)

Main concepts used:

Housing cost ('net' of housing allowances) refer to monthly costs connected with the households right to live in the accommodation. The costs of utilities (water, electricity, gas and heating) resulting from the actual use of the accommodation are also included.

Disposable income means gross income less income tax, regular taxes on wealth, employees', self-employed and unemployed (if applicable) compulsory social insurance contributions, employers' social insurance contributions and inter- household transfers paid.

Housing allowances: The Housing Function refers to interventions by public authorities to help households meet the cost of housing. An essential criterion for defining the scope of a Housing allowance is the existence of a qualifying means-test for the benefit. It includes rent benefit and benefit to owner-occupier, while it excludes social housing policy organized through the fiscal system (i.e. tax benefits) and all capital transfers (in particular investment grants).

Other concepts: Degree of urbanisation (DEG_URB), Household cost burden (HCB), Equivalised disposable Income (EQ_INC)

Calculation method: The first step is to compute the

Household cost burden (HCB). Although all information used for its calculation refers to the household level, this indicator is defined at individual level, i.e. HCB has to be calculated by individual and not by household. Individual weights are therefore used and are based on the Adjusted Cross Sectional Weight (RB050a).

The algorithm calculates the weighted median of the distribution of HCB for all individuals.

$$HCB_M_{at_DEG_URB} = \begin{cases} \frac{1}{2} (HCB_{j_at_DEG_URB} + HCB_{j+1_at_DEG_URB}), & if \sum_{i=1}^{j} RB050a_{i} = \frac{1}{2} \sum_{i=1}^{n} RB050a_{i} \\ HCB_{j+1_at_DEG_URB}, & if \sum_{i=1}^{j} RB050a_{i} < \frac{1}{2} \sum_{i=1}^{n} RB050a_{i} < \sum_{i=1}^{j+1} RB050a_{i} \end{cases}$$

Methodological issues:

Components that have been included in housing costs are: gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), regular maintenance and repairs³⁴ and the cost of utilities (water, electricity, gas and heating) and in addition:

- OWNERS: Mortgage interest payments³⁵ (net of any tax relief), structural insurance, mandatory services and charges (sewage removal, refuse removal, etc.), taxes
- TENANTS (at market price or at reduce price): Rent payments, structural insurance

³⁴ Only the regular maintenance and repairs should be included. According to the COICOP/HBS: 'regular maintenance or repairs of the dwelling are distinguished by two features: first, they are activities that have to be undertaken regularly in order to maintain the dwelling in good working order; second, they do not change the dwelling's performance, capacity or expected service life.

³⁵ Included only in case of mortgage taken for the purpose of buying the main dwelling

(if paid by the tenants), services and charges (sewage removal, refuse removal, etc.) (if paid by the tenants), taxes on dwelling (if applicable)

• RENT FREE: gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance (if paid by the rent free tenant), services and charges (sewage removal, refuse removal, etc.) (if paid by the rent free tenant), taxes on dwelling (if applicable)

For housing cost items not included in the rent but paid like cost of the utilities, sewage removal, structural insurance, etc. a value has been imputed.

Other issues to be taken into consideration when analysing this indicator, are the following:

• Housing allowances are not fully comparable for all countries and discrepancies have been reported by a number of countries (see 2009 Comparative EU Intermediate Quality Report)

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states excluding Germany, Iceland, Norway, Croatia, Switzerland)
- Time
- Degree of urbanization (DEG_URB): Densely-populated area (at least 500 inhabitants/Km²)/Intermediate urbanized area (between 100 and 499 inhabitants/Km²)/Thinly-populated area (less than 100 inhabitants/Km²)/Total

Reference period: Survey year for degree of urbanisation. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mlvho08.sas, VAR_HY20_EQ_INCXX.sas

4.3.5 Childcare arrangements (ilc_ca)

4.3.5.1 Formal childcare by age group and duration - % over the population of each age group



Dataset: Formal childcare by age group and duration - % over the population of each age group

Dissemination tree code: i<u>lc_caindformal</u> Data source: EU-SILC

Description: The percentage of children cared for, by formal arrangements other than by the family, less than 30 hours a usual week/30 hours or more a usual week as a proportion of all children of same age group.

Key indicator(s) included in the dataset: Childcare (by age group) (JAF)

Policy relevance:

Formal childcare is one main objective of the European employment strategy in order to enhance a lifecycle approach to work and to promote reconciliation between work and family life. Therefore policies regarding childcare provision are necessary. Specific efforts are also needed to tackle regional disparities within countries. The increase in the average employment rate of parents, especially single parents, who are usually exposed to higher poverty risk, requires measures to support families. In particular, Member States should take account of the special needs of single parents and families with many children. The formal childcare indicator monitors progress helping people of all ages to find jobs and removing barriers that prevent them from doing so.

Statistical population: The childcare target population consists of all household members below the age of 12 years old. Children living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of children in the total childcare population

Main concepts used:

Formal childcare: is regulated childcare away from the child's home.

Formal childcare **duration**, which is used in this dataset, consists of the aggregate of the four EU – SILC variables: education at pre – school (RL010), education at compulsory education (RL020), childcare at centre – based services outside school hours (RL030) and childcare at day – care centre (RL040).

Other concepts: Child age (CHILDAGE)

Calculation method: This dataset describes the distribution of children cared ($FCSHARE_{at_CHILDAGE_DURATION}$) for by formal arrangements other than by the family, broken down by age and duration group as a proportion of all children of same age group. The weight variable used is the Child Weight.

 $FCSHARE_{at_CHILDAGE/DURATION} = \frac{\sum_{i_at_CHILDAGE/DURATION} Child Weight_{i}}{\sum_{\forall i_at_CHILDAGE} Child Weight_{i}} \cdot 100$

Methodological issues:

- Comparability is restricted across countries because of differences among countries due to the age of admission to compulsory primary education. This kind of lack of comparability will be quite difficult to reduce or eliminate, as it would imply a harmonisation of the national educational systems. In addition, the comparability is also restricted due to different length of maternity leave in the countries.
- The comparability over time is restricted because of the shortness of the time series. For a large number of countries data are available from 2005 onwards.
- Health care data on resources and patients are largely based on administrative data

sources in the countries. Therefore, they reflect the country-specific way of organising health care and may not always be completely comparable.

Breakdowns: The dataset provides percentages for the whole population broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Age: From minimum compulsory school age to 12 years/From 3 years to minimum compulsory school age/Less than 3 years
- Duration: Zero hours/From 1 to 29 hours/30 hours or over

Reference period: The age at survey year for childage with the exception of Ireland and Finland where childage is the age at the end of the previous of survey year.

SAS program: table1.sas

4.3.5.2 Average number of weekly hours of formal care by age group – Children with or without formal care



Dataset: Average number of weekly hours of formal care by age group – Children with or without formal care

Dissemination tree code: <u>ilc_camnforall</u> Data source: EU-SILC

Description: The indicator is defined as the weighted average number of weekly hours that children cared for, by formal arrangements other than by the family in the relevant age breakdown.

Key indicator(s) included in the dataset: --

Policy relevance: Formal childcare is one main objective of the European employment strategy in order to enhance a lifecycle approach to work and to promote reconciliation between work and family life. Therefore policies regarding childcare provision are necessary. Specific efforts are also needed to tackle regional disparities within countries. The increase in the average employment rate of parents, especially single parents, who are usually exposed to higher poverty risk, requires measures to support families. In particular, Member States should take account of the special needs of single parents and families with many children. The formal childcare indicator monitors progress helping people of all ages to find jobs and removing barriers that prevent them from doing so.

Statistical population: The childcare target population consists of all household members below the age of 12 years old, with or without formal care. Children living in collective

households and in institutions are generally excluded from the target population. **Unit of measurement:** Hours

Main concepts used:

Formal childcare: is regulated childcare away from the child's home.

Formal childcare hours (Formal_Hours), which is used in this dataset, consists of the aggregate of the four EU – SILC variables: education at pre – school (RL010), education at compulsory education (RL020), childcare at centre – based services outside school hours (RL030) and childcare at day – care centre (RL040).

Other concepts: Child age (CHILDAGE)

Calculation method: This dataset describes the weighted average number of weekly hours that children cared for ($FCAVEH_ALL_{at_CHILDAGE}$), by formal arrangements other than by the family in the relevant age breakdown. The weight variable used is the Child Weight.

 \sum Formal_Hours_i · Child Weight_i

$$FCAVEH_ALL_{at_CHILDAGE} = \frac{\forall_{i_at_CHILDAGE}}{\sum_{\forall_{i_at_CHILDAGE}}} Child Weight_{i}$$

Methodological issues:

- Comparability is restricted across countries because of differences among countries due to the age of admission to compulsory primary education. This kind of lack of comparability will be quite difficult to reduce or eliminate, as it would imply a harmonisation of the national educational systems. In addition, the comparability is also restricted due to different length of maternity leave in the countries.
- The comparability over time is restricted because of the shortness of the time series. For a large number of countries data are available from 2005 onwards.
- Health care data on resources and patients are largely based on administrative data sources in the countries. Therefore, they reflect the country-specific way of organising health care and may not always be completely comparable.

Breakdowns: The dataset provides data for the whole population broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Age: From minimum compulsory school age to 12 years/From 3 years to minimum compulsory school age/Less than 3 years

Reference period: The age at survey year for childage with the exception of Ireland and Finland where childage is the age at the end of the previous of survey year.

SAS program: table2.sas

4.3.5.3 Average number of weekly hours of formal care by age group – Children with at least 1 hour of formal care



Dataset: Average number of weekly hours of formal care by age group – Children with at least 1 hour of formal care

Dissemination tree code: <u>ilc_camnforg0</u>

Data source: EU-SILC

Description: The indicator is defined as the weighted average number of weekly hours that children cared for, by formal arrangements other than by the family and with at least one hour of care in the relevant age breakdown.

Key indicator(s) included in the dataset: --

Policy relevance: Formal childcare is one main objective of the European employment strategy in order to enhance a lifecycle approach to work and to promote reconciliation between work and family life. Therefore policies regarding childcare provision are necessary. Specific efforts are also needed to tackle regional disparities within countries. The increase in the average employment rate of parents, especially single parents, who are usually exposed to higher poverty risk, requires measures to support families. In particular, Member States should take account of the special needs of single parents and families with many children. The formal childcare indicator monitors progress helping people of all ages to find jobs and removing barriers that prevent them from doing so.

Statistical population: The childcare target population consists of all household members below the age of 12 years old and with at least 1 hour of formal care. Children living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Hours

Main concepts used:

Formal childcare: is regulated childcare away from the child's home.

Formal childcare hours (Formal_Hours), which is used in this dataset, consists of the aggregate of the four EU – SILC variables: education at pre – school (RL010), education at compulsory education (RL020), childcare at centre – based services outside school hours (RL030) and childcare at day – care centre (RL040).

Other concepts: Child age (CHILDAGE)

Calculation method: This dataset describes the weighted average number of weekly hours that children cared for ($FCAVEHO_{at_CHILDAGE}$), by formal arrangements other than by the family and with at least one hour of care in the relevant age breakdown. The weight variable used is the Child Weight.

$$FCAVEHO_{at_CHILDAGE} = \frac{\sum_{i_at_CHILDAGE} Formal_Hours_i \cdot Child Weight_i}{\sum_{\forall i_at_CHILDAGE} Child Weight_i}$$

Methodological issues:

- Comparability is restricted across countries because of differences among countries due to the age of admission to compulsory primary education. This kind of lack of comparability will be quite difficult to reduce or eliminate, as it would imply a harmonisation of the national educational systems. In addition, the comparability is also restricted due to different length of maternity leave in the countries.
- The comparability over time is restricted because of the shortness of the time series. For a large number of countries data are available from 2005 onwards.
- Health care data on resources and patients are largely based on administrative data sources in the countries. Therefore, they reflect the country-specific way of organising health care and may not always be completely comparable.

Breakdowns: The dataset provides data for the whole population broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Age: From minimum compulsory school age to 12 years/From 3 years to minimum compulsory school age/Less than 3 years

Reference period: The age at survey year for childage with the exception of Ireland and Finland where childage is the age at the end of the previous of survey year.

SAS program: table2.sas

4.3.5.4 Median number of weekly hours of formal care by age group – Children with at least 1 hour of formal care



Dataset: Median number of weekly hours of formal care by age group – Children with at least 1 hour of formal care

Dissemination tree code: <u>ilc_camdforg0</u> Data source: EU-SILC

Description: The indicator is defined as the weighted median number of weekly hours that children cared for, by formal arrangements other than by the family and with at least one hour of care in the relevant age breakdown.

Key indicator(s) included in the dataset: --

Policy relevance: Formal childcare is one main objective of the European employment strategy in order to enhance a lifecycle approach to work and to promote reconciliation between work and family life. Therefore policies regarding childcare provision are necessary. Specific efforts are also needed to tackle regional disparities within countries. The increase in the average employment rate of parents, especially single parents, who are usually exposed to higher poverty risk, requires measures to support families. In particular, Member States should take account of the special needs of single parents and families with many children. The formal childcare indicator monitors progress helping people of all ages to find jobs and removing barriers that prevent them from doing so.

Statistical population: The childcare target population consists of all household members below the age of 12 years old and with at least 1 hour of formal care. Children living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Hours

Main concepts used:

Formal childcare: is regulated childcare away from the child's home.

Formal childcare hours (Formal_Hours), which is used in this dataset, consists of the aggregate of the four EU – SILC variables: education at pre – school (RL010), education at compulsory education (RL020), childcare at centre – based services outside school hours (RL030) and childcare at day – care centre (RL040).

Other concepts: Child age (CHILDAGE)

Calculation method: This dataset describes the weighted median number of weekly hours that children cared for ($FCMEDHO_{at_CHILDAGE}$), by formal arrangements other than by the family and with at least one hour of care in the relevant age breakdown. The weight variable used is the Child Weight.

$$FCMEDH_{0_{at_CHILDAGE}} = \begin{cases} \frac{1}{2} (Formal_Hours)_{j_at_CHILDAGE} + Formal_Hours_{j+1_at_CHILDAGE}), & if \sum_{i=1}^{j} Child Weight_i = \frac{1}{2} \sum_{i=1}^{n} Child Weight_i \\ Formal_Hours_{j+1_at_CHILDAGE}, & if \sum_{i=1}^{j} Child Weight_i < \frac{1}{2} \sum_{i=1}^{n} Child Weight_i < \sum_{i=1}^{j+1} Child Weight_i \end{cases}$$

Methodological issues:

- Comparability is restricted across countries because of differences among countries due to the age of admission to compulsory primary education. This kind of lack of comparability will be quite difficult to reduce or eliminate, as it would imply a harmonisation of the national educational systems. In addition, the comparability is also restricted due to different length of maternity leave in the countries.
- The comparability over time is restricted because of the shortness of the time series. For a large number of countries data are available from 2005 onwards.
- Health care data on resources and patients are largely based on administrative data sources in the countries. Therefore, they reflect the country-specific way of organising health care and may not always be completely comparable.

Breakdowns: The dataset provides data for the whole population broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Age: From minimum compulsory school age to 12 years/From 3 years to minimum compulsory school age/Less than 3 years

Reference period: The age at survey year for childage with the exception of Ireland and Finland where childage is the age at the end of the previous of survey year.

SAS program: table2_median.sas

4.3.5.5 Other types of childcare by age group and duration – % over the population of each age group



Dataset: Other types of childcare by age group and duration -% over the population of each age group

Dissemination tree code: <u>ilc_caindother</u> Data source: EU-SILC

Description: The indicator is defined as the percentage of children cared for, by arrangements of the child's family either in child's home or elsewhere, less than 30 hours a usual week/30 hours or more a usual week as a proportion of all children of same age group.

Key indicator(s) included in the dataset: --

Policy relevance: Grandparent care is the main component of other types of childcare and can take many forms, from occasional babysitting through regular help with child care to being the sole or main provider of childcare while parents work, or living with their grandchildren in multi-generation households. Families across the social spectrum use grandparental care for their children, although there is particular reliance among low-income groups on extended family (primarily grandmothers) to provide support so that mothers can work. Grandparents are more likely to be involved with first-born children, when mothers are younger (especially with teenage mothers), and where mothers work on a part-time basis. Levels of grandparent involvement were highest for those mothers who returned to work before the child was six months old. Grandparent involvement was also greater in single parent families. Families with no financial problems are the least likely to report grandparent care, and mothers using grandparent childcare tend to be the more disadvantaged groups.

Statistical population: The childcare target population consists of all household members below the age of 12 years old. Children living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of children in the total childcare population

Main concepts used:

Other types of childcare is generally defined as care arranged by the child's parent either in the child's home or elsewhere, provided by relatives, friends, neighbours, babysitters or nannies and it is generally unregulated.

Other childcare **duration**, which is used in this dataset, consists of the aggregate of the two EU - SILC variables: child care by a professional child-minder at child's home or at child-minders's home (RL050), child care by grand-parents, other household members (outside parents), other relatives, friends or neighbours (RL060).

Other concepts: Child age (CHILDAGE)

Calculation method: This dataset describes the distribution of children cared ($OTCSHARE_{at_CHILDAGE_DURATION}$) for by arrangements of the child's family either in child's home or elsewhere broken down by age and duration group as a proportion of all children of same age group. The weight variable used is the Child Weight.

$$OTCSHARE_{at_CHILDAGE/DURATION} = \frac{\sum_{i_at CHILDAGE/DURATION} Child Weight_{i}}{\sum_{\forall i_at_CHILDAGE} Child Weight_{i}} \cdot 100$$

Methodological issues:

- Comparability is restricted across countries because of differences among countries due to the age of admission to compulsory primary education. This kind of lack of comparability will be quite difficult to reduce or eliminate, as it would imply a harmonisation of the national educational systems. In addition, the comparability is also restricted due to different length of maternity leave in the countries.
- The comparability over time is restricted because of the shortness of the time series. For a large number of countries data are available from 2005 onwards.
- Health care data on resources and patients are largely based on administrative data sources in the countries. Therefore, they reflect the country-specific way of organising health care and may not always be completely comparable.

Breakdowns: The dataset provides percentages for the whole population broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Age: From minimum compulsory school age to 12 years/From 3 years to minimum compulsory school age/Less than 3 years
- Duration: Zero hours/From 1 to 29 hours/30 hours or over

Reference period: The age at survey year for childage with the exception of Ireland and Finland where childage is the age at the end of the previous of survey year.

SAS program: table3.sas

4.3.5.6 Average number of weekly hours of other types of care by age group – Children with or without other types of care



Dataset: Average number of weekly hours of other types of care by age group – Children with or without other types of care

Dissemination tree code: <u>ilc_camnothall</u>

Data source: EU-SILC

Description: The indicator is defined as the weighted average number of weekly hours that children cared for, by arrangements of the child's family either in child's home or elsewhere in the relevant age breakdown.

Key indicator(s) included in the dataset: --

Policy relevance: Grandparent care is the main component of other types of childcare and can take many forms, from occasional babysitting through regular help with child care to being the sole or main provider of childcare while parents work, or living with their grandchildren in multi-generation households. Families across the social spectrum use grandparental care for their children, although there is particular reliance among low-income groups on extended family (primarily grandmothers) to provide support so that mothers can work. Grandparents are more likely to be involved with first-born children, when mothers are younger (especially with teenage mothers), and where mothers work on a part-time basis. Levels of grandparent involvement were highest for those mothers who returned to work before the child was six months old. Grandparent involvement was also greater in single parent families. Families with no financial problems are the least likely to report grandparent care, and mothers using grandparent childcare tend to be the more disadvantaged groups.

Statistical population: The childcare target population consists of all household members below the age of 12 years old, with or without other types of care. Children living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Hours

Main concepts used:

Other types of childcare is generally defined as care arranged by the child's parent either in the child's home or elsewhere, provided by relatives, friends, neighbours, babysitters or nannies and it is generally unregulated.

Other childcare hours (Other_Hours), which is used in this dataset, consists of the aggregate of the two EU – SILC variables: child care by a professional child-minder at child's home or at child-minders's home (RL050), child care by grand-parents, other household members (outside parents), other relatives, friends or neighbours (RL060).

Other concepts: Child age (CHILDAGE)

Calculation method: This dataset describes the weighted average number of weekly hours that children cared for ($OTCAVEH_ALL_{at_CHILDAGE}$), by arrangements of the child's family either in child's home or elsewhere in the relevant age breakdown. The weight variable used is the Child Weight.

 $OTCAVEH_ALL_{at_CHILDAGE} = \frac{\sum_{\forall i_at_CHILDAGE} Other_Hours_i \cdot Child Weight_i}{\sum_{\forall i_at_CHILDAGE} Child Weight_i}$

Methodological issues:

- Comparability is restricted across countries because of differences among countries due to the age of admission to compulsory primary education. This kind of lack of comparability will be quite difficult to reduce or eliminate, as it would imply a harmonisation of the national educational systems. In addition, the comparability is also restricted due to different length of maternity leave in the countries.
- The comparability over time is restricted because of the shortness of the time series. For a large number of countries data are available from 2005 onwards.
- Health care data on resources and patients are largely based on administrative data sources in the countries. Therefore, they reflect the country-specific way of organising health care and may not always be completely comparable.

Breakdowns: The dataset provides data for the whole population broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Age: From minimum compulsory school age to 12 years/From 3 years to minimum compulsory school age/Less than 3 years

Reference period: The age at survey year for childage with the exception of Ireland and Finland where childage is the age at the end of the previous of survey year.

SAS program: table4.sas

4.3.5.7 Average number of weekly hours of other types of care by age group – Children with at least one hour of other types of care



Dataset: Average number of weekly hours of other types of care by age group – Children with at least one hour of other types of care

Dissemination tree code: <u>ilc_camnothg0</u>

Data source: EU-SILC

Description: The indicator is defined as the weighted average number of weekly hours that children cared for, by arrangements of the child's family either in child's home or elsewhere and with at least one hour of care in the relevant age breakdown.

Key indicator(s) included in the dataset: --

Policy relevance: Grandparent care is the main component of other types of childcare and can take many forms, from occasional babysitting through regular help with child care to being the sole or main provider of childcare while parents work, or living with their grandchildren in multi-generation households. Families across the social spectrum use grandparental care for their children, although there is particular reliance among low-income groups on extended family (primarily grandmothers) to provide support so that mothers can work. Grandparents are more likely to be involved with first-born children, when mothers are younger (especially with teenage mothers), and where mothers work on a part-time basis. Levels of grandparent involvement were highest for those mothers who returned to work before the child was six months old. Grandparent involvement was also greater in single parent families. Families with no financial problems are the least likely to report grandparent care, and mothers using grandparent childcare tend to be the more disadvantaged groups.

Statistical population: The childcare target population consists of all household members below the age of 12 years old and with at least 1 hour of other types of care. Children living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Hours

Main concepts used:

Other types of childcare is generally defined as care arranged by the child's parent either in the child's home or elsewhere, provided by relatives, friends, neighbours, babysitters or nannies and it is generally unregulated.

Other childcare hours (Other_Hours), which is used in this dataset, consists of the aggregate of the two EU – SILC variables: child care by a professional child-minder at child's home or at child-minders's home (RL050), child care by grand-parents, other household members (outside parents), other relatives, friends or neighbours (RL060).

Other concepts: Child age (CHILDAGE)

Calculation method: This dataset describes the weighted average number of weekly hours that children cared for ($OTCAVEH0_{at_CHILDAGE}$), by arrangements of the child's family either

in child's home or elsewhere and with at least one hour of care in the relevant age breakdown. The weight variable used is the Child Weight.

$$OTCAVEHO_{at_CHILDAGE} = \frac{\sum_{i_at_CHILDAGE} Other_Hours_i \cdot Child Weight_i}{\sum_{\forall i_at_CHILDAGE} Child Weight_i}$$

Methodological issues:

- Comparability is restricted across countries because of differences among countries due to the age of admission to compulsory primary education. This kind of lack of comparability will be quite difficult to reduce or eliminate, as it would imply a harmonisation of the national educational systems. In addition, the comparability is also restricted due to different length of maternity leave in the countries.
- The comparability over time is restricted because of the shortness of the time series. For a large number of countries data are available from 2005 onwards.
- Health care data on resources and patients are largely based on administrative data sources in the countries. Therefore, they reflect the country-specific way of organising health care and may not always be completely comparable.

Breakdowns: The dataset provides data for the whole population broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Age: From minimum compulsory school age to 12 years/From 3 years to minimum compulsory school age/Less than 3 years

Reference period: The age at survey year for childage with the exception of Ireland and Finland where childage is the age at the end of the previous of survey year.

SAS program: table4.sas

4.3.5.8 Median number of weekly hours of other types of care by age group – Children with at least one hour of other types of care



Dataset: Median number of weekly hours of other types of care by age group – Children with at least one hour of other types of care **Dissemination tree code:** <u>ilc_camdothg0</u> Data source: EU-SILC

Description: The indicator is defined as the weighted median number of weekly hours that

children cared for, by arrangements of the child's family either in child's home or elsewhere and with at least one hour of care in the relevant age breakdown

Key indicator(s) included in the dataset: --

Policy relevance: Grandparent care is the main component of other types of childcare and can take many forms, from occasional babysitting through regular help with child care to being the sole or main provider of childcare while parents work, or living with their grandchildren in multi-generation households. Families across the social spectrum use grandparental care for their children, although there is particular reliance among low-income groups on extended family (primarily grandmothers) to provide support so that mothers can work. Grandparents are more likely to be involved with first-born children, when mothers are younger (especially with teenage mothers), and where mothers work on a part-time basis. Levels of grandparent involvement were highest for those mothers who returned to work before the child was six months old. Grandparent involvement was also greater in single parent families. Families with no financial problems are the least likely to report grandparent care, and mothers using grandparent childcare tend to be the more disadvantaged groups.

Statistical population: The childcare target population consists of all household members below the age of 12 years old and with at least 1 hour of other types of care. Children living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Hours

Main concepts used:

Other types of childcare is generally defined as care arranged by the child's parent either in the child's home or elsewhere, provided by relatives, friends, neighbours, babysitters or nannies and it is generally unregulated.

Other childcare hours (Other_Hours), which is used in this dataset, consists of the aggregate of the two EU – SILC variables: child care by a professional child-minder at child's home or at child-minders's home (RL050), child care by grand-parents, other household members (outside parents), other relatives, friends or neighbours (RL060).

Other concepts: Child age (CHILDAGE)

Calculation method: This dataset describes the weighted median number of weekly hours that children cared for ($OTCMEDHO_{at_CHILDAGE}$), by arrangements of the child's family either in child's home or elsewhere and with at least one hour of care in the relevant age breakdown. The weight variable used is the Child Weight.

$$OTCMEDH_{0_{at_CHILDAGE}} = \begin{cases} \frac{1}{2} (Other_Hours)_{j_at_CHILDAGE} + Other_Hours_{j+1_at_CHILDAGE}), & if \sum_{i=1}^{j} Child Weight_{i} = \frac{1}{2} \sum_{i=1}^{n} Child Weight_{i} \\ Other_Hours_{j+1_at_CHILDAGE}, & if \sum_{i=1}^{j} Child Weight_{i} < \frac{1}{2} \sum_{i=1}^{n} Child Weight_{i} < \sum_{i=1}^{j+1} Child Weight_{i} \end{cases}$$

Methodological issues:

• Comparability is restricted across countries because of differences among countries due to the age of admission to compulsory primary education. This kind of lack of

comparability will be quite difficult to reduce or eliminate, as it would imply a harmonisation of the national educational systems. In addition, the comparability is also restricted due to different length of maternity leave in the countries.

- The comparability over time is restricted because of the shortness of the time series. For a large number of countries data are available from 2005 onwards.
- Health care data on resources and patients are largely based on administrative data sources in the countries. Therefore, they reflect the country-specific way of organising health care and may not always be completely comparable.

Breakdowns: The dataset provides data for the whole population broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Age: From minimum compulsory school age to 12 years/From 3 years to minimum compulsory school age/Less than 3 years

Reference period: The age at survey year for childage with the exception of Ireland and Finland where childage is the age at the end of the previous of survey year.

SAS program: table4_median.sas

4.3.5.9 Children cared only by their parents by age group – % over the population of each age group



Dataset: Children cared only by their parents by age group -% over the population of each age group

Dissemination tree code: <u>ilc_caparents</u> Data source: EU-SILC

Description: The indicator is defined as the percentage of children cared for, by arrangements of the child's parents either in child's home or elsewhere and with at least one hour of care as a proportion of all children of same age group.

Key indicator(s) included in the dataset: --

Policy relevance: Formal childcare is one main objective of the European employment strategy in order to enhance a lifecycle approach to work and to promote reconciliation between work and family life. Therefore policies regarding childcare provision are necessary. Specific efforts are also needed to tackle regional disparities within countries. The increase in the average employment rate of parents, especially single parents, who are usually exposed to higher poverty risk, requires measures to support families. In particular, Member States should take account of the special needs of single parents and families with many children. The formal childcare indicator monitors progress helping people of all ages to find jobs and removing barriers that prevent them from doing so.

Statistical population: The childcare target population consists of all household members below the age of 12 years old. Children living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of children in the total childcare population

Main concepts used:

Parent childcare **duration**, which is used in this dataset, consists of the aggregate of the arranged childcare hours that can't be allocated in none of the six EU – SILC variables: education at pre – school (RL010), education at compulsory education (RL020), childcare at centre – based services outside school hours (RL030) and childcare at day – care centre (RL040), child care by a professional child-minder at child's home or at child-minders's home (RL050), child care by grand-parents, other household members (outside parents), other relatives, friends or neighbours (RL060).

Other concepts: Child age (CHILDAGE)

Calculation method: This dataset describes the distribution of children cared ($PARCSHARE_{at_CHILDAGE_DURATION}$) for by arrangements of the child's parents either in child's home or elsewhere and with at least one hour of care broken down by age as a proportion of all children of same age group. The weight variable used is the Child Weight.

$$PARCSHARE_{at_CHILDAGE/DURATION} = \frac{\sum_{i_at_CHILDAGE/DURATION>=1}}{\sum_{\forall i_at_CHILDAGE}} \cdot 100$$

Methodological issues:

- Comparability is restricted across countries because of differences among countries due to the age of admission to compulsory primary education. This kind of lack of comparability will be quite difficult to reduce or eliminate, as it would imply a harmonisation of the national educational systems. In addition, the comparability is also restricted due to different length of maternity leave in the countries.
- The comparability over time is restricted because of the shortness of the time series. For a large number of countries data are available from 2005 onwards.
- Health care data on resources and patients are largely based on administrative data sources in the countries. Therefore, they reflect the country-specific way of organising health care and may not always be completely comparable.

Breakdowns: The dataset provides percentages for the whole population broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Age: From 3 years to minimum compulsory school age/Less than 3 years

Reference period: The age at survey year for childage with the exception of Ireland and Finland where childage is the age at the end of the previous of survey year.

SAS program: table5.sas

4.4 Material deprivation (ilc_md)

The Material deprivation main node includes the following sub-nodes:

- Material deprivation by dimension (ilc_mddd)
- Economic strain (ilc_mdes)
- Economic strain linked to dwelling (ilc_mded)
- Durables (ilc_mddu)
- Housing deprivation (ilc_mdho)
- Environment of the dwelling (ilc_mddw)

4.4.1 Material deprivation by dimension (ilc_mddd)

The following section presents the tables for the various indicators belonging in the node 'Material deprivation by dimension'.

4.4.1.1 Material deprivation rate – Economic strain and durables dimension



Dataset: Material deprivation rate – Economic strain and durables dimension **Dissemination tree code:** <u>ilc_sip8</u> **Data source:** EU-SILC

Description: Persons (as percentage of persons in the total population or as thousands of persons) in the relevant age and sex breakdowns who are <u>materially deprived</u>, based on their inability to afford to pay:

No items - 1 item - 2 items - Fewer than 3 items - 3 items - 3 items or more - Fewer than 4 items - 4 items - 4 items or more - Fewer than 5 items - 5 items - 5 items or more - 6 items - 7 items - 8 items - 9 items from the list of material deprivation items.

Key indicator(s) included in the dataset: Material deprivation rate (OMC indicator)

Policy relevance: The measurement of material deprivation has been regularly on the EU agenda since 2004 but it is only since 2009 that two indicators have been formally agreed and added to the EU set of indicators for social inclusion. These two indicators concern the deprivation rate, defined as the proportion of people living in households who lack at least three of these nine items because they cannot afford them, and the intensity of deprivation, that is the mean number of items (from 0 to 9) lacked by people. It is foreseen that both indicators will improve the multi-dimensional coverage of the EU portfolio of indicators for social inclusion. Moreover, they will contribute in the better understanding of the possible differences between income poverty and material deprivation and the analysis of the factors

underlying the relationship between these two measures.

The **Material Deprivation Rate** is an indicator in the EU-SILC survey that expresses the inability to afford some items considered by most people to be desirable or even necessary to lead an adequate life. The indicator distinguishes between individuals who cannot afford a certain good or service, and those who do not have this good or service for another reason, e.g. because they do not want or do not need it.

Statistical population: All persons living in private households. People with missing values for any of the nine deprivation items, age or gender are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population, thousands of persons

Main concepts used:

Materially Deprived are characterised those individuals being at the state of economic strain and durables strain, defined as the state of enforced inability to pay unexpected expenses, afford a one-week annual holiday away from home, a meal involving meat, chicken or fish every second day, the adequate heating of a dwelling, durable goods like a washing machine, colour television, telephone or car, being confronted with payment arrears (mortgage or rent, utility bills, hire purchase instalments or other loan payments).

Other concepts: <u>Material deprivation (MD)</u>, <u>Age</u>

Calculation method: Let N_ITEM be the total number of items that a person cannot afford to pay, with N_ITEM ranging from 0 to 9. Material deprivation rate broken down by age and sex $(DEPR_TOTL_{at_age/sex})$ is calculated as the percentage of people (or thousands of people) in each age group and sex who **cannot** afford to pay N_ITEM of 'material deprivation items' (see <u>Material deprivation (MD)</u>). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$DEPR_TOTL_{at_age/sex} = \frac{\sum_{i=at age/sex_where N_ITEM = j} RB050a_{i}}{\sum_{\forall i_at_age/sex} RB050a_{i}} \cdot 100$$

$$DEPR_TOTL_{at_age/sex} = \frac{\bigvee_{i_at age/sex_where N_ITEM = j}}{1000}$$

, where *j* takes the values: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, Less than 3 (i.e. 0-2), Less than 4 (i.e. 0-3), Less than 5 (i.e. 0-4), More than 3 (i.e. 3-9), More than 4 (i.e. 4-9) and More than 5 (i.e. 5-9).

Methodological issues:

• The comparability of material deprivation indicators between countries is an issue for consideration. A process of harmonization of material deprivation variables is in progress and aims at improving the comparability of the material deprivation

statistics across countries by harmonizing the wording of the EU guidelines, the national questionnaires as well as the national interview guidelines.

- The transition towards more harmonized statistics along for some countries with the implementation of new questions created some breaks over time. Most changes occur between the 2007 and 2008 operation.
- It is foreseen that the list of items supporting this indicator will be reviewed by 2015

Breakdowns: The dataset provides percentages and thousands of persons for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/Less than 6 years/From 6 to 11 years/From 12 to 17 years/Less than 18 years/From 18 to 64 years/65 years or over

Reference period: Survey year for sex. Age is the age of the respondent at the end of the income reference period Survey year also for variables related to the items in question, except for the variables on arrears that refer to the last 12 months.

SAS program: ov9b.sas

4.4.1.2 Mean number of deprivation items among the deprived – Economic strain and durables dimension



Dataset: Mean number of deprivation items among the deprived – Economic strain and durables dimension

Dissemination tree code: <u>ilc_sis4</u>

Data source: EU-SILC

Description: Average number of deprivation items broken down by age and sex of <u>materially deprived</u> persons.

Key indicator(s) included in the dataset: Depth of material deprivation (OMC indicator)

Policy relevance: The mean number of items (from 0 to 9) lacked by people reflects the intensity of deprivation. This indicator, together with the deprivation rate, are the two main indicators formally agreed and added to the EU set of indicators for social inclusion, aiming at the measurement of material deprivation. It is foreseen that both indicators will improve the multi-dimensional coverage of the EU portfolio of indicators for social inclusion. Moreover, they will contribute in the better understanding of the possible differences between income poverty and material deprivation and the analysis of the factors underlying the relationship between these two measures.

Statistical population: All persons living in private households that are considered materially deprived. People with missing values for any of the nine deprivation items, age or sex are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Average number of items

Main concepts used:

Materially Deprived are characterised those individuals being at the state of economic strain and durables strain, defined as the state of enforced inability to pay unexpected expenses, afford a one-week annual holiday away from home, a meal involving meat, chicken or fish every second day, the adequate heating of a dwelling, durable goods like a washing machine, colour television, telephone or car, being confronted with payment arrears (mortgage or rent, utility bills, hire purchase instalments or other loan payments).

These individuals are considered deprived when they cannot afford paying for <u>at least 3</u> of the nine <u>Material deprivation (MD)</u>.

Other concepts: Material deprivation (MD), Age

Calculation method: Let N_ITEM be the total number of items that a person cannot afford to pay. Mean number of deprivation items broken down by age and sex $(MEAN_TOTL_{at_age/sex_where N_ITEM \ge 3})$ is calculated as the weighted average number of items lacked by persons in each age group and sex who **cannot** afford to pay **at least 3** of 'material deprivation items' (see <u>Material deprivation (MD)</u>). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$MEAN_TOTL_{at_age/sex_where N_ITEM\ge 3} = \frac{\sum_{i=1}^{N} N_ITEM_{i} \cdot RB050a_{i}}{\sum_{i=1}^{N} RB050a_{i}}$$

Methodological issues:

- The comparability of material deprivation indicators between countries is an issue for consideration. A process of harmonization of material deprivation variables is in progress and aims at improving the comparability of the material deprivation statistics across countries by harmonizing the wording of the EU guidelines, the national questionnaires as well as the national interview guidelines.
- The transition towards more harmonized statistics along for some countries with the implementation of new questions created some breaks over time. Most changes occur between the 2007 and 2008 operation.
- It is foreseen that the list of items supporting this indicator will be reviewed by 2015

Breakdowns: The dataset provides the average number of deprivation items among the total population of derived persons and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time

- Sex (SEX): Total/Male/Female
- Age: Total/Less than 18 years/From 18 to 64 years/65 years or over

Reference period: Survey year for sex. Age is the age of the respondent at the end of the income reference period Survey year also for variables related to the items in question, except for the variables on arrears that refer to the last 12 months.

SAS program: ov9b.sas

4.4.1.3 Material deprivation for the 'Economic strain' dimension, by number of item



Dataset: Material deprivation for the 'Economic strain' dimension, by number of item **Dissemination tree code:** <u>ilc_mddd01</u> **Data source:** EU-SILC

Data source: EU-SILC

Description: Percentage of persons in the total population and in the relevant household type and income group breakdowns who are <u>materially deprived</u> for the 'Economic strain' dimension, based on their inability to afford to pay: No items -1 item -2 items -3 items -4 items -5 items from the list of material deprivation items mentioned below (see *Main concepts used*).

Key indicator(s) included in the dataset: -

Policy relevance: Information on the lack of essential durables or difficulties in payments provides a good proxy of persistent poverty since they reflect absence of sufficient (permanent) resources rather than of adequate current income. The economic strain dimension focuses mainly on affordability of some aspects of living standards (meal, home warm and holidays, etc.).

Statistical population: All persons living in private households. People with missing values for any of the deprivation items in the 'Economic strain' dimension, household type or equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Materially Deprived for the 'Economic strain' dimension are characterised those individuals being at the state of economic strain, defined as the state of enforced inability to afford one or more of the following items:

- Keeping home adequately warm
- Afford paying for one-week annual holiday away from home
- Afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day
- Face unexpected financial expenses
- Being confronted with payment arrears (mortgage or rent, utility bills, hire purchase

instalments or other loan payments).

Other concepts: <u>Median equivalised disposable income (MEDIAN 20)</u>, <u>Household types</u> (<u>HHTYP</u>)

Calculation method: Let N_ITEM be the total number of items in the 'Economic strain' dimension that a person cannot afford to pay, with N_ITEM ranging from 0 to 5. Material deprivation for the 'Economic strain' dimension broken down by household type and income group ($DEPR_ECON_{at_hhtyp/incgrp}$) is calculated as the percentage of people in each household type (HHTYP) and income group (INCGRP) who **cannot** afford to pay N_ITEM of material deprivation items for the 'Economic strain' dimension (see *Main concepts used* above). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$DEPR_ECON_{at_hhtyp/incgrp} = \frac{\sum_{i_at hhtyp/incgrp_where N_ITEM=j} RB050a_{i}}{\sum_{\forall i_at hhtyp/incgrp} RB050a_{i}} \cdot 100$$

, where j = 0, 1, 2, 3, 4, 5 denotes the number of deprivation items for the 'Economic strain' dimension as defined above.

Methodological issues:

- The comparability of material deprivation indicators between countries is an issue for consideration. A process of harmonization of material deprivation variables is in progress and aims at improving the comparability of the material deprivation statistics across countries by harmonizing the wording of the EU guidelines, the national questionnaires as well as the national interview guidelines.
- The transition towards more harmonized statistics along for some countries with the implementation of new questions created some breaks over time. Most changes occur between the 2007 and 2008 operation.
- It is foreseen that the list of items supporting this indicator will be reviewed by 2015

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Household type (HHTYP): Total/Single person/One adult younger than 65 years/One adult older than 65 years/Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years/Two adults, at least one aged 65 years and over/Two adults with one dependent child/Two adults with two dependent children/Two adults with three or more dependent children/Three or more adults/Three or more adults with dependent children/Households without dependent children/Households with dependent children
- Income group (INCGRP): Below 60% of median equivalised income/Above 60%

of median equivalised income/Total

Reference period: Survey year for demographic variables and variables related to deprivation items, except for the variables on arrears that refer to the last 12 months. Income reference period for income variables with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mddd01.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.1.4 Material deprivation for the 'Durables' dimension, by number of item



Dataset: Material deprivation for the 'Durables' dimension, by number of item **Dissemination tree code:** <u>ilc_mddd02</u>

Data source: EU-SILC

Description: Percentage of persons in the total population and in the relevant household type and income group breakdowns who are <u>materially deprived</u> for the 'Durables' dimension, based on their inability to afford to pay:

No items -1 item -2 items -3 items -4 items -5 items from the list of material deprivation items mentioned below (see *Main concepts used*).

Key indicator(s) included in the dataset: -

Policy relevance: Information on the lack of essential durables or difficulties in payments provides a good proxy of persistent poverty since they reflect absence of sufficient (permanent) resources rather than of adequate current income.

The introduction of the enforced lack of a computer in the list of selected items was also proposed by the Task Force on deprivation (Eurostat, January 2009), but not retained, as the cumulated percentage of people considering this item as absolutely necessary or necessary was close to 30%, at the EU level. Furthermore, there appear to be large variations between age groups in the valuation of the computer.

Statistical population: All persons living in private households. People with missing values for any of the deprivation items in the 'Durables' dimension, household type or equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Materially Deprived for the 'Durables' dimension are characterised those individuals being at the state of durable strain, defined as the state of enforced lack of one or more of the following items:

- Telephone
- Colour TV

- Computer
- Washing machine
- Personal car

Other concepts: Median equivalised disposable income (MEDIAN 20), Household types (HHTYP)

Calculation method: Let N_ITEM be the total number of items in the 'Durables' dimension that a person cannot afford to pay, with N_ITEM ranging from 0 to 5. Material deprivation for the 'Durables' dimension broken down by household type and income group $(DEPR_DUR_{at_hhtyp/incgrp})$ is calculated as the percentage of people in each household type (HHTYP) and income group (INCGRP) who **cannot** afford to pay N_ITEM of material deprivation items for the 'Durables' dimension (see *Main concepts used* above). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$DEPR_DUR_{at_hhtyp/incgrp} = \frac{\sum_{i=at hhtyp/incgrp_where N_ITEM=j} RB050a_{i}}{\sum_{\forall i_at hhtyp/incgrp} RB050a_{i}} \cdot 100$$

, where j = 0, 1, 2, 3, 4, 5 denotes the number of deprivation items for the 'Durables' dimension as defined above.

Methodological issues:

- The comparability of material deprivation indicators between countries is an issue for consideration. A process of harmonization of material deprivation variables is in progress and aims at improving the comparability of the material deprivation statistics across countries by harmonizing the wording of the EU guidelines, the national questionnaires as well as the national interview guidelines.
- The transition towards more harmonized statistics along for some countries with the implementation of new questions created some breaks over time. Most changes occur between the 2007 and 2008 operation.
- It is foreseen that the list of items supporting this indicator will be reviewed by 2015

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Household type (HHTYP): Total/Single person/One adult younger than 65 years/One adult older than 65 years/Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years/Two adults, at least one aged 65 years and over/Two adults with one dependent child/Two adults with two dependent children/Two adults with three or more dependent children/Three or more adults/Three or more adults with dependent children/Households without dependent children/Households with dependent children
- Income group (INCGRP): Below 60% of median equivalised income/Above 60%

of median equivalised income/Total

Reference period: Survey year for demographic variables and variables related to deprivation items. Income reference period for income variables with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mddd02.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.1.5 Material deprivation for the 'Economic strain' and 'Durables' dimensions, by number of item



Dataset: Material deprivation for the 'Economic strain' and 'Durables' dimensions, by number of item

Dissemination tree code: <u>ilc_mddd03</u> **Data source:** EU-SILC

Description: Percentage of persons in the total population and in the relevant household type and income group breakdowns who are <u>materially deprived</u> for both the 'Economic strain' and 'Durables' dimension, including in the latter the inability to afford a computer, based on their inability to afford to pay:

No items -1 item -2 items -3 items -4 items -5 items or more from the list of material deprivation items mentioned below (see *Main concepts used*).

Key indicator(s) included in the dataset: -

Policy relevance: The items covered in the EU indicators of material deprivation are items referring to financial stress and possession of durable goods that are the dimensions that have been shown to have stronger relationship with income than others such as housing conditions or local environment. Some items included in the EU measures are directly linked to current income; this is the case for 'the capacity to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day'. The possession of a car can be seen as an 'investment', which makes the deprivation indicators closer to 'permanent income' measures and which makes them also more consistent with the stage of the life cycle reached by individuals than what can be estimated through current income approaches. Finally, an item such as the ability to face unexpected expenses is more related to savings.

Statistical population: All persons living in private households. People with missing values for any of the ten deprivation items, household type or equivalised disposable income are
excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Materially Deprived are characterised those individuals being at the state of economic strain and durables strain, defined as the state of enforced inability to pay unexpected expenses, afford a one-week annual holiday away from home, a meal involving meat, chicken or fish every second day, the adequate heating of a dwelling, durable goods like a washing machine, colour television, telephone or car, being confronted with payment arrears (mortgage or rent, utility bills, hire purchase instalments or other loan payments).

The definition of this indicator also covers the enforced inability to afford a computer, as part of the 'Durables' dimension. This item is not included in the list of the nine <u>Material</u> <u>deprivation (MD)</u> items.

Other concepts: <u>Material deprivation (MD)</u>, <u>Median equivalised disposable income</u> (MEDIAN 20), <u>Household types (HHTYP)</u>

Calculation method: Let N_ITEM be the total number of items that a person cannot afford to pay, with N_ITEM ranging from 0 to 10. Material deprivation for the 'Economic strain' and 'Durables' dimension broken down by household type and income group $(DEPR_TOTL_{at_hhtyp/incgrp})$ is calculated as the percentage of people in each household type (HHTYP) and income group (INCGRP) who **cannot** afford to pay N_ITEM of 'material deprivation items' (see *Main concepts used* above). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$DEPR_TOTL_{at_hhtyp/incgrp} = \frac{\sum_{i_at hhtyp/incgrp_where N_ITEM=j} RB050a_{i}}{\sum_{\forall i_at hhtyp/incgrp} RB050a_{i}} \cdot 100$$

, where j = 0, 1, 2, 3, 4, 5 items or more denotes the number of material deprivation items as defined above.

Methodological issues:

- The comparability of material deprivation indicators between countries is an issue for consideration. A process of harmonization of material deprivation variables is in progress and aims at improving the comparability of the material deprivation statistics across countries by harmonizing the wording of the EU guidelines, the national questionnaires as well as the national interview guidelines.
- The transition towards more harmonized statistics along for some countries with the implementation of new questions created some breaks over time. Most changes occur between the 2007 and 2008 operation.
- It is foreseen that the list of items supporting this indicator will be reviewed by 2015

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Household type (HHTYP): Total/Single person/One adult younger than 65 years/One adult older than 65 years/Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years/Two adults, at least one aged 65 years and over/Two adults with one dependent child/Two adults with two dependent children/Two adults with three or more dependent children/Three or more adults/Three or more adults/Three or more adults with dependent children/Households without dependent children/Households with dependent children
- Income group (INCGRP): Below 60% of median equivalised income/Above 60% of median equivalised income/Total

Reference period: Survey year for demographic variables and variables related to deprivation items, except for the variables on arrears that refer to the last 12 months. Income reference period for income variables with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mddd03.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.1.6 Material deprivation for the 'Housing' dimension, by household type, poverty status and by number of item



Dataset: Material deprivation for the 'Housing' dimension, by household type, poverty status and by number of item

Dissemination tree code: <u>ilc_mddd04a</u> **Data source:** EU-SILC

Description: Percentage of persons in the total population and in the relevant household type and poverty status breakdowns who are materially deprived for the 'Housing' dimension, based on the dwelling problems suffered from:

No items -1 item -2 items -3 items -4 items from the list of housing deprivation items mentioned below (see *Main concepts used*).

Key indicator(s) included in the dataset: -

Policy relevance: Housing is a key element of the risk of poverty and social exclusion. The quality of housing affects not only living standards but also social relations and even access to employment. At the same time, housing deficiencies are a major element of deprivation. Housing quality can be assessed by the physical characteristics of the dwelling (i.e. housing space, availability of heating or indoor flushing toilet, or state of repair).

Statistical population: All persons living in private households. People with missing values for any of the housing deprivation items, household type or equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Materially Deprived for the 'Housing' dimension are characterised those individuals being at the state of housing deprivation, defined as the state of suffering one or more of the following dwelling problems:

- Leaking roof / damp walls / floors / foundation or rot in window frames
- Accommodation too dark
- No bath/shower
- No indoor flushing toilet for sole use of the household

Other concepts: <u>Household types (HHTYP)</u>, <u>Poverty status (ARPTXXi)</u>, <u>Median</u> equivalised disposable income (MEDIAN 20)

Calculation method: Let N_ITEM be the total number of housing items (dwelling problems) in the 'Housing' dimension that a person is deprived of, with N_ITEM ranging from 0 to 4. Material deprivation for the 'Housing' dimension broken down by household type and poverty status ($DEPR_HOUS_{at_hhtyp/incgrp}$) is calculated as the percentage of people in each household type (HHTYP) and poverty status (INCGRP) who **are deprived** of N_ITEM from the list of housing deprivation items (see *Main concepts used* above). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$DEPR_HOUS_{at_hhtyp/incgrp} = \frac{\sum_{i_at hhtyp/incgrp_where N_ITEM=j} RB050a_{i}}{\sum_{\forall i_at hhtyp/incgrp} RB050a_{i}} \cdot 100$$

, where j = 0, 1, 2, 3, 4 denotes the number of deprivation items for the 'Housing' dimension as defined above.

Methodological issues:

- The EU does not have any responsibilities in respect of housing; rather, national governments develop their own housing policies that affect comparability between the countries.
- The transition towards more harmonized statistics along for some countries with the implementation of new questions created some breaks over time. Most changes occur between the 2007 and 2008 operation.
- It is foreseen that the list of items supporting this indicator will be reviewed by 2015

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

• Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)

- Time
- Household type (HHTYP): Total/Single person/One adult younger than 65 years/One adult older than 65 years/Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years/Two adults, at least one aged 65 years and over/Two adults with one dependent child/Two adults with two dependent children/Two adults with three or more dependent children/Three or more adults/Three or more adults with dependent children/Households with dependent children/Households with dependent children/Households with dependent children.
- Poverty status (INCGRP): Below 60% of median equivalised income/Above 60% of median equivalised income/Total

Reference period: Survey year for demographic variables and variables related to deprivation items. Income reference period for income variables with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mddd04.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.1.7 Material deprivation for the 'Housing' dimension, by age, sex and by number of item



Dataset: Material deprivation for the 'Housing' dimension, by age, sex and by number of item

Dissemination tree code: <u>ilc_mddd04b</u> **Data source:** EU-SILC

Description: Percentage of persons in the total population and in the relevant age and sex breakdowns who are materially deprived for the 'Housing' dimension, based on the dwelling problems suffered from:

No items -1 item -2 items -3 items -4 items from the list of housing deprivation items mentioned below (see *Main concepts used*).

Key indicator(s) included in the dataset:

- Housing deprivation by number of items; by sex and age group (OMC indicator)
- Housing deprivation (65+) (JAF indicator)

Policy relevance: Housing is a key element of the risk of poverty and social exclusion. The quality of housing affects not only living standards but also social relations and even access to employment. At the same time, housing deficiencies are a major element of deprivation. Housing quality can be assessed by the physical characteristics of the dwelling (i.e. housing space, availability of heating or indoor flushing toilet, or state of repair).

Statistical population: All persons living in private households. People with missing values for any of the housing deprivation items, age or sex are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Materially Deprived for the 'Housing' dimension are characterised those individuals being at the state of housing deprivation, defined as the state of suffering one or more of the following dwelling problems:

- Leaking roof / damp walls / floors / foundation or rot in window frames
- Accommodation too dark
- No bath/shower
- No indoor flushing toilet for sole use of the household

Other concepts: <u>Age</u>

Calculation method: Let N_ITEM be the total number of housing items (dwelling problems) in the 'Housing' dimension that a person is deprived of, with N_ITEM ranging from 0 to 4. Material deprivation for the 'Housing' dimension broken down by age and sex $(DEPR_HOUS_{at_age/sex})$ is calculated as the percentage of people in each age and sex group who **are deprived** of N_ITEM from the list of housing deprivation items (see *Main concepts used* above). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$DEPR_HOUS_{at_age/sex} = \frac{\sum_{i_at age/sex_where N_ITEM=j} RB050a_{i}}{\sum_{\forall i_at age/sex} RB050a_{i}} \cdot 100$$

, where j = 0, 1, 2, 3, 4 denotes the number of deprivation items for the 'Housing' dimension as defined above.

Methodological issues:

- The EU does not have any responsibilities in respect of housing; rather, national governments develop their own housing policies that affect comparability between the countries.
- The transition towards more harmonized statistics along for some countries with the implementation of new questions created some breaks over time. Most changes occur between the 2007 and 2008 operation.
- It is foreseen that the list of items supporting this indicator will be reviewed by 2015

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/Less than 18 years/From 18 to 64 years/65 years or over

Reference period: Survey year for sex and other demographic variables. Age is the age of

the respondent at the end of the income reference period.

SAS program: _mddd04.sas

4.4.1.8 Material deprivation for the 'Environment' dimension, by number of item



Dataset: Material deprivation for the 'Environment' dimension, by number of item **Dissemination tree code:** <u>ilc_mddd05</u>

Data source: EU-SILC

Description: Percentage of persons in the total population and in the relevant household type and income group breakdowns who are materially deprived for the 'Environment' dimension, based on the dwelling problems suffered from: No items -1 item -2 items -3 items from the list of material deprivation items mentioned below (see *Main concepts used*).

Key indicator(s) included in the dataset: -

Policy relevance: Housing quality depends not only on the quality of the dwelling itself, but also on the wider residential area (local environment of the dwelling). On that specific dimension of environment, the main argument in favour of having a composite index is that, kept separate, it can offer valuable and complementary information. The main points raised against its inclusion are related to its urban or subjective nature and to its absence of a clear link with income poverty.

Statistical population: All persons living in private households. People with missing values for any of the environmental deprivation items, household type or equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Materially Deprived for the 'Environment' dimension are characterised those individuals being at the state of environmental deprivation, defined as the state of being affected by the dwelling's local environment, with reference to the following three items:

- Noise from neighbours or from the street
- Pollution, grime or other environmental problems
- Crime, violence or vandalism in the area

Other concepts: <u>Household types (HHTYP)</u>, <u>Median equivalised disposable income</u> (MEDIAN 20)

Calculation method: Let N_ITEM be the total number of items (dwelling problems) in the 'Environment' dimension from which a person suffers, with N_ITEM ranging from 0 to 3. Material deprivation for the 'Environment' dimension broken down by household type and

income group $(DEPR_ENV_{at_hhtyp/incgrp})$ is calculated as the percentage of people in each household type (HHTYP) and income group (INCGRP) who **suffer from** N_ITEM of environmental deprivation items (see *Main concepts used* above). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$DEPR_ENV_{at_hhtyp/incgrp} = \frac{\sum_{i=at hhtyp/incgrp_where N_ITEM=j} RB050a_{i}}{\sum_{\forall i_at hhtyp/incgrp} RB050a_{i}} \cdot 100$$

, where j = 0, 1, 2, 3 denotes the number of deprivation items for the 'Environment' dimension as defined above.

Methodological issues:

- The transition towards more harmonized statistics along for some countries with the implementation of new questions created some breaks over time. Most changes occur between the 2008 and 2009 operation.
- It is foreseen that the list of items supporting this indicator will be reviewed by 2015

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Household type (HHTYP): Total/Single person/One adult younger than 65 years/One adult older than 65 years/Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years/Two adults, at least one aged 65 years and over/Two adults with one dependent child/Two adults with two dependent children/Two adults with three or more dependent children/Three or more adults/Three or more adults with dependent children/Households without dependent children/Households with dependent children
- Income group (INCGRP): Below 60% of median equivalised income/Above 60% of median equivalised income/Total

Reference period: Survey year for demographic variables and variables related to deprivation items. Income reference period for income variables with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mddd05.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.1.9 Severe material deprivation rate by age and sex



Dataset: Severe material deprivation rate by age and sex **Dissemination tree code:** <u>ilc_mddd11</u>

Data source: EU-SILC

Description: Persons (as percentage of persons in the total population or as thousands of persons) in the relevant age and sex breakdowns who are <u>severely materially deprived</u>.

Key indicator(s) included in the dataset:

- Severely materially deprived people (EU2020 indicator)
- Severe material deprivation rate (4+ items) (JAF indicator)
- Children living in a household suffering from severe material deprivation (4+) (JAF indicator)
- Severe Material deprivation of older people (65+) by sex (JAF indicator)

Policy relevance: In the context of the Europe 2020 strategy, the European Council adopted in June 2010 a headline target on social inclusion. EU-SILC is the source for this indicator concerning people at-risk-of-poverty or social exclusion which combines three sub-indicators: the at-risk-of-poverty rate, *severe material deprivation rate* and people living in households with very low work intensity. One of the targets set to measure progress in meeting the Europe 2020 goals is that for the EU-27 as a whole there will be at least 20 million fewer people at-risk-of poverty or social exclusion by 2020.

The *severe material deprivation rate* refers to the situation of people who cannot afford a number of necessities considered essential to live a decent life in Europe. It both reflects the distribution of resources within a country as well as the differences in living standards across Europe and the impact of growth on improving these, especially in the countries with lower GDP per capita.

Statistical population: All persons living in private households. People with missing values for any of the nine deprivation items, age or sex are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population, thousands of persons

Main concepts used:

Severely Materially Deprived (SEV_DEP) are characterised those individuals being at the state of enforced inability to pay for <u>at least four</u> of the following nine material deprivation items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat, fish, or a protein equivalent every second day, 5) to enjoy a week of holiday away from home once a year, 6) to have a colour television, 7) to have a washing machine, 8) to have a car, 9) to have a telephone (see <u>Material deprivation (MD)</u>).

Other concepts: Material deprivation (MD), Age

Calculation method: Let N_ITEM be the total number of items that a person cannot afford to pay, with N_ITEM ranging from 4 to 9. Severe material deprivation rate broken down by age and sex $(SEV_DEPR_TOTL_{at_age/sex})$ is calculated as the percentage of people (or thousands of people) in each age and sex group who **cannot** afford to pay **at least four** of 'material deprivation items' (N_ITEM>=4) (see Material deprivation (MD)). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).



- Time
- Sex (SEX): Total/Male/Female
- Age: Total/Less than 6 years/From 6 to 10 years/From 6 to 11 years/From 11 to 15 years/From 12 to 17 years/Less than 16 years/From 16 to 24 years/From 16 to 64 years/16 years or over/Less than 18 years/From 18 to 24 years/From 18 to 64 years/18 years or over/From 25 to 49 years/From 25 to 54 years/From 50 to 64 years/55 years or over/Less than 60 years/60 years or over/Less than 65 years/From 65 to 74 years/65 years or over/Less than 75 years/75 years or over

Reference period: Survey year for sex. Age is the age of the respondent at the end of the income reference period. Survey year also for variables related to the items in question, except for the variables on arrears that refer to the last 12 months.

SAS program: mddd11.sas (VAR_DEP_SEV_EXT_Reliability.sas)

4.4.1.10 Severe material deprivation rate by most frequent activity status (population aged 18 and over)



Dataset: Severe material deprivation rate by most frequent activity status (population aged 18 and over)

Dissemination tree code: <u>ilc_mddd12</u> **Data source:** EU-SILC

Description: Percentage of persons in the total population and in the relevant age, sex and activity status breakdowns who are <u>severely materially deprived</u>.

Key indicator(s) included in the dataset: Severe Material deprivation of older people (65+) by sex (JAF indicator)

Policy relevance: Employment is identified in European policy debates as a key mechanism for offering protection against social exclusion and poverty. More specifically, work is one of the main mechanisms for an overall societal integration. The ability to enter the labour market is a central factor for the development of persons. In the long run, having versus not having work sets the agenda for the integration into or exclusion from society.

As regards materially deprived people, the prevalence of severe material deprivation among unemployed people is higher than within the whole population. One unemployed person in five is severely materially deprived in Europe. This evidence shows that unemployment is more than a temporary loss of resources, but has much wider and longer lasting consequences. At the same time, long-term unemployment is closely linked to severe material deprivation as a result of the cumulative effects of their loss of revenue.

Statistical population: Population aged 18 years and over living in private households. People with missing values for any of the nine deprivation items, age, sex or activity status are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Severely Materially Deprived (SEV_DEP) are characterised those individuals being at the state of enforced inability to pay for <u>at least four</u> of the following nine material deprivation items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat, fish, or a protein equivalent every second day, 5) to enjoy a week of holiday away from home once a year, 6) to have a colour television, 7) to have a washing machine, 8) to have a car, 9) to have a telephone (see

Material deprivation (MD)).

Other concepts: <u>Material deprivation (MD)</u>, <u>Age</u>, <u>Activity Status (ACTSTA)</u>

Calculation method: Let N_ITEM be the total number of items that a person cannot afford to pay, with N_ITEM ranging from 4 to 9. Severe material deprivation rate broken down by age, sex and activity status $(SEV_DEPR_TOTL_{at_age/sex/wstatus})$ is calculated as the percentage of people in each age group, sex and activity status (WSTATUS) who **cannot** afford to pay **at least four** of 'material deprivation items' (N_ITEM>=4) (see <u>Material deprivation (MD)</u>). The weight variable used is the Personal Cross-Sectional Weight (PB040).

$$SEV_DEPR_TOTL_{at_age/sex/wstatus} = \frac{\sum_{i_at_age/sex/wstatus_where N_ITEM = j} \cdot 100}{\sum_{\forall i_at_age/sex/wstatus} PB040_{i}}$$

, where *j* takes the values: 4, 5, 6, 7, 8, 9.

Methodological issues:

- The most frequent activity status is defined as the status that individuals declare themselves to have occupied for more than half the total number of months for which information on any status is available. Consequently, where an individual provides information on his activity status over 12 months, his most frequent activity status will be the status he declares to have occupied for at least 7 months. Individuals who have spent only half or less than the total number of declared months in any activity status are excluded from the computation. People with less than 7 months declared in the calendar of activities are excluded.
- The activity statuses cannot be considered as a perfectly hierarchical structure. Due to the construction of the activity statuses, the subset of the total population 'employed persons' will contain more than the sum of 'employees' and 'employed persons except employees'. The same holds for the subset 'not employed persons'. That is, the breakdowns of 'employed persons' and 'not employed persons' are not exhaustive. This is the case because persons who spend less than half of the reported time in two or more breakdowns of 'employed persons' or 'not employed persons' may qualify as being 'employed person' or 'not employed person' but not any of the breakdowns.
- The most frequent activity status for each month is based on a self-assessment by the interviewees. Therefore, it may not be entirely consistent with the ILO coding that is applied in the European Union Labour Force Survey.
- This indicator measures activity status at the individual level.

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

• Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)

- Time
- Sex (SEX): Total/Male/Female
- Age: From 18 to 24 years/From 18 to 59 years/From 18 to 64 years/From 18 to 74 years/18 years or over/From 25 to 49 years/From 25 to 54 years/From 25 to 59 years/ From 50 to 59 years/From 50 to 64 years/55 years or over/60 years or over/From 65 to 74 years/65 years or over/75 years or over
- Activity status (WSTATUS): Population/Employed persons/Employees/Employed persons except employees/Not employed persons/Unemployed persons/Retired persons/Other inactive persons

Reference period: Survey year for sex. Age is the age of the respondent at the end of the income reference period. Income reference period for activity status with the exceptions of Ireland (moving income reference period) and the UK (survey year). Survey year also for variables related to the items in question, except for the variables on arrears that refer to the last 12 months.

SAS program: mddd12.sas (VAR DEP SEV EXT Reliability.sas, VAR ACTSTA.sas)

4.4.1.11 Severe material deprivation rate by income quintile and household type



Dataset: Severe material deprivation rate by income quintile and household type **Dissemination tree code:** ilc mddd13

Data source: EU-SILC

Description: Percentage of persons in the total population and in the relevant income quintile and household type breakdowns who are severely materially deprived.

Key indicator(s) included in the dataset:

- Severely materially deprived people (EU2020 indicator)
- Severe material deprivation rate (4+ items) (JAF indicator)

Policy relevance: Relative income poverty has been extended to cover the non-monetary dimensions of poverty (material deprivation) and situations of exclusion from the labour market. It is therefore very relevant to analyse why some groups with higher income experience severe material deprivation.

Besides the income inequalities that are observed between countries, the variation of average household incomes between different types of households is also very notable.

Statistical population: All persons living in private households. People with missing values for any of the nine deprivation items, income quintile or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Severely Materially Deprived (SEV_DEP) are characterised those individuals being at the state of enforced inability to pay for <u>at least four</u> of the following nine material deprivation items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat, fish, or a protein equivalent every second day, 5) to enjoy a week of holiday away from home once a year, 6) to have a colour television, 7) to have a washing machine, 8) to have a car, 9) to have a telephone (see <u>Material deprivation (MD)</u>).

Other concepts: Material deprivation (MD), Income quintile, Household types (HHTYP)

Calculation method: Let N_ITEM be the total number of items that a person cannot afford to pay, with N_ITEM ranging from 4 to 9. Severe material deprivation rate broken down by household type and income quintile ($SEV_DEPR_TOTL_{at_hhtyp/quintile}$) is calculated as the percentage of people in each household type (HHTYP) and income quintile group who cannot afford to pay at least four of 'material deprivation items' (N_ITEM>=4) (see Material deprivation (MD)). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$SEV_DEPR_TOTL_{at_hhtyp/quintile} = \frac{\forall i_at \ hhtyp/quintile_where \ N_ITEM = j}{\sum_{\forall i_at \ hhtyp/quintile} RB050a_{i}} \cdot 100$$

, where *j* takes the values: 4, 5, 6, 7, 8, 9.

Methodological issues:

- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Quintile: Total/First quintile/Second quintile/Third quintile/Fourth quintile/Fifth quintile
- Household type (HHTYP): Total/Single person/One adult younger than 65

years/One adult older than 65 years/Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years/Two adults, at least one aged 65 years and over/Two adults with one dependent child/Two adults with two dependent children/Two adults with three or more dependent children/Three or more adults/Three or more adults with dependent children/Households without dependent children/Households with dependent children

Reference period: Survey year for demographic variables and variables related to deprivation items, except for the variables on arrears that refer to the last 12 months. Income reference period for income variables with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mddd13.sas (VAR_DEP_SEV_EXT_Reliability.sas, VAR_HT1.sas, VAR_QITILE.sas)

4.4.1.12 Severe material deprivation rate by education level (population aged 18 and over)



Dataset: Severe material deprivation rate by education level (population aged 18 and over) **Dissemination tree code:** <u>ilc_mddd14</u> **Data source:** EU-SILC

Description: Percentage of persons in the total population and in the relevant age, sex and

education level breakdowns who are severely materially deprived.

Key indicator(s) included in the dataset: Severe Material deprivation of older people (65+) by sex (JAF indicator)

Policy relevance: The role of education in the process of social exclusion, employment and active citizenship has yet to be fully elucidated. Education or schooling increases productivity as it equips individuals' with skills and knowledge. As productivity is reflected in earnings and rates of labour market participation, education offers an important means of social mobility, particularly for the poor. Widespread changes in the economy such as the emergence of high-level service sector jobs have opened up important opportunities, to those with the necessary levels of education. The level of education has a consistent and strong impact on the risk of poverty or social exclusion, and in particular on material deprivation.

Statistical population: Population aged 18 years and over living in private households. People with missing values for any of the nine deprivation items, age, sex or education level are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Severely Materially Deprived (SEV_DEP) are characterised those individuals being at the state of enforced inability to pay for <u>at least four</u> of the following nine material deprivation items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat, fish, or a protein equivalent every second day, 5) to enjoy a week of holiday away from home once a year, 6) to have a colour television, 7) to have a washing machine, 8) to have a car, 9) to have a telephone (see <u>Material deprivation (MD)</u>).

Educational level (attainment) of a person is the highest level of an educational programme the person has successfully completed and the study field of this programme. The educational classification to be used is the International Standard Classification of Education (ISCED 1997) coded according to the seven ISCED-97 categories.

Other concepts: Material deprivation (MD), Age

Calculation method: Let N_ITEM be the total number of items that a person cannot afford to pay, with N_ITEM ranging from 4 to 9. Severe material deprivation rate broken down by age, sex and education level ($SEV_DEPR_TOTL_{at_age/gender/ISCED97}$) is calculated as the percentage of people in each age group, sex and education level (ISCED97) who **cannot** afford to pay **at least four** of 'material deprivation items' (**N_ITEM>=4**) (see <u>Material deprivation (MD)</u>). The weight variable used is the Personal Cross-Sectional Weight (PB040).

$$SEV_DEPR_TOTL_{at_age/sex/ISCED97} = \frac{\forall i_at age/sex/ISCED97_where N_ITEM = j}{\sum_{\forall i_at_age/sex/ISCED97} PB040_{i}} \cdot 100$$

, where *j* takes the values: 4, 5, 6, 7, 8, 9.

Methodological issues:

- ISCED refers to the International Standard Classification of Education, developed by UNESCO. The version of the classification that is applied for this indicator follows the 1997 version of ISCED.
- In face of the diversity of national education systems (with regard to curricula, compulsory schooling ages, equivalences between qualifications and other elements) one should be careful in making cross-country comparisons.

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: From 18 to 24 years/From 18 to 59 years/From 18 to 64 years/From 18 to 74 years/18 years or over/From 25 to 49 years/From 25 to 54 years/From 25 to 59

years/ From 50 to 59 years/From 50 to 64 years/55 years or over/60 years or over/From 65 to 74 years/65 years or over/75 years or over

• Education level (ISCED97): All ISCED 1997 levels/Pre-primary, primary and lower secondary education (levels 0-2)/Upper secondary and post-secondary non-tertiary education (levels 3 and 4)/First and second stage of tertiary education (levels 5 and 6)

Reference period: Survey year for sex and education level. Age is the age of the respondent at the end of the income reference period. Survey year also for variables related to the items in question, except for the variables on arrears that refer to the last 12 months.

SAS program: mddd14.sas (VAR_DEP_SEV_EXT_Reliability.sas)

4.4.1.13 Severe material deprivation rate by broad group of citizenship (population aged 18 and over)

eurostat

Dataset: Severe material deprivation rate by broad group of citizenship (population aged 18 and over)

Dissemination tree code: <u>ilc_mddd15</u> **Data source:** EU SU C

Data source: EU-SILC

Description: Percentage of persons in the total population and in the relevant age, sex and group of citizenship breakdowns who are <u>severely materially deprived</u>.

Key indicator(s) included in the dataset: Severe Material deprivation of older people (65+) by sex (JAF indicator)

Policy relevance: Non-EU nationals are occasionally exposed to a multiple times higher risk of poverty and social exclusion than the "indigenous" population. Non-nationals, and in particular third-country nationals, may be subject to immigration restrictions on entering and remaining within a country, as well as limitations on access to the labour market. EU nationals have the right to live in other EU Member States, although there remain some transitional labour market restrictions. The integration of third-country nationals has been identified as a particular policy priority at European level, as well as in many Member States.

Statistical population: Population aged 18 and over living in private households. People with missing values for any of the nine deprivation items, age, sex or citizenship group are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Severely Materially Deprived (SEV_DEP) are characterised those individuals being at the

state of enforced inability to pay for <u>at least four</u> of the following nine material deprivation items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat, fish, or a protein equivalent every second day, 5) to enjoy a week of holiday away from home once a year, 6) to have a colour television, 7) to have a washing machine, 8) to have a car, 9) to have a telephone (see Material deprivation (MD)).

Other concepts: <u>Material deprivation (MD)</u>, <u>Age</u>, <u>Citizenship group (CITIZEN)</u>

Calculation method: Let N_ITEM be the total number of items that a person cannot afford to pay, with N_ITEM ranging from 4 to 9. Severe material deprivation rate broken down by age, sex and broad group of citizenship $(SEV_DEPR_TOTL_{at_age/sex/citizen})$ is calculated as the percentage of people in each age group, sex and citizenship group (CITIZEN) who cannot afford to pay at least four of 'material deprivation items' (N_ITEM>=4) (see Material deprivation (MD)). The weight variable used is the Personal Cross-Sectional Weight (PB040).

$$SEV_DEPR_TOTL_{at_age/sex/citizen} = \frac{\sum_{i_at_age/sex/citizen_where N_ITEM = j} PB040_{i}}{\sum_{\forall i_at_age/sex/citizen} PB040_{i}} \cdot 100$$

, where *j* takes the values: 4, 5, 6, 7, 8, 9.

Methodological issues:

- Citizenship is defined as the particular legal bond between an individual and his/her State, acquired by birth or naturalization, whether by declaration, option, marriage or other means according to the national legislation.
- For persons with multiple citizenship and where one of the citizenship is the one of the country of residence, this latter citizenship is recorded/coded.
- Citizenship is referred to the current (at the time of survey) national boundaries and not the boundaries at the time of the reference period. In the case of citizenships that no longer exist, the present-day borders of the country are used.
- Current EU-SILC question only explores the stock of non-EU nationals, with no information on how long they have been in the country.
- The EU-SILC only covers private households, with persons living in collective households and in institutions for asylum seekers and migrant workers excluded from the target population
- There is no information on ethnic status of respondents. So ethnic minorities, including the Roma cannot be identified in EU-SILC. In addition, the categorization of the groups into "EU" and "non-EU" is rather broad and the groups distinguished are too large and heterogeneous.

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

• Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia)

- Time
- Sex (SEX): Total/Male/Female
- Age: From 18 to 54 years/From 18 to 59 years/From 18 to 64 years/18 years or over/From 25 to 54 years/From 25 to 59 years/55 years or over/60 years or over/65 years or over
- Citizenship group (CITIZEN): EU27-countries except reporting country/Non EU27countries nor reporting country/Foreign country/Reporting country

Reference period: Survey year for sex and broad group of citizenship. Age is the age of the respondent at the end of the income reference period. Survey year also for variables related to the items in question, except for the variables on arrears that refer to the last 12 months.

SAS	program:	mddd15.sas	(VAR_DEP	_SEV	_EXT_	Reliability.sas,
VAR_C_BIRTH_CIP_SHIP.sas)						

4.4.1.14 Severe material deprivation rate by broad group of country of birth (population aged 18 and over)



Dataset: Severe material deprivation rate by broad group of country of birth (population aged 18 and over)

Dissemination tree code: <u>ilc_mddd16</u> **Data source:** EU-SILC

Description: Percentage of persons in the total population and in the relevant age, sex and group of country of birth breakdowns who are <u>severely materially deprived</u>.

Key indicator(s) included in the dataset: Severe Material deprivation of older people (65+) by sex (JAF indicator)

Policy relevance: Migrants are considered to be among the most vulnerable groups to experience poverty and social exclusion. In particular non-EU migrants have also been severely affected by the crisis in the context of increasing unemployment. The loss of employment, compounded with the fact that migrants are often employed in sectors where working conditions are particularly flexible, raise serious issues in relation to their access to social security safety nets.

As regards the material deprivation in particular, migrants experience higher rates of poverty than the rest of the population and, all things being equal, non- EU migrants are also more likely to be materially deprived.

Statistical population: Population aged 18 years and over living in private households. People with missing values for any of the nine deprivation items, age, sex or group of country of birth are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Severely Materially Deprived (SEV_DEP) are characterised those individuals being at the state of enforced inability to pay for <u>at least four</u> of the following nine material deprivation items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat, fish, or a protein equivalent every second day, 5) to enjoy a week of holiday away from home once a year, 6) to have a colour television, 7) to have a washing machine, 8) to have a car, 9) to have a telephone (see <u>Material deprivation (MD)</u>).

Other concepts: Material deprivation (MD), Age, Country of birth group (C_BIRTH)

Calculation method: Let N_ITEM be the total number of items that a person cannot afford to pay, with N_ITEM ranging from 4 to 9. Severe material deprivation rate broken down by age, sex and broad group of country of birth $(SEV_DEPR_TOTL_{at_age/sex/c_birth})$ is calculated as the percentage of people in each age and sex group and country of birth group (C_BIRTH) who **cannot** afford to pay **at least four** of 'material deprivation items' (**N_ITEM>=4**) (see <u>Material deprivation (MD)</u>). The weight variable used is the Personal Cross-Sectional Weight (PB040).

$$SEV_DEPR_TOTL_{at_age/sex/c_birth} = \frac{\sum_{i_at_age/sex/c_birth_where N_ITEM = j} PB040_{i}}{\sum_{\forall i_at_age/sex/c_birth} PB040_{i}} \cdot 100$$

, where *j* takes the values: 4, 5, 6, 7, 8, 9.

Methodological issues:

- Country of birth is the country where a person was born, namely the country of usual residence of mother at the time of the birth.
- Country of birth is referred to the current (at the time of survey) national boundaries and not to the boundaries in place at the time of birth.
- In the case of countries that no longer exist (such as parts of the former Soviet Union or others), the present-day borders of the country are used.
- For person born in a place that currently belongs to a country different from the country that the place belonged to at the time of birth, the 'country' which the place belonged to currently (at the time of the survey) is recorded.
- For people born in a place which is now outside the national territory but who feel that they have always been a national citizen, the country of birth should be recorded as according to this citizenship.
- Current EU-SILC question only explores the stock of non-EU nationals, with no information on how long they have been in the country.
- Unlike citizenship, a person's country of birth does not change. The distribution by country of birth is therefore influenced not just by recent migration, but by patterns of migration flows that may have taken place many years previously. Thus, the predominant countries of birth of migrants in a country may reflect particular migration flows that took place decades earlier.
- Patterns of migration may also reflect past colonial and linguistic links, as seen in

the long history of migration from the Indian subcontinent to the United Kingdom, in migration between Ireland and the United Kingdom, between Brazil and Portugal and between Ecuador and Spain and in migration from Suriname to the Netherlands.

- The EU-SILC only covers private households, with persons living in collective households and in institutions for asylum seekers and migrant workers excluded from the target population.
- Migrants and more particularly recently arrived migrants are likely to be under- covered by EU-SILC. Some migrants will have been missed from the sampling frame (which is designed to ensure a representative coverage of the overall population, rather than specifically migrants). These coverage problems may be hard to assess and correct because of a lack of reliable information on the numbers of migrants in specific areas.
- In Member States in which the number of migrants is very small EU-SILC, given its nature as sample survey, is not capable of fully capturing the characteristics of the people concerned.
- There is no information on ethnic status of respondents. In addition, the categorization of the groups into "EU" and "non-EU" is rather broad and the groups distinguished are too large and heterogeneous.

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: From 18 to 54 years/From 18 to 59 years/From 18 to 64 years/18 years or over/From 25 to 54 years/From 25 to 59 years/55 years or over/60 years or over/65 years or over
- Country of birth group (C_BIRTH): EU27-countries except reporting country/Non EU27-countries nor reporting country/Foreign country/Reporting country

Reference period: Survey year for sex and country of birth group. Age is the age of the respondent at the end of the income reference period. Survey year also for variables related to the items in question, except for the variables on arrears that refer to the last 12 months.

SAS program: mddd16.sas (VAR_DEP_SEV_EXT_Reliability.sas, VAR_C_BIRTH_CIP_SHIP.sas)

4.4.1.15 Severe material deprivation rate by tenure status

eurostat

Dataset: Severe material deprivation rate by tenure status

Dissemination tree code: <u>ilc_mddd17</u> **Data source:** EU-SILC

Description: Persons as percentage of persons in the total population and in the relevant tenure status breakdown who are <u>severely materially deprived</u>.

Key indicator(s) included in the dataset:

- Severely materially deprived people (EU2020 indicator)
- Severe material deprivation rate (4+ items) (JAF indicator)
- Children living in a household suffering from severe material deprivation (4+) (JAF indicator)
- Severe Material deprivation of older people (65+) by sex (JAF indicator)

Policy relevance:

Alongside income-related measures of poverty, a broader perspective of social inclusion can be obtained by studying other measures, for example, those relating to material deprivation. An analysis of material deprivation provides a more absolute rather than a relative analysis, as used for income poverty.

Tenure status appears to be related to material deprivation. Tenants (at the market price) are considered the most vulnerable groups to experience income poverty combined with deprivation. In particular this risk is significant in two thirds of the EU countries. Tenants in general spent part of their income on their rent and therefore have fewer resources available than owners for other spending. When it comes to owners they experience lower risks of income poverty and/or material deprivation³⁶.

Statistical population: All persons living in private households. People with missing values for any of the nine deprivation items or tenure status are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used:

Severely Materially Deprived (SEV_DEP) are characterised those individuals being at the state of enforced inability to pay for <u>at least four</u> of the following nine material deprivation items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat, fish, or a protein equivalent every second day, 5) to enjoy a week of holiday away from home once a year, 6) to have a colour television, 7) to have a washing machine, 8) to have a car, 9) to have a telephone (see <u>Material deprivation (MD)</u>).

(Accommodation) tenure status is defined a) Owner, with mortgage or loan b) Owner, no outstanding mortgage or housing loan c) Tenant, rent at market price d) Tenant, rent at reduced price or free (<u>Tenure status (TENSTA_2</u>)).

The variables used are HH020/HH021 in combination with HY100G/HY100N for distinguishing between owners with and without mortgage.

Other concepts: <u>Material deprivation (MD)</u>

³⁶ Income and Living Conditions in Europe, 2010

Calculation method: Let N_ITEM be the total number of items that a person cannot afford to pay, with N_ITEM ranging from 4 to 9. Severe material deprivation rate broken down by tenure status ($SEV_DEPR_TOTL_{at_TENURE}$) is calculated as the percentage of people in each tenure status group (TENURE) who **cannot** afford to pay **at least four** of 'material deprivation items' (**N_ITEM>=4**) (see <u>Material deprivation (MD)</u>). The weight variable used is the Personal Cross-Sectional Weight (PB050a).

$$SEV_DEPR_TOTL_{at_TENURE} = \frac{\bigvee_{i_at_TENURE_where N_ITEM = j}}{\sum_{\forall_{i_at_TENURE}} RB050a_{i}} \cdot 100$$

, where *j* takes the values: 4, 5, 6, 7, 8, 9.

Methodological issues:

• The accommodation tenure status is assigned to each household member

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Tenure Status (TENURE): Total/Owner, with mortgage or loan/Owner, no outstanding mortgage or housing loan/Tenant, rent at market price/Tenant, rent at reduced price or free

Reference period: Survey year for tenure status. Survey year also for variables related to the items in question, except for the variables on arrears that refer to the last 12 months.

SAS program: mddd17.sas (VAR_DEP_SEV_EXT_Reliability.sas, VAR_TENSTA_2)

4.4.1.16 Severe material deprivation rate by NUTS region



Dataset: Severe material deprivation rate by NUTS region **Dissemination tree code:** <u>ilc_mddd21</u> **Data source:** EU-SILC

Description: Percentage of persons in the total population and in the relevant NUTS breakdowns who are <u>severely materially deprived</u>.

Key indicator(s) included in the dataset:

- Severely materially deprived people (EU2020 indicator)
- Severe material deprivation rate (4+ items) (JAF indicator)

Policy relevance: Regional disparity in terms of material deprivation, and consequently,

poverty and social exclusion is rather wide across EU countries. This might be related to the fact that countries (with few exceptions) provide only few universal benefits, which could mitigate inequalities of incomes. The forces, which lie behind social exclusion and inclusion, affect different people in different communities in a variety of ways according to the local context. Furthermore local traditions of mutual aid, self-help organisations and other community resources have been regarded as strong in some communities, and may compensate for exclusion from other networks.

Statistical population: All persons living in private households. People with missing values for any of the nine deprivation items or region are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used:

Severely Materially Deprived (SEV_DEP) are characterised those individuals being at the state of enforced inability to pay for <u>at least four</u> of the following nine material deprivation items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat, fish, or a protein equivalent every second day, 5) to enjoy a week of holiday away from home once a year, 6) to have a colour television, 7) to have a washing machine, 8) to have a car, 9) to have a telephone (see <u>Material deprivation (MD)</u>).

Other concepts: Material deprivation (MD), NUTS region

Calculation method: Let N_ITEM be the total number of items that a person cannot afford to pay, with N_ITEM ranging from 4 to 9. Severe material deprivation rate broken down by NUTS region ($SEV_DEPR_TOTL_{at_NUTS}$) is calculated as the percentage of people (or thousands of people) in each NUTS region group who **cannot** afford to pay **at least four** of 'material deprivation items' (**N_ITEM>=4**) (see <u>Material deprivation (MD)</u>). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$SEV_DEPR_TOTL_{at_NUTS} = \frac{\sum_{i=at_NUTS_where N_ITEM = j} RB050a_{i}}{\sum_{\forall i_at_NUTS} RB050a_{i}} \cdot 100$$

, where *j* takes the values: 4, 5, 6, 7, 8, 9.

Methodological issues:

- One should be careful in making cross-country comparisons, because the number of regions per countries varies a great deal.
- One issue in developing regional indicators concerns the choice of the type of units to serve as 'regions'. For a number of substantive and practical reasons, geographical-administrative regions, specifically NUTS regions at various level of classification, appear as the most appropriate choice for EU countries.
- NUTS units are not defined in exactly the same way in different countries and can differ greatly in size and homogeneity.
- From an analytical point of view, 2-digit level of NUTS is recommended. Note that

for 1 in 3 EU countries the 2-digit level corresponds to the country level.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): Countries (EU Member states, Iceland, Norway, Switzerland, Croatia) / NUTS1 (EU Member States - except for Germany, France, Netherlands, Austria, Portugal and the United Kingdom) / NUTS2 (EU Member States - except for Belgium, Germany, Greece, France, Hungary, Netherlands, Austria, Portugal and the United Kingdom – Norway, Switzerland)
- Time

Reference period: Survey year for NUTS region and all variables related to the items in question, except for the variables on arrears that refer to the last 12 months.

SAS program: mddd21.sas (VAR DEP SEV EXT Reliability.sas)

4.4.1.17 Severe material deprivation rate by degree of urbanisation

eurostat

Dataset: Severe material deprivation rate by degree of urbanisation **Dissemination tree code:** ilc mddd23

Data source: EU-SILC

Description: Percentage of persons in the total population and in the relevant degree of urbanisation breakdowns who are severely materially deprived.

Key indicator(s) included in the dataset:

- Severely materially deprived people (EU2020 indicator)
- Severe material deprivation rate (4+ items) (JAF indicator)

Policy relevance: While the highest absolute number of people at risk of poverty and social exclusion is found in densely populated (urban) areas of the EU, poverty and social exclusion in thinly populated (rural) areas is a widespread phenomenon throughout the EU. Rural factors affecting exclusion include the neglect of social exclusion in rural areas by both policy makers and the public; a lack of social housing; car dependency and inadequate public transport; small workplaces associated with low pay and restricted careers; lack of unionisation or collective action of excluded groups; and strong personal networks. The reduction of the number of poor and socially excluded people in rural areas of the EU is crucial for the attainment of the EU2020 headline target.

Statistical population: All persons living in private households. People with missing values for any of the nine deprivation items or degree of urbanisation are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Severely Materially Deprived (SEV_DEP) are characterised those individuals being at the state of enforced inability to pay for <u>at least four</u> of the following nine material deprivation items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat, fish, or a protein equivalent every second day, 5) to enjoy a week of holiday away from home once a year, 6) to have a colour television, 7) to have a washing machine, 8) to have a car, 9) to have a telephone (see <u>Material deprivation (MD)</u>).

Other concepts: Material deprivation (MD), Degree of urbanisation (DEG_URB)

Calculation method: Let N_ITEM be the total number of items that a person cannot afford to pay, with N_ITEM ranging from 4 to 9. Severe material deprivation rate broken down by degree of urbanisation $(SEV_DEPR_TOTL_{at_deg_urb})$ is calculated as the percentage of people in each group of degree of urbanisation (DEG_URB) who **cannot** afford to pay **at least four** of 'material deprivation items' (**N_ITEM>=4**) (see <u>Material deprivation (MD)</u>). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$SEV_DEPR_TOTL_{at_deg_urb} = \frac{\sum_{i_at \ deg_urb_where \ N_ITEM = j} RB050a_{i}}{\sum_{\forall i_at \ deg_urb} RB050a_{i}} \cdot 100$$

, where *j* takes the values: 4, 5, 6, 7, 8, 9.

Methodological issues:

- There is no single, universally preferred definition of rural areas, nor is there a single rural definition that can serve all policy purposes. EU-SILC survey uses a definition based on human density.
- Following the human density criterion is possible urban areas to be characterised as rural, especially in the case of densely populated areas that are part of regions dominated by mountains with small unincorporated communities.
- Narrowly defined definitions can direct attention to specific populations; they also have the potential consequence of eliminating from policy eligibility places that should be covered.
- The proposed 3-category breakdown, focusing on population density rather than on land use, has been retained by the Task Force because it is an acceptable compromise from a user point of view, because it doesn't necessitate additional burden on respondents or statistical offices and because this classification is currently already in use in several harmonised social surveys.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia)
- Time
- Degree of urbanisation (DEG_URB): Densely-populated area (at least 500 inhabitants/km²)/Intermediate urbanized area (between 100 and 499 inhabitants/km²)/Thinly-populated area (less than 100 inhabitants/km²)

Reference period: Survey year for degree of urbanisation and all variables related to the items in question, except for the variables on arrears that refer to the last 12 months.

SAS program: _mddd23.sas (VAR_DEP_SEV_EXT_Reliability.sas)

4.4.1.18 Severe material deprivation rate for children by highest education level of their parents (population aged 0 to 17 years)

eurostat

Dataset: Severe material deprivation rate for children by highest education level of their parents (population aged 0 to 17 years)

Dissemination tree code: <u>ilc_mddd60</u>

Data source: EU-SILC

Description: Children (as percentage of persons) in the total population aged 0 to 17 years and in the relevant parents' highest education level who are <u>severely materially deprived</u>.

Key indicator(s) included in the dataset: Children living in a household suffering from severe material deprivation (4+) (JAF indicator)

Policy relevance:

The promotion and protection of the rights of the child is one of the objectives of the EU 2020 Agenda. The Europe 2020 Strategy sets out a vision for the 21st century of a Europe where the children of today will have a better education, access to the services and to the resources they need to grow up^{37} .

Statistical population: Population aged 0 to 17 living in private households. People with missing values for any of the nine deprivation items, age or with missing education level for mother and father are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Severely Materially Deprived (SEV_DEP) are characterised those individuals being at the state of enforced inability to pay for <u>at least four</u> of the following nine material

³⁷ European Commission – "An EU Agenda for the Rights of the child" [COM(2011) 60]

deprivation items: 1) to pay their rent, mortgage or utility bills, 2) to keep their home adequately warm, 3) to face unexpected expenses, 4) to eat meat, fish, or a protein equivalent every second day, 5) to enjoy a week of holiday away from home once a year, 6) to have a colour television, 7) to have a washing machine, 8) to have a car, 9) to have a telephone (see <u>Material deprivation (MD)</u>).

Educational level (attainment) of a person is the highest level of an educational programme the person has successfully completed and the study field of this programme. The educational classification to be used is the International Standard Classification of Education (ISCED 1997) coded according to the seven ISCED-97 categories. The expression 'level successfully completed' is associated with obtaining a certificate or a diploma when there is a certification. In cases where there is no certification, successful completion must be associated with full attendance or acquired competences to access the upper level. Persons who have not completed their studies should be coded according to the highest level they have completed.

Other concepts: Material deprivation (MD), Age

Calculation method: Let N_ITEM be the total number of items that a person cannot afford to pay, with N_ITEM ranging from 4 to 9. Severe material deprivation rate broken down by the parents' highest educational level ($SEV_DEPR_TOTLagex_{at_HHISCED}$) is calculated as the percentage of people aged 0 to 17 years, in each group of parents' highest educational level who **cannot** afford to pay **at least four** of 'material deprivation items' (**N_ITEM>=4**) (see <u>Material deprivation (MD)</u>). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$SEV_DEPR_TOTLagex_{at_HHISCED} = \frac{\sum_{i=at \text{ HHISCED_where N_ITEM = j}} RB050a_i}{\sum_{\forall i=at \text{ HHISCED}} RB050a_i} \cdot 100$$

, where *j* takes the values: 4, 5, 6, 7, 8, 9 and *agex* takes the values: less than 6 years, less than 18 years, from 6 to 11 years, from 12 to 17 years.

Methodological issues:

- Highest educational level of children's parents refers to children living in a household with one or both parents and to the highest level of education attained by (at least one of) the parents. Data are classified according to the International Standard Classification of Education (ISCED): low education corresponds to ISCED levels 0-2 (pre-primary, primary and lower secondary education); medium education corresponds to ISCED levels 3 and 4 (upper secondary and post-secondary non-tertiary education) and high education corresponds to ISCED levels 5 and 6 (tertiary education).
- In face of the diversity of national education systems (with regard to curricula, compulsory schooling ages, equivalences between qualifications and other elements) one should be careful in making cross-country comparisons.
- Persons who have never been in education (and/or illiterate) are excluded from the calculation of the indicator.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Educational Level (ISCED97): Pre-primary, primary and lower secondary education (levels 0-2), Upper secondary and post-secondary non-tertiary education (levels 3 and 4)/First and second stage of tertiary education (levels 5 and 6)
- Age: less than 6 years/less than 18 years/from 6 to 11 years/from 12 to 17 years

Reference period: Survey year for Educational Level (ISCED97) and variables related to derivation items, except for the variables on arrears that refer to the last 12 months. Age is the age of the respondent at the end of the income reference period.

SAS program: _mddd23.sas (VAR_DEP_SEV_EXT_Reliability.sas)

4.4.2 Economic strain (ilc_mdes)

4.4.2.1 Inability to keep home adequately warm



Dataset: Inability to keep home adequately warm **Dissemination tree code:** <u>ilc_mdes01</u> **Data source:** EU-SILC

Description: Percentage of persons in the total population and in the relevant household type and income group breakdowns who are in the state of enforced inability to keep home adequately warm.

Key indicator(s) included in the dataset: -

Policy relevance: 'Keeping home adequately warm' is one of the nine deprivation items agreed by EU to measure economic strain, and consequently Material deprivation (MD). The selection of items to be included in a deprivation measure depends on the question(s) this measure is expected to address. In the context of the Social OMC, the purpose of EU deprivation indicators is to capture a situation of exclusion from a minimum acceptable way of life due to a lack of resources (EU Council of Ministers, 1985).

Statistical population: All persons living in private households. People with missing values for the variable related to 'Inability to keep home adequately warm' (EU-SILC - HH050), household type or equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used:

Materially Deprived for the 'Economic strain' dimension are characterised those individuals being at the state of economic strain, defined as the state of enforced inability to afford one or more of the following items:

- Keeping home adequately warm (HH050)
- Afford paying for one-week annual holiday away from home (HS040)
- Afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day (HS050)
- Face unexpected financial expenses (HS060)
- Being confronted with payment arrears (mortgage or rent, utility bills, hire purchase instalments or other loan payments) (variables HS010, HS011, HS020, HS021, HS030, HS031)

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Household types (HHTYP)

Calculation method: The inability to keep home adequately warm broken down by household type and income group $(HOME_WARM_{at_hhtyp/incgrp})$ is calculated as the percentage of people in each household type (HHTYP) and income group (INCGRP) who **cannot** afford to keep home adequately warm (HH050=2). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$HOME_WARM_{at_hhtyp/incgrp} = \frac{\sum_{i=at htyp/incgrp_where HH050=2} RB050a_{i}}{\sum_{\forall i=at hhtyp/incgrp} RB050a_{i}} \cdot 100$$

Methodological issues:

• This question is about affordability (ability to pay) to keep the home adequately warm, regardless of whether the household actually needs to keep it adequately warm.

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Household type (HHTYP): Total/Single person/One adult younger than 65 years/One adult older than 65 years/Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years/Two adults, at least one aged 65 years and over/Two adults with one dependent child/Two adults with two dependent children/Two adults with three or more dependent children/Three adults/Three or more or more adults with dependent children/Households without dependent children/Households with dependent children
- Income group (INCGRP): Below 60% of median equivalised income/Above 60% of median equivalised income/Total

Reference period: Survey year for household type and the variable in question. Income reference period for income variables with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mdes01.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.2.2 Inability to afford paying for one week annual holiday away from home



Dataset: Inability to afford paying for one week annual holiday away from home **Dissemination tree code:** <u>ilc_mdes02</u>

Data source: EU-SILC

Description: Percentage of persons in the total population and in the relevant household type and income group breakdowns who are in the state of enforced inability to afford paying for one week annual holiday away from home.

Key indicator(s) included in the dataset: -

Policy relevance: 'Afford paying for one week annual holiday away from home' is one of the nine deprivation items agreed by EU to measure economic strain, and consequently Material deprivation (MD). The selection of items to be included in a deprivation measure depends on the question(s) this measure is expected to address. In the context of the Social OMC, the purpose of EU deprivation indicators is to capture a situation of exclusion from a minimum acceptable way of life due to a lack of resources (EU Council of Ministers, 1985).

Statistical population: All persons living in private households. People with missing values for the variable related to 'Inability to afford paying for one week annual holiday away from home' (EU-SILC – HS040), household type or equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Materially Deprived for the 'Economic strain' dimension are characterised those individuals being at the state of economic strain, defined as the state of enforced inability to afford one or more of the following items:

- Keeping home adequately warm (HH050)
- Afford paying for one-week annual holiday away from home (HS040)
- Afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day (HS050)
- Face unexpected financial expenses (HS060)
- Being confronted with payment arrears (mortgage or rent, utility bills, hire purchase instalments or other loan payments) (variables HS010, HS011, HS020, HS021, HS030, HS031)

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Household types (HHTYP)

Calculation method: The inability to afford paying for one week annual holiday away from home broken down by household type and income group $(AFF_HOLIDAY_{at_hhtyp/incgrp})$ is calculated as the percentage of people in each household type (HHTYP) and income group (INCGRP) who **cannot** afford to pay for one week annual holiday away from home (HS040=2). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$AFF_HOLIDAY_{at_hhtyp/incgrp} = \frac{\sum_{i=at hhtyp/incgrp_where HS040=2} RB050a_{i}}{\sum_{i=at hhtyp/incgrp} RB050a_{i}} \cdot 100$$

Methodological issues:

- This question focuses mainly on affordability of some aspects of living standards. The wording of the question refers to the affordability and to the actual meaning "ability to pay" i.e. "the household has the resources to afford..." regardless if the household wants it.
- If at least one household member cannot afford to go for holidays the answer should be "No" (e.g. in cases where parents can afford to send children to a summer camp but cannot afford to go for a holiday for themselves, or where a grown-up son or daughter can afford a holiday but other household members cannot).
- Please note that in cases where in the household there are elderly members or members with health problems who have the resources to afford a week's annual holiday but for other reasons they cannot go or follow the other members of the household the answer should be "Yes".
- "Whole household" does not mean that the members of the household have to go all together and at the same time for holidays.
- If the household finances its holidays through borrowing (from bank, relatives or friends) it is considered in the same way as if the household manages to pay through own resources.

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Household type (HHTYP): Total/Single person/One adult younger than 65 years/One adult older than 65 years/Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years/Two adults, at least one aged 65 years and over/Two adults with one dependent child/Two adults with two dependent children/Two adults with three or more dependent children/Three or more adults/Three or more adults/Three or more adults with dependent children/Households without dependent children/Households with dependent children/
- Income group (INCGRP): Below 60% of median equivalised income/Above 60% of median equivalised income/Total

Reference period: Survey year for household type and the variable in question. Income reference period for income variables with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mdes02.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.2.3 Inability to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day



Dataset: Inability to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day

Dissemination tree code: <u>ilc_mdes03</u> **Data source:** EU-SILC

Description: Percentage of persons in the total population and in the relevant household type and income group breakdowns who are in the state of enforced inability to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day.

Key indicator(s) included in the dataset: -

Policy relevance: 'Afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day' is one of the nine deprivation items agreed by EU to measure economic strain, and consequently Material deprivation (MD). The selection of items to be included in a deprivation measure depends on the question(s) this measure is expected to address. In the context of the Social OMC, the purpose of EU deprivation indicators is to capture a situation of exclusion from a minimum acceptable way of life due to a lack of resources (EU Council of Ministers, 1985).

Statistical population: All persons living in private households. People with missing values for the variable related to 'Inability to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day' (EU-SILC - HS050), household type or equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Materially Deprived for the 'Economic strain' dimension are characterised those individuals being at the state of economic strain, defined as the state of enforced inability to afford one or more of the following items:

- Keeping home adequately warm (HH050)
- Afford paying for one-week annual holiday away from home (HS040)
- Afford a meal with meat, chicken, fish (or vegetarian equivalent) every second

day (HS050)

- Face unexpected financial expenses (HS060)
- Being confronted with payment arrears (mortgage or rent, utility bills, hire purchase instalments or other loan payments) (variables HS010, HS011, HS020, HS021, HS030, HS031)

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Household types (HHTYP)

Calculation method: The inability to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day broken down by household type and income group $(AFF_MEAL_{tat_hhtyp/incgrp})$ is calculated as the percentage of people in each household type (HHTYP) and income group (INCGRP) who **cannot** afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day (HS050=2). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$AFF_MEAL_{at_hhtyp/incgrp} = \frac{\sum_{i=at hhtyp/incgrp_where HS050e_{i}} RB050a_{i}}{\sum_{i=at hhtyp/incgrp} RB050a_{i}} \cdot 100$$

Methodological issues:

- This question assesses whether, according to the household respondent, the household can afford a meal with meat, chicken or fish (or equivalent vegetarian) every second day, regardless if the household wants it.
- If the household manages to pay through borrowing (from bank, relatives or friends) it is considered in the same way as if the household manages to pay through own resources.

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Household type (HHTYP): Total/Single person/One adult younger than 65 years/One adult older than 65 years/Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years/Two adults, at least one aged 65 years and over/Two adults with one dependent child/Two adults with two dependent children/Two adults with three or more dependent children/Three or more adults/Three or more adults with dependent children/Households without dependent children/Households with dependent children
- Income group (INCGRP): Below 60% of median equivalised income/Above 60% of median equivalised income/Total

Reference period: Survey year for household type and the variable in question. Income reference period for income variables with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mdes03.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.2.4 Inability to face unexpected financial expenses



Dataset: Inability to face unexpected financial expenses **Dissemination tree code:** <u>ilc_mdes04</u> **Data source:** EU-SILC

Description: Percentage of persons in the total population and in the relevant household type and income group breakdowns who are in the state of enforced inability to face unexpected financial expenses.

Key indicator(s) included in the dataset: -

Policy relevance: 'Face unexpected financial expenses' is one of the nine deprivation items agreed by EU to measure economic strain, and consequently Material deprivation (MD). The selection of items to be included in a deprivation measure depends on the question(s) this measure is expected to address. In the context of the Social OMC, the purpose of EU deprivation indicators is to capture a situation of exclusion from a minimum acceptable way of life due to a lack of resources (EU Council of Ministers, 1985).

Statistical population: All persons living in private households. People with missing values for the variable related to 'Inability to face unexpected financial expenses' (EU-SILC - HS060), household type or equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used:

Materially Deprived for the 'Economic strain' dimension are characterised those individuals being at the state of economic strain, defined as the state of enforced inability to afford one or more of the following items:

- Keeping home adequately warm (HH050)
- Afford paying for one-week annual holiday away from home (HS040)
- Afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day (HS050)
- Face unexpected financial expenses (HS060)
- Being confronted with payment arrears (mortgage or rent, utility bills, hire purchase instalments or other loan payments) (variables HS010, HS011, HS020, HS021, HS030, HS031)

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Household types (HHTYP)

Calculation method: The inability to face unexpected financial expenses broken down by household type and income group ($FACE_EXP_{at_hhtyp/incgrp}$) is calculated as the percentage of people in each household type (HHTYP) and income group (INCGRP) who **cannot**

afford to face unexpected financial expenses (HS060=2). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$FACE_EXP_{at_hhtyp/incgrp} = \frac{\sum_{i_at hhtyp/incgrp_where HS060=2} RB050a_{i}}{\sum_{\forall i_at hhtyp/incgrp} RB050a_{i}} \cdot 100$$

Methodological issues:

• A required expense could be different across countries but examples are surgery, funeral, major repair in the house, replacement of durables like washing machine, car.

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Household type (HHTYP): Total/Single person/One adult younger than 65 years/One adult older than 65 years/Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years/Two adults, at least one aged 65 years and over/Two adults with one dependent child/Two adults with two dependent children/Two adults with three or more dependent children/Three or more adults/Three or more adults with dependent children/Households without dependent children/Households with dependent children
- Income group (INCGRP): Below 60% of median equivalised income/Above 60% of median equivalised income/Total

Reference period: Survey year for household type and the variable in question. Income reference period for income variables with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mdes04.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.2.5 Arrears (mortgage or rent, utility bills or hire purchase) from 2003

eurostat

Dataset: Arrears (mortgage or rent, utility bills or hire purchase) from 2003 **Dissemination tree code:** <u>ilc_mdes05</u> **Data source:** EU-SILC

Description: Percentage of persons in the total population and in the relevant household type and income group breakdowns who are in the state of arrears (mortgage or rent, utility bills or hire purchase), expressing the enforced inability to pay their mortgage or rent, utility bills or hire purchase on time due to financial difficulties.

Key indicator(s) included in the dataset: -

Policy relevance: 'Arrears (mortgage or rent, utility bills or hire purchase)' is one of the nine deprivation items agreed by EU to measure economic strain, and consequently Material deprivation (MD). The selection of items to be included in a deprivation measure depends on the question(s) this measure is expected to address. In the context of the Social OMC, the purpose of EU deprivation indicators is to capture a situation of exclusion from a minimum acceptable way of life due to a lack of resources (EU Council of Ministers, 1985).

Statistical population: All persons living in private households. People with missing values for the any of the variables related to arrears (mortgage or rent, utility bills or hire purchase) (EU-SILC - HS010, HS011, HS020, HS021, HS030, HS031), household type or equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Materially Deprived for the 'Economic strain' dimension are characterised those individuals being at the state of economic strain, defined as the state of enforced inability to afford one or more of the following items:

- Keeping home adequately warm (HH050)
- Afford paying for one-week annual holiday away from home (HS040)
- Afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day (HS050)
- Face unexpected financial expenses (HS060)
- Being confronted with payment arrears (mortgage or rent, utility bills, hire purchase instalments or other loan payments) (variables HS010, HS011, HS020, HS021, HS030, HS031)

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Household types (HHTYP)

Calculation method: Arrears (mortgage or rent, utility bills or hire purchase) broken down by household type and income group ($ARREARS_{at_hhtyp/incgrp}$) is calculated as the percentage of people in each household type (HHTYP) and income group (INCGRP) who **are confronted with payment arrears** for mortgage or rent, utility bills or hire purchase (HS010=1 or HS020=1 or HS030=1). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).



Methodological issues:

• The TF on Material deprivation recommended, starting from the 2008 operation, to slightly change the questions on arrears by adding one more category in the possible answers (YES/NO) that will distinguish between households that were in arrears once (YES-once) or twice or more (YES – twice or more) in the last twelve months.
Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Household type (HHTYP): Total/Single person/One adult younger than 65 years/One adult older than 65 years/Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years/Two adults, at least one aged 65 years and over/Two adults with one dependent child/Two adults with two dependent children/Two adults with three or more dependent children/Three or more adults/Three or more adults with dependent children/Households without dependent children/Households with dependent children
- Income group (INCGRP): Below 60% of median equivalised income/Above 60% of median equivalised income/Total

Reference period: Survey year for household type. Income reference period for income variables with the exceptions of Ireland (moving income reference period) and the UK (survey year). The last 12 months for arrears.

SAS program: _mdes05.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.2.6 Arrears on mortgage or rent payments



Dataset: Arrears on mortgage or rent payments **Dissemination tree code:** <u>ilc_mdes06</u> **Data source:** EU-SILC

Description: Percentage of persons in the total population and in the relevant household type and income group breakdowns who are in the state of arrears on mortgage or rent payments, expressing the enforced inability to pay their mortgage or rent on time due to financial difficulties.

Key indicator(s) included in the dataset: -

Policy relevance: 'Arrears on mortgage or rent payments' is one of the nine deprivation items agreed by EU to measure economic strain, and consequently Material deprivation (MD). The selection of items to be included in a deprivation measure depends on the question(s) this measure is expected to address. In the context of the Social OMC, the purpose of EU deprivation indicators is to capture a situation of exclusion from a minimum acceptable way of life due to a lack of resources (EU Council of Ministers, 1985).

Statistical population: All persons living in private households. People with missing values for the variable related to arrears on mortgage or rent payments (EU-SILC - HS010), household type or equivalised disposable income are excluded. Persons living in collective

households and in institutions are generally excluded from the target population. **Unit of measurement:** Percentage of people in the total population

Main concepts used:

Materially Deprived for the 'Economic strain' dimension are characterised those individuals being at the state of economic strain, defined as the state of enforced inability to afford one or more of the following items:

- Keeping home adequately warm (HH050)
- Afford paying for one-week annual holiday away from home (HS040)
- Afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day (HS050)
- Face unexpected financial expenses (HS060)
- Being confronted with payment arrears (mortgage or rent, utility bills, hire purchase instalments or other loan payments) (variables HS010, HS011, HS020, HS021, HS030, HS031)

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Household types (HHTYP)

Calculation method: Arrears on mortgage or rent payments broken down by household type and income group ($ARREARS_RENT_{at_hhtyp/incgrp}$) is calculated as the percentage of people in each household type (HHTYP) and income group (INCGRP) who **are confronted with payment arrears** for mortgage or rent (HS010=1). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARREARS_RENT_{at_hhtyp/incgrp} = \frac{\sum_{i=at hhtyp/incgrp_where HS010=1}^{NB050a_{i}} \cdot 100$$

Methodological issues:

• The TF on Material deprivation recommended, starting from the 2008 operation, to slightly change the questions on arrears by adding one more category in the possible answers (YES/NO) that will distinguish between households that were in arrears once (YES-once) or twice or more (YES – twice or more) in the last twelve months.

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Household type (HHTYP): Total/Single person/One adult younger than 65 years/One adult older than 65 years/Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years/Two adults, at least one aged 65 years and over/Two adults with one dependent child/Two adults with two dependent children/Two adults with three or more dependent children/Three or more adults/Three or more adults/Three or more adults with dependent children/Households with dependent child

• Income group (INCGRP): Below 60% of median equivalised income/Above 60% of median equivalised income/Total

Reference period: Survey year for household type. Income reference period for income variables with the exceptions of Ireland (moving income reference period) and the UK (survey year). The last 12 months for arrears.

SAS program: _mdes06.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.2.7 Arrears on utility bills



Dataset: Arrears on utility bills **Dissemination tree code:** <u>ilc_mdes07</u> **Data source:** EU-SILC

Description: Percentage of persons in the total population and in the relevant household type and income group breakdowns who are in the state of arrears on utility bills, expressing the enforced inability to pay their utility bills on time due to financial difficulties.

Key indicator(s) included in the dataset: -

Policy relevance: 'Arrears on utility bills' is one of the nine deprivation items agreed by EU to measure economic strain, and consequently Material deprivation (MD). The selection of items to be included in a deprivation measure depends on the question(s) this measure is expected to address. In the context of the Social OMC, the purpose of EU deprivation indicators is to capture a situation of exclusion from a minimum acceptable way of life due to a lack of resources (EU Council of Ministers, 1985).

Statistical population: All persons living in private households. People with missing values for variable related to arrears on utility bills (EU-SILC - HS020), household type or equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Materially Deprived for the 'Economic strain' dimension are characterised those individuals being at the state of economic strain, defined as the state of enforced inability to afford one or more of the following items:

- Keeping home adequately warm (HH050)
- Afford paying for one-week annual holiday away from home (HS040)
- Afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day (HS050)
- Face unexpected financial expenses (HS060)
- Being confronted with payment arrears (mortgage or rent, utility bills, hire purchase instalments or other loan payments) (variables HS010, HS011, HS020, HS021, HS030, HS031)

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Household types (HHTYP)

Calculation method: Arrears on utility bills broken down by household type and income group ($ARREARS_BILLS_{at_hhtyp/incgrp}$) is calculated as the percentage of people in each household type (HHTYP) and income group (INCGRP) who **are confronted with payment arrears** for utility bills (HS020=1). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARREARS_BILLS_{at_hhtyp/incgrp} = \frac{\sum_{i_at hhtyp/incgrp_where HS020=1}}{\sum_{i_at hhtyp/incgrp}} \cdot 100$$

Methodological issues:

• The TF on Material deprivation recommended, starting from the 2008 operation, to slightly change the questions on arrears by adding one more category in the possible answers (YES/NO) that will distinguish between households that were in arrears once (YES-once) or twice or more (YES – twice or more) in the last twelve months.

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Household type (HHTYP): Total/Single person/One adult younger than 65 years/One adult older than 65 years/Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years/Two adults, at least one aged 65 years and over/Two adults with one dependent child/Two adults with two dependent children/Two adults with three or more dependent children/Three or more adults/Three or more adults with dependent children/Households with dependent children/Households with dependent children
- Income group (INCGRP): Below 60% of median equivalised income/Above 60% of median equivalised income/Total

Reference period: Survey year for household type. Income reference period for income variables with the exceptions of Ireland (moving income reference period) and the UK (survey year). The last 12 months for arrears.

SAS program: _mdes07.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.2.8 Arrears on hire purchase instalments or other loan payments



Dataset: Arrears on hire purchase instalments or other loan payments **Dissemination tree code:** <u>ilc_mdes08</u> **Data source:** EU-SILC

Description: Percentage of persons in the total population and in the relevant household type and income group breakdowns who are in the state of arrears on hire purchase instalments or other loan payments, expressing the enforced inability to pay for hire purchase instalments or other loan payments on time due to financial difficulties.

Key indicator(s) included in the dataset: -

Policy relevance: 'Arrears on hire purchase instalments or other loan payments' is one of the nine deprivation items agreed by EU to measure economic strain, and consequently Material deprivation (MD). The selection of items to be included in a deprivation measure depends on the question(s) this measure is expected to address. In the context of the Social OMC, the purpose of EU deprivation indicators is to capture a situation of exclusion from a minimum acceptable way of life due to a lack of resources (EU Council of Ministers, 1985).

Statistical population: All persons living in private households. People with missing values for the variable related to arrears on hire purchase instalments or other loan payments (EU-SILC - HS030), household type or equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Materially Deprived for the 'Economic strain' dimension are characterised those individuals being at the state of economic strain, defined as the state of enforced inability to afford one or more of the following items:

- Keeping home adequately warm (HH050)
- Afford paying for one-week annual holiday away from home (HS040)
- Afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day (HS050)
- Face unexpected financial expenses (HS060)
- Being confronted with payment arrears (mortgage or rent, utility bills, hire purchase instalments or other loan payments) (variables HS010 HS011, HS020, HS021, HS030, HS031)

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Household types (HHTYP)

Calculation method: Arrears on hire purchase instalments or other loan payments broken down by household type and income group ($ARREARS_INSTAL_{at_hhtyp/incgrp}$) is calculated as

the percentage of people in each household type (HHTYP) and income group (INCGRP) who **are confronted with payment arrears** for hire purchase instalments or other loan payments (HS030=1). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ARREARS_INSTAL_{\text{at_hhtyp/incgrp}} = \frac{\sum_{i=at \text{ hhtyp/incgrp_where HS030=1}}^{NB050a_{i}} \cdot 100$$

Methodological issues:

• The TF on Material deprivation recommended, starting from the 2008 operation, to slightly change the questions on arrears by adding one more category in the possible answers (YES/NO) that will distinguish between households that were in arrears once (YES-once) or twice or more (YES – twice or more) in the last twelve months.

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Household type (HHTYP): Total/Single person/One adult younger than 65 years/One adult older than 65 years/Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years/Two adults, at least one aged 65 years and over/Two adults with one dependent child/Two adults with two dependent children/Two adults with three or more dependent children/Three or more adults/Three or more adults with dependent children/Households with dependent children/Households with dependent children
- Income group (INCGRP): Below 60% of median equivalised income/Above 60% of median equivalised income/Total

Reference period: Survey year for household type. Income reference period for income variables with the exceptions of Ireland (moving income reference period) and the UK (survey year). The last 12 months for arrears.

SAS program: _mdes08.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.2.9 Inability to make ends meet

eurostat

Dataset: Inability to make ends meet Dissemination tree code: <u>ilc_mdes09</u> Data source: EU-SILC

Description: Percentage of persons in the total population and in the relevant household type and income group breakdowns who are in the state of enforced inability to make ends meet, based on the following groups of the subjective non-monetary indicator

(SUBJNMON) defining the ability to make ends meet:

- Households making ends meet with great difficulty (EM_GD)
- Households making ends meet with difficulty (EM_D)
- Households making ends meet with some difficulty (EM_SD)
- Households making ends meet fairly easily (EM_FE)
- Households making ends meet easily (EM_E)
- Households making ends meet very easily (EM_VE)

Key indicator(s) included in the dataset: -

Policy relevance: Subjective poverty ("great difficulties" or "difficulties" with making ends meet), which is often used as a measure of financial stress, is closely related to material deprivation. It provides a relative measurement of poverty assessing the household's feeling of poverty.

Statistical population: All persons living in private households. People with missing values for the variable related to 'Inability to make ends meet' (EU-SILC – HS120), household type or equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

The ability to make ends meet (HS120) aims to assess the respondent's feeling about the level of difficulty experienced by the household in making ends meet. This assessment is based on the household's total income.

As making ends meet does not exist in some languages, it is to be defined as *paying usual necessary expenses*.

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Household types (HHTYP)

Calculation method: Let SUBJNMON be the subjective non-monetary indicator that describes the ability to make ends meet and is defined as the set of values from 1 to 6 according to the level of difficulty to make ends meet (see *Description* above). The inability to make ends meet broken down by household type and income group $(ENDS_MEETxx_{at_hhtyp/incgrp})$ is calculated as the percentage of people in each household type (HHTYP) and income group (INCGRP) who **cannot** afford to make ends meet for all levels of SUBJNMON. The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$ENDS_MEETxx_{at_hhtyp/incgrp} = \frac{\sum_{i \text{ where SUBJNMON}=EM_xx at_hhtyp/incgrp}}{\sum_{\forall i \text{ where SUBJNMON}=EM_xx at_hhtyp/incgrp}} \cdot 100$$

, where xx takes the values GD (great difficulty), D (difficulty), SD (some difficulty), FE (fairly easily), E (easily) and VE (very easily).

Methodological issues:

- The objective is to assess the respondent feeling about the level of difficulty experienced by the household in making ends meet.
- The usual necessary expenses of the household include housing related costs but exclude business and farm work costs.
- Member States are requested to use the same scale proposed in the given order in order to guarantee the maximum comparability.

Breakdowns: The dataset provides the percentages for the whole population and also broken down by

- Geographical Entity (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Croatia, Turkey)
- Time
- Household type (HHTYP): Total/Single person/One adult younger than 65 years/One adult older than 65 years/Single person with dependent children/Single female/Single male/Two adults/Two adults younger than 65 years/Two adults, at least one aged 65 years and over/Two adults with one dependent child/Two adults with two dependent children/Two adults with three or more dependent children/Three or more adults/Three or more adults with dependent children/Households without dependent children/Households with dependent children
- Income group (INCGRP): Below 60% of median equivalised income/Above 60% of median equivalised income/Total

Reference period: Survey year for household type and the variable in question. Income reference period for income variables with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mdes09.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.3 Economic strain linked to dwelling (ilc_mded)

4.4.3.1 Share of housing costs in disposable household income, by type of household and income group



Dataset: Share of housing costs in disposable household income, by type of household and income group

Dissemination tree code: <u>ilc_mded01</u>

Data source: EU-SILC

Description: Weighted mean of the distribution of the share of housing costs (HH070) in disposable household income (HY020) in the respective household type and income group breakdowns.

Key indicator(s) included in the dataset: --

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. Access to good quality and affordable accommodation is a fundamental need and right. Ensuring that this need is met is still a significant challenge in a number of States. However, housing-related expenditure often accounts for a high share of household disposable income which could prevent some people from fulfilling this need.

Statistical population: All persons living in private households. Households and individuals therein with missing values for housing costs, equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage

Main concepts used:

Total housing cost (HH070) refers to monthly costs connected with the households right to live in the accommodation. The costs of utilities (water, electricity, gas and heating) resulting from the actual use of the accommodation are also included.

Disposable income means gross income less income tax, regular taxes on wealth, employees', self-employed and unemployed (if applicable) compulsory social insurance contributions, employers' social insurance contributions and inter- household transfers paid.

Housing allowances: The Housing Function refers to interventions by public authorities to help households meet the cost of housing. An essential criterion for defining the scope of a Housing allowance is the existence of a qualifying means-test for the benefit. It includes rent benefit and benefit to owner-occupier, while it excludes social housing policy organized through the fiscal system (i.e. tax benefits) and all capital transfers (in particular investment grants).

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC), Household types (HHTYP)

Calculation method: Weighted average share of housing costs in disposable household income in the respective household type and income group ($MEAN_HSCOSTS_{at_HHTYP/INCGRP}$) is calculated as the weighted average of the ratio of total housing cost (HH070) over the disposable household income (HY020) in each household type (HHTYP) and income group (INCGRP). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$MEAN_HSCOSTS_{at_HHTYP/INCGRP} = \frac{\sum_{\forall i_at_HHTYP/INCGRP} RB050a_i \cdot \frac{HH070_i \cdot 12}{HY020_i} \cdot 100}{\sum_{\forall i_at_HHTYP/INCGRP} RB050a_i}$$

Methodological issues:

• The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".

- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.
- Components that have to be included in housing costs:
 - a) OWNERS: Mortgage interest payments (net of any tax relief), gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance, mandatory services and charges (sewage removal, refuse removal, etc.), regular maintenance and repairs2, taxes, and the cost of utilities (water, electricity, gas and heating).
 - b) TENANTS (at market price): Rent payments, gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance (if paid by the tenants), services and charges (sewage removal, refuse removal, etc.) (if paid by the tenants), taxes on dwelling (if applicable), regular maintenance and repairs and the cost of utilities (water, electricity, gas and heating).
 - c) TENANTS (at reduce price): Rent payments, gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance (if paid by the tenants), services and charges (sewage removal, refuse removal, etc.) (if paid by the tenants), taxes on dwelling (if applicable), regular maintenance and repairs1 and the cost of utilities (water, electricity, gas and heating).
 - d) RENT FREE: gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance (if paid by the rent free tenant), services and charges (sewage removal, refuse removal, etc.) (if paid by the rent free tenant), taxes on dwelling (if applicable), regular maintenance and repairs1 and the cost of utilities (water, electricity, gas and heating).

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household type (HHTYP): Total/ Single person/ One adult younger than 65/ One adult older than 65/ Single person with dependent children/ Single female/ Single male/ Two adults/ Two adults younger than 65 years/ Two adults at least one aged 65 years and over/ Two adults with one dependent child/ Two adults with two dependent children/ Two adults with three or more dependent children/ Three or more adults/ Three or more adults with dependent children/ Households without dependent children/ Households with dependent children
- Income Group (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mded01.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.3.2 Share of rent related to occupied dwelling in disposable household income, by type of household and income group



Dataset: Share of rent related to occupied dwelling in disposable household income, by type of household and income group

Dissemination tree code: <u>ilc_mded02</u>

Data source: EU-SILC

Description: Weighted mean of the distribution of the share of the rent related to occupied dwelling (HH060) in disposable household income (HY020) in the respective household type and income group breakdowns.

Key indicator(s) included in the dataset: --

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. Access to good quality and affordable accommodation is a fundamental need and right. Ensuring that this need is met is still a significant challenge in a number of States. However, housing-related expenditure often accounts for a high share of household disposable income which could prevent some people from fulfilling this need.

Statistical population: All persons living in private households. Households and individuals therein with missing values for current rent (HH060), equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage

Main concepts used:

Current rent related to occupied dwelling (HH060) refers to the **total monthly** current rent paid on the main residence of the household. The rent refers to the monthly amount paid for the use of an unfurnished dwelling. Rentals also include payments for the use of a garage to provide parking in connection with the dwelling.

Disposable income means gross income less income tax, regular taxes on wealth, employees', self-employed and unemployed (if applicable) compulsory social insurance contributions, employers' social insurance contributions and inter- household transfers paid.

Housing allowances: The Housing Function refers to interventions by public authorities to help households meet the cost of housing. An essential criterion for defining the scope of a Housing allowance is the existence of a qualifying means-test for the benefit. It includes rent benefit and benefit to owner-occupier, while it excludes social housing policy organized through the fiscal system (i.e. tax benefits) and all capital transfers (in particular investment grants).

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC), Household types (HHTYP)

Calculation method: Weighted average share of the rent related to occupied dwelling in disposable household income in the respective household type and income group ($MEAN_RENT_{at_HHTYP/INCGRP}$)is calculated as the weighted average of the ratio of current rent related to occupied dwelling (HH060) over the disposable household income (HY020) in each household type (HHTYP) and income group (INCGRP). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$MEAN_RENT_{at_HHTYP/INCGRP} = \frac{\sum_{\forall i_at_HHTYP/INCGRP} RB050a_i \cdot \frac{HH060_i \cdot 12}{HY020_i} \cdot 100}{\sum_{\forall i_at_HHTYP/INCGRP} RB050a_i}$$

Methodological issues:

- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.
- Other payments, which are made at the same time as the rent (such as for electricity, heating etc.), should be excluded. Also the regular repairs and maintenance and other services related to the dwelling should be excluded.
- Only rent related to the principal residence is taken into account

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household type (HHTYP): Total/ Single person/ One adult younger than 65/ One

adult older than 65/ Single person with dependent children/ Single female/ Single male/ Two adults/ Two adults younger than 65 years/ Two adults at least one aged 65 years and over/ Two adults with one dependent child/ Two adults with two dependent children/ Two adults with three or more dependent children/ Three or more adults/ Three or more adults with dependent children/ Households without dependent children/ Households with dependent children

• Income Group (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mded02.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.3.3 Total housing costs in pps



Dataset: Total housing costs in pps **Dissemination tree code:** <u>ilc_mded03</u> **Data source:** EU-SILC

Description: Weighted mean of the distribution of the total housing costs (HH070) in the respective household type, tenure status and income group breakdowns. The indicator is expressed in Purchasing Power Standard (PPS).

Key indicator(s) included in the dataset: --

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. Access to good quality and affordable accommodation is a fundamental need and right. Ensuring that this need is met is still a significant challenge in a number of States. However, housing-related expenditure often accounts for a high share of household disposable income, which could prevent some people from fulfilling this need. The translation of total housing costs in Power Purchase Standard (PPS) facilitates international comparison.

Statistical population: All persons living in private households. Households and individuals therein with missing values for housing costs, equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Purchasing Power Standard (PPS)

Main concepts used:

Total housing cost (HH070) refers to monthly costs connected with the households right to live in the accommodation. The costs of utilities (water, electricity, gas and heating)

resulting from the actual use of the accommodation are also included.

Disposable income means gross income less income tax, regular taxes on wealth, employees', self-employed and unemployed (if applicable) compulsory social insurance contributions, employers' social insurance contributions and inter- household transfers paid.

Housing allowances: The Housing Function refers to interventions by public authorities to help households meet the cost of housing. An essential criterion for defining the scope of a Housing allowance is the existence of a qualifying means-test for the benefit. It includes rent benefit and benefit to owner-occupier, while it excludes social housing policy organized through the fiscal system (i.e. tax benefits) and all capital transfers (in particular investment grants).

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC), Household types (HHTYP), Tenure status (TENSTA_2)

Calculation method: Weighted average total housing cost in pps in the respective household type, tenure status and income group ($MEAN_HSCOSTS_PPS_{at_HHTYP/TENURE/INCGRP}$) is calculated as the weighted average of the ratio of total housing cost (HH070) over the Purchasing Power Parity (PPP) rate. The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$MEAN_HSCOSTS_PPS_{at_HHTYP/TENUREINCGRP} = \frac{\sum_{\forall i_at_HHTYP/TENURE/INCGRP} RB050a_i \times \frac{HH070_i}{PPP}}{\sum_{\forall i_at_HHTYP/TENURE/INCGRP} RB050a_i}$$

Methodological issues:

- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.
- Components that have to be included in housing costs:
 - a) OWNERS: Mortgage interest payments (net of any tax relief), gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance, mandatory services and charges (sewage removal, refuse removal, etc.), regular maintenance and repairs2, taxes, and the cost of utilities (water, electricity, gas and heating).
 - b) TENANTS (at market price): Rent payments, gross of housing benefits (i.e.

housing benefits should not be deducted from the total housing cost), structural insurance (if paid by the tenants), services and charges (sewage removal, refuse removal, etc.) (if paid by the tenants), taxes on dwelling (if applicable), regular maintenance and repairs and the cost of utilities (water, electricity, gas and heating).

- c) TENANTS (at reduce price): Rent payments, gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance (if paid by the tenants), services and charges (sewage removal, refuse removal, etc.) (if paid by the tenants), taxes on dwelling (if applicable), regular maintenance and repairs1 and the cost of utilities (water, electricity, gas and heating).
- d) RENT FREE: gross of housing benefits (i.e. housing benefits should not be deducted from the total housing cost), structural insurance (if paid by the rent free tenant), services and charges (sewage removal, refuse removal, etc.) (if paid by the rent free tenant), taxes on dwelling (if applicable), regular maintenance and repairs1 and the cost of utilities (water, electricity, gas and heating).

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time

eurostat

- Tenure Status (TENURE): Total/owner/tenant
- Household type (HHTYP): Total/ Single person/ One adult younger than 65/ One adult older than 65/ Single person with dependent children/ Single female/ Single male/ Two adults/ Two adults younger than 65 years/ Two adults at least one aged 65 years and over/ Two adults with one dependent child/ Two adults with two dependent children/ Two adults with three or more dependent children/ Three or more adults/ Three or more adults with dependent children/ Households without dependent children/ Households with dependent children
- Income Group (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Survey year for tenure status. Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mded03.sas (VAR_HT1.sas, VAR_ARPTXX.sas, VAR_TENSTA.sas)

4.4.3.4 Financial burden of the total housing cost

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Dataset: Financial burden of the total housing cost **Dissemination tree code:** <u>ilc_mded04</u> Data source: EU-SILC

Description: Percentage of persons in the total population living in a dwelling where housing costs, including mortgage repayment (instalment and interest) or rent, insurance and service charges (sewage removal, refuse removal, regular maintenance, repairs and other charges), consist a financial burden (HS140) in the relevent household type and income group breakdowns, based on the following levels of financial burden (AFFORD):

- Households with heavy financial burden due to the housing costs (HVY)
- Households with financial burden due to the housing costs (BUR)
- Households without financial burden due to the housing costs. (NOT)

Key indicator(s) included in the dataset: --

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. Access to good quality and affordable accommodation is a fundamental need and right. Ensuring that this need is met is still a significant challenge in a number of States. However, housing-related expenditure often accounts for a high share of household disposable income which could prevent some people from fulfilling this need.

Statistical population: All persons living in private households. Households and individuals therein with missing values for financial burden (HS140), equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of people in the total population

Main concepts used:

Financial burden of the total housing cost (HS140) refers to the extent to which housing costs are a financial burden to the household.

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC), Household types (HHTYP)

Calculation method: Let AFFORD be the variable that describes the financial burden due to housing costs. Financial burden of the total housing cost broken down by household type and income group ($FIN_BURxxx_{at_HHTYP/INCGRP}$) is calculated as the percentage of people in each household type (HHTYP) and income group (INCGRP) living in households with financial burden due to housing costs as outlined in the levels of AFFORD. The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$FIN_BURxxx_{at_HHTYP/INCGRP} = \frac{\sum_{i_where AFFORD=xxx_at_HHTYP/INCGRP}}{\sum_{i_at_HHTYP/INCGRP}} \cdot 100$$

, where xxx takes the values HVY (heavy financial burden), BUR (financial burden) and NOT (not a financial burden).

Methodological issues:

- The objective is to assess the respondent feeling about the extent to which housing costs are a financial burden to the household.
- Total mortgage repayment including instalment and interest is to be taken into account for owners and actual rent for renters. In addition, service charges (sewage removal, refuse removal, regular maintenance, repairs and other charges) are to be considered.
- Only really paid housing costs have to be taken into account, i.e. the variable should cover what the household should actually pay and should not take into account the accumulation of arrears over past periods.
- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household type (HHTYP): Total/ Single person/ One adult younger than 65/ One adult older than 65/ Single person with dependent children/ Single female/ Single male/ Two adults/ Two adults younger than 65 years/ Two adults at least one aged 65 years and over/ Two adults with one dependent child/ Two adults with two dependent children/ Two adults with three or more dependent children/ Three or more adults/ Three or more adults with dependent children/ Households without dependent children/ Households with dependent children
- Income Group (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Survey year for financial burden of the total housing cost. Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mded04.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.3.5 Financial burden of the repayment of debts from hire purchases or loan



Dataset: Financial burden of the repayment of debts from hire purchases or loan **Dissemination tree code:** <u>ilc_mded05</u>

Data source: EU-SILC

Description: Percentage of persons in the total population living in a dwelling where repayment of debts from any credit card, hire purchase or other loans (that is, excluding mortgage repayments or other loans connected with purchase of main dwelling) consist a financial burden (HS150) in the relevent household type and income group breakdowns, based on the following levels of financial burden (AFFORD):

- Households with heavy financial burden due to the housing costs (HVY)
- Households with financial burden due to the housing costs (BUR)
- Households without financial burden due to the housing costs. (NOT)

Key indicator(s) included in the dataset: --

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. Access to good quality and affordable accommodation is a fundamental need and right. Ensuring that this need is met is still a significant challenge in a number of States. However, housing-related expenditure often accounts for a high share of household disposable income which could prevent some people from fulfilling this need.

Statistical population: All persons living in private households. Households and individuals therein with missing values for financial burden (HS150), equivalised disposable income or household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of people in the total population

Main concepts used:

Financial burden of the repayment of debts from hire purchase or loans (HS150) refers to the extent to which the repayment of non-housing related debts are a financial burden to the household.

Other concepts: Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC), Household types (HHTYP)

Calculation method: Let AFFORD be the variable that describes financial burden due to housing costs. Financial burden of the repayment of debts from hire purchases or loan broken down by household type and income group ($FIN_BURxxx_{at_HHTYP/INCGRP}$) is calculated as the percentage of people in each household type (HHTYP) and income group (INCGRP) living in households with financial burden due to housing costs as outlined in the levels of AFFORD. The weight variable used is the Adjusted Cross Sectional Weight



SAS program: _mded05.sas (VAR_HT1.sas, VAR_ARPTXX.sas)

4.4.4 Durables (ilc_mddu)

4.4.4.1 Enforced lack of a telephone



Dataset: Enforced lack of a telephone **Dissemination tree code:** <u>ilc_mddu01</u> Data source: EU-SILC

Description: The percentage of persons in the total population lacking a telephone in the relevent household type and income group because they cannot afford it.

Key indicator(s) included in the dataset: --

Policy relevance: Whereas the at-risk-of-poverty rate measures income to identify lack of resources, the material deprivation rate focuses on the ability of households or individuals to afford certain items (e.g. a telephone). High savings, access to credit or other sources might offset the effect of low income. By focusing on expenses, the material deprivation rate could take these factors into account. Moreover, by measuring deprivation using an item (a telephone in this indicator) common to all States, the material deprivation is more sensitive to differences in living standards across countries than the poverty risk rate with its nationally defined poverty threshold.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income and household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population **Unit of measurement:** Percentage of people in the total population

Main concepts used:

No telephone (including mobile phone) (HS070) refers to whether the household does not have a telephone because it cannot afford it (enforced lack) or for other reasons.

Enforced lack implies that the item is something that the household would like to have, but cannot afford.

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC), Household types (HHTYP)

Calculation method: Enforced lack of a telephone rate broken down by household type and income group $(LACK_PHONE_{at_HHTYP/INCGRP})$ is calculated as the percentage of people in each household type group and income group who cannot afford a phone (HS070 =2) over the total population in that breakdown (i.e. household type group and income group). The



SAS program: _mddu01.sas

4.4.4.2 Enforced lack of a colour TV



Dataset: Enforced lack of a colour TV **Dissemination tree code:** <u>ilc_mddu02</u> **Data source**: EU-SILC

Description: The percentage of persons in the total population lacking a colour TV in the relevent household type and income group because they cannot afford it.

Key indicator(s) included in the dataset: --

Policy relevance: Whereas the at-risk-of-poverty rate measures income to identify a lack of resources, the material deprivation rate focuses on the ability of households or individuals to afford certain items (e.g. a colour TV). High savings, access to credit or other sources might offset the effect of low income. By focusing on expenses, the material deprivation rate could take these factors into account. Moreover, by measuring deprivation using an item (a colour TV in this indicator) common to all States, the material deprivation is more sensitive to differences in living standards across countries than the poverty risk rate with its nationally defined poverty threshold.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income and household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population **Unit of measurement:** Percentage of people in the total population

Main concepts used:

No colour TV (HS080) refers to whether the household does not have a colour TV because it cannot afford it (enforced lack) or for other reasons.

Enforced lack implies that the item is something that the household would like to have, but cannot afford.

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC), Household types (HHTYP)

Calculation method: Enforced lack of a colour TV rate broken down by household type and income group $(LACK_CL_TV_{at_HHTYP/INCGRP})$ is calculated as the percentage of people in each household type group and income group who cannot afford a colour TV (HS080 =2) over the total population in that breakdown (i.e. household type group and income group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).



4.4.4.3 Enforced lack of a computer



Dataset: Enforced lack of a computer **Dissemination tree code:** <u>ilc_mddu03</u> **Data source:** EU-SILC

Description: The percentage of persons in the total population lacking a computer in the relevent household type and income group because they cannot afford it.

Key indicator(s) included in the dataset: --

Policy relevance: Whereas the at-risk-of-poverty rate measures income to identify a lack of resources, the material deprivation rate focuses on the ability of households or individuals to afford certain items (e.g. a computer). High savings, access to credit or other sources might offset the effect of low income. By focusing on expenses, the material deprivation rate could take these factors into account. Moreover, by measuring deprivation using an item (a computer in this indicator) common to all States, the material deprivation is more sensitive to differences in living standards across countries than the poverty risk rate with its nationally defined poverty threshold.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income and household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population **Unit of measurement:** Percentage of people in the total population

Main concepts used:

No computer (HS090) refers to whether the household does not have a computer because it cannot afford it (enforced lack) or for other reasons.

Enforced lack implies that the item is something that the household would like to have, but cannot afford.

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC), Household types (HHTYP)

Calculation method: Enforced lack of a computer rate broken down by household type and income group $(LACK_COMPUTER_{ut_HHTYP/INCGRP})$ is calculated as the percentage of people in each household type group and income group who cannot afford a computer (HS090 =2) over the total population in that breakdown (i.e. household type group and income group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

 $\sum RB050a_i$ $LACK_COMPUTER_{at_HHTYP/INCGRP} = \frac{\forall i \text{ where } HS090=2 \text{ at_HHTYP/INCGRP}}{\sum} RB050a.$ ∀i_at_HHTYP/INCGRP

Methodological issues:

- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.
- Possession of the item does not necessarily imply ownership: the item may be rented, leased or provided on loan.
- In the case of a computer, the household is considered to possess it if any member possesses it.
- A computer includes a portable computer or a desktop computer, but does not include machines dedicated to video games but without any broader functionality.
- If a computer is provided ONLY for work purpose, this does not count as possessing the item.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household type (HHTYP): Total/ Single person/ One adult younger than 65/ One adult older than 65/ Single person with dependent children/ Single female/ Single male/ Two adults/ Two adults younger than 65 years/ Two adults at least one aged 65 years and over/ Two adults with one dependent child/ Two adults with two dependent children/ Two adults with three or more dependent children/ Three or more adults/ Three or more adults with dependent children/ Households with dependent children/ Households with dependent children
- Income Group (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Information about having at telephone refers to survey year. Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mddu03.sas

4.4.4.4 Enforced lack of a washing machine

eurostat

Dataset: Enforced lack of a washing machine **Dissemination tree code:** <u>ilc_mddu04</u> **Data source**: EU-SILC

Description: The percentage of persons in the total population lacking a washing machine in the relevent household type and income group because they cannot afford it.

Key indicator(s) included in the dataset: --

Policy relevance: Whereas the at-risk-of-poverty rate measures income to identify a lack of resources, the material deprivation rate focuses on the ability of households or individuals to afford certain items (e.g. a washing machine). High savings, access to credit or other sources might offset the effect of low income. By focusing on expenses, the material deprivation rate could take these factors into account. Moreover, by measuring deprivation using an item (a washing machine in this indicator) common to all States, the material deprivation is more sensitive to differences in living standards across countries than the poverty risk rate with its nationally defined poverty threshold.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income and household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population **Unit of measurement:** Percentage of people in the total population

Main concepts used:

No washing machine (HS100) refers to whether the household does not have a washing machine because it cannot afford it (enforced lack) or for other reasons.

Enforced lack implies that the item is something that the household would like to have, but cannot afford.

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC), Household types (HHTYP)

Calculation method: Enforced lack of a washing machine rate broken down by household type and income group (*LACK_WASHING_MACHINE_{at_HHTYP/INCGRP*) is calculated as the percentage of people in each household type group and income group who cannot afford a washing machine (HS100 =2) over the total population in that breakdown (i.e. household type group and income group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).}

 \sum RB050a; LACK_WASHING_MACHINE_{at_HHTYP/INCGRP} = $\frac{\forall i \text{ where } HS100=2_at_HHTYP/INCGRP}{\sum_{RD0000}} \cdot 100$ $\sum RB050a_i$ ∀i at HHTYP/INCGRF

Methodological issues:

- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.
- Possession of the item does not necessarily imply ownership: the item may be rented, leased or provided on loan.
- In the case of a washing machine, the household is considered to possess it if any member possesses it.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household type (HHTYP): Total/ Single person/ One adult younger than 65/ One adult older than 65/ Single person with dependent children/ Single female/ Single male/ Two adults/ Two adults younger than 65 years/ Two adults at least one aged 65 years and over/ Two adults with one dependent child/ Two adults with two dependent children/ Two adults with three or more dependent children/ Three or more adults/ Three or more adults with dependent children/ Households without dependent children/ Households with dependent children
- Income Group (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Information about having a washing machine refers to survey year. Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mddu04.sas

4.4.4.5 Enforced lack of a personal car



Dataset: Enforced lack of a personal car **Dissemination tree code:** <u>ilc_mddu05</u> **Data source:** EU-SILC

Description: The percentage of persons in the total population lacking a personal car in the relevent household type and income group because they cannot afford it.

Key indicator(s) included in the dataset: --

Policy relevance: Whereas the at-risk-of-poverty rate measures income to identify a lack of resources, the material deprivation rate focuses on the ability of households or individuals to afford certain items (e.g. a car). High savings, access to credit or other sources might offset the effect of low income. By focusing on expenses, the material deprivation rate could take these factors into account. Moreover, by measuring deprivation using an item (a car in this indicator) common to all States, the material deprivation is more sensitive to differences in living standards across countries than the poverty risk rate with its nationally defined poverty threshold.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income and household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population **Unit of measurement:** Percentage of people in the total population

Main concepts used:

No car (HS110) refers to whether the household does not have a car because it cannot afford it (enforced lack) or for other reasons.

Enforced lack implies that the item is something that the household would like to have, but cannot afford.

Other concepts: Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC), Household types (HHTYP)

Calculation method: Enforced lack of car rate broken down by household type and income group $(LACK_CAR_{at_HHTYP/INCGRP})$ is calculated as the percentage of people in each household type group and income group who cannot afford a car (HS110 =2) over the total population in that breakdown (i.e. household type group and income group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).



Methodological issues:

- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent

belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.

- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.
- Possession of the item does not necessarily imply ownership: the item may be rented, leased or provided on loan.
- In the case of a car, the household is considered to possess it if any member possesses it.
- A company car or van, which is available to the household for private use, counts as possessing the item. A car or van provided ONLY for professional purpose, should not be considered as possessing the item.
- Motorcycles are excluded.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household type (HHTYP): Total/ Single person/ One adult younger than 65/ One adult older than 65/ Single person with dependent children/ Single female/ Single male/ Two adults/ Two adults younger than 65 years/ Two adults at least one aged 65 years and over/ Two adults with one dependent child/ Two adults with two dependent children/ Two adults with three or more dependent children/ Three or more adults/ Three or more adults with dependent children/ Households with out dependent children/ Households with dependent children
- Income Group (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Information about having a car refers to survey year. Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mddu05.sas

4.4.5 Housing deprivation (ilc_mdho)

4.4.5.1 Severe housing deprivation rate by age, sex and poverty status



Dataset: Severe housing deprivation rate by age, sex and poverty status **Dissemination tree code:** <u>ilc_mdho06a</u> **Data source**: EU-SILC

Description: The percentage of persons in the total population living in an overcrowded dwelling deprived by at least one housing deprivation item in the relevent age, sex and poverty status group. The housing deprivation items considered are:

- Leaking roof, damp walls/floors/foundation, or rot in window frames or floor (HH040)
- No bath or shower in the dwelling (HH080, HH081) and no indoor flushing toilet for the sole use of the household (HH090, HH091)
- Dwelling too dark (HS160)

Key indicator(s) included in the dataset: --

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. Access to good quality and affordable accommodation is a fundamental need and right. Ensuring that this need is met is still a significant challenge in a number of Member States.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population **Unit of measurement:** Percentage of people in the total population

Main concepts used:

Severe housing deprivation (SEV_HH_DEP) refers to people living in an overcrowded dwelling deprived by at least one housing deprivation item. The housing deprivation items considered are:

- Leaking roof, damp walls/floors/foundation, or rot in window frames or floor (HH040)
- No bath or shower in the dwelling (HH080, HH081) and no indoor flushing toilet for the sole use of the household (HH090, HH091)
- Dwelling too dark (HS160)

Overcrowded household/dwelling (Overcrowding**):** A person is considered as living in an overcrowded household if the household does not have at its disposal a minimum number of rooms equal to:

- one room for the household;
- one room per couple in the household;

- one room for each single person aged 18 or more;
- one room per pair of single people of the same sex between 12 and 17 years of age;
- one room for each single person between 12 and 17 years of age and not included in the previous category;
- one room per pair of children under 12 years of age

Other concepts: Age, Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC),

Calculation method: The severe housing deprivation rate broken down by poverty status, age and sex ($SEVERE_HH_DEP_{at_age/sex/INCGRP}$) is calculated as the percentage of people living in an overcrowded dwelling deprived by at least one housing deprivation item (SEV_H_DEP) in each age, sex and sex poverty status group over the total population in that breakdown (i.e. age, sex and poverty status group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$SEVERE_HH_DEP_{at_age/sex/INCGRP} = \frac{\sum_{i_SEV_H_DEP_at_age/sex/INCGRP} RB050a_{i}}{\sum_{\forall i_at_age/sex/INCGRP} RB050a_{i}} \cdot 100$$

Methodological issues: --

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/ Less than 6 years/ From 6 to 11 years/ From 12 to 17 years/ Less than 18 years/ From 18 to 64 years/ 65 years or over
- Income Group (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Survey year for sex and housing deprivation items. Overcrowding is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mdho06.sas

4.4.5.2 Severe housing deprivation rate by household type



Dataset: Severe housing deprivation rate by household type **Dissemination tree code:** <u>ilc_mdho06b</u> **Data source:** EU-SILC

Description: The percentage of persons in the total population living in an overcrowded dwelling deprived by at least one housing deprivation item in the relevant household type group.

The housing deprivation items considered are:

- Leaking roof, damp walls/floors/foundation, or rot in window frames or floor (HH040)
- No bath or shower in the dwelling (HH080, HH081) and no indoor flushing toilet for the sole use of the household (HH090, HH091)
- Dwelling too dark (HS160)

Key indicator(s) included in the dataset: --

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. Access to good quality and affordable accommodation is a fundamental need and right. Ensuring that this need is met is still a significant challenge in a number of Member States.

Statistical population: All persons living in private households. People with missing values for household type are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of people in the total population

Main concepts used:

Severe housing deprivation (SEV_HH_DEP) refers to people living in an overcrowded dwelling deprived by at least one housing deprivation item. The housing deprivation items considered are:

- Leaking roof, damp walls/floors/foundation, or rot in window frames or floor (HH040)
- No bath or shower in the dwelling (HH080, HH081) and no indoor flushing toilet for the sole use of the household (HH090, HH091)
- Dwelling too dark (HS160)

Overcrowded household/dwelling (Overcrowding): A person is considered as living in an overcrowded household if the household does not have at its disposal a minimum number of rooms equal to:

- one room for the household;
- one room per couple in the household;

- one room for each single person aged 18 or more;
- one room per pair of single people of the same sex between 12 and 17 years of age;
- one room for each single person between 12 and 17 years of age and not included in the previous category;
- one room per pair of children under 12 years of age

Other concepts: Age, Household types (HHTYP)

Calculation method: The severe housing deprivation rate broken down by household type $(SEVERE_HH_DEP_{at_HHTYP})$ is calculated as the percentage of people living in an overcrowded dwelling deprived by at least one housing deprivation item (SEV_H_DEP) in each household type group over the total population in that breakdown (i.e. household type group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$SEVERE_HH_DEP_{at_HHTYP} = \frac{\sum_{i=1}^{N} RB050a_{i}}{\sum_{i=1}^{N} RB050a_{i}} \cdot 100$$

Methodological issues:

- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)
- Time
- Household type (HHTYP): Single person/ One adult younger than 65 years/ One adult older than 65 years/ Single person with dependent children/ Single female/ Single male/ Two adults/ Two adults younger than 65 years/ Two adults, at least one aged 65 years and over/ Two adults with one dependent child/ Two adults with two dependent children/ Two adults with three or more dependent children/ Two or more adults with out dependent children/ Two or more adults with dependent children/ Three or more adults with dependent children/ Households with dependent children/ Households with dependent children/

Reference period: Survey year for housing deprivation items Household type and overcrowding are derived based on the Age variable. Age is the age of the respondent at the

end of income reference period.

SAS program: mdho06.sas

4.4.5.3 Severe housing deprivation rate by tenure status

eurostat

Dataset: Severe housing deprivation rate by tenure status **Dissemination tree code:** <u>ilc_mdho06c</u> Data source: EU-SILC

Description: The percentage of persons in the total population living in an overcrowded dwelling deprived by at least one housing deprivation item in the relevant tenure status group.

The housing deprivation items considered are:

- Leaking roof, damp walls/floors/foundation, or rot in window frames or floor (HH040)
- No bath or shower in the dwelling (HH080, HH081) and no indoor flushing toilet for the sole use of the household (HH090, HH091)
- Dwelling too dark (HS160)

Key indicator(s) included in the dataset: --

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. Access to good quality and affordable accommodation is a fundamental need and right. Ensuring that this need is met is still a significant challenge in a number of Member States.

Statistical population: All persons living in private households. People with missing values for tenure status are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of people in the total population

Main concepts used:

Severe housing deprivation (SEV_HH_DEP) refers to people living in an overcrowded dwelling deprived by at least one housing deprivation item. The housing deprivation items considered are:

- Leaking roof, damp walls/floors/foundation, or rot in window frames or floor (HH040)
- No bath or shower in the dwelling (HH080, HH081) and no indoor flushing toilet for the sole use of the household (HH090, HH091)
- Dwelling too dark (HS160)

Overcrowded household/dwelling (Overcrowding): A person is considered as living in an

overcrowded household if the household does not have at its disposal a minimum number of rooms equal to:

- one room for the household;
- one room per couple in the household;
- one room for each single person aged 18 or more;
- one room per pair of single people of the same sex between 12 and 17 years of age;
- one room for each single person between 12 and 17 years of age and not included in the previous category;
- one room per pair of children under 12 years of age

(Accommodation) tenure status is defined a) Owner, with mortgage or loan b) Owner, no outstanding mortgage or housing loan c) Tenant, rent at market price d) Tenant, rent at reduced price or free (TENSTA_2).

The variables used are HH020/HH021 in combination with HY100G/HY100N for distinguishing between owners with and without mortgage.

Other concepts: Age

Calculation method: The severe housing deprivation rate broken down by tenure status $(SEVERE_HH_DEP_{at_TENURE})$ is calculated as the percentage of people living in an overcrowded dwelling deprived by at least one housing deprivation item (SEV_H_DEP) in each tenure status group over the total population in that breakdown (i.e. tenure status group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$SEVERE_HH_DEP_{at_HHTYP} = \frac{\sum_{i_SEV_H_DEP_at_TENURE}}{\sum_{\forall i_at_TENURE}} \cdot 100$$

Methodological issues:

• The accommodation tenure status is assigned to each household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)
- Time
- Tenure status (TENURE): Owner, with mortgage or loan/ Owner, no outstanding mortgage or housing loan/ Tenant, rent at market price/ Tenant, rent at reduced price or free

Reference period: Survey year for tenure status and housing deprivation items. Overcrowding is derived based on the Age variable. Age is the age of the respondent at the end of income reference period.

SAS program: mdho06.sas

4.4.5.4 Severe housing deprivation rate by degree of urbanisation



Dataset: Severe housing deprivation rate by degree of urbanisation **Dissemination tree code:** <u>ilc_mdho06d</u> **Data source:** EU-SILC

Description: The percentage of persons in the total population living in an overcrowded dwelling deprived by at least one housing deprivation item in the relevent degree of urbanisation group. The housing deprivation items considered are:

- Leaking roof, damp walls/floors/foundation, or rot in window frames or floor (HH040)
- No bath or shower in the dwelling (HH080, HH081) and no indoor flushing toilet for the sole use of the household (HH090, HH091)
- Dwelling too dark (HS160)

Key indicator(s) included in the dataset: --

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. Access to good quality and affordable accommodation is a fundamental need and right. Ensuring that this need is met is still a significant challenge in a number of Member States.

Statistical population: All persons living in private households. People with missing values for degree of urbanisation. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of people in the total population

Main concepts used:

Severe housing deprivation (SEV_HH_DEP) refers to people living in an overcrowded dwelling deprived by at least one housing deprivation item. The housing deprivation items considered are:

- Leaking roof, damp walls/floors/foundation, or rot in window frames or floor (HH040)
- No bath or shower in the dwelling (HH080, HH081) and no indoor flushing toilet for the sole use of the household (HH090, HH091)
- Dwelling too dark (HS160)

Overcrowded household/dwelling (Overcrowding**):** A person is considered as living in an overcrowded household if the household does not have at its disposal a minimum number of rooms equal to:

- one room for the household;
- one room per couple in the household;
- one room for each single person aged 18 or more;
- one room per pair of single people of the same sex between 12 and 17 years of
age;

- one room for each single person between 12 and 17 years of age and not included in the previous category;
- one room per pair of children under 12 years of age

Other concepts: Age, Degree of urbanisation (DEG_URB)

Calculation method: The severe housing deprivation rate broken down by degree of urbanisation ($SEVERE_HH_DEP_{at_DEGURB}$) is calculated as the percentage of people living in an overcrowded dwelling deprived by at least one housing deprivation item in each degree of urbanisation group over the total population in that breakdown (i.e. degree of urbanisation group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a)

$$SEVERE_HH_DEP_{at_DEGURB} = \frac{\sum_{i_SEV_H_DEP_at_DEGURB} RB050a_{i}}{\sum_{\forall i_at_DEGURB} RB050a_{i}} \cdot 100$$

Methodological issues:

- There is no single, universally preferred definition of rural areas, nor is there a single rural definition that can serve all policy purposes. EU-SILC survey uses a definition based on human density.
- Following the human density criterion is possible urban areas to be characterised as rural, especially in the case of densely populated areas that are part of regions dominated by mountains with small unincorporated communities.
- Narrowly defined definitions can direct attention to specific populations; they also have the potential consequence of eliminating from policy eligibility places that should be covered.
- The proposed 3-category breakdown, focusing on population density rather than on land use, has been retained by the Task Force because it is an acceptable compromise from a user point of view, because it doesn't necessitate additional burden on respondents or statistical offices and because this classification is currently already in use in several harmonised social surveys.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland)
- Time
- Degree of urbanisation (DEG_URB): densely-populated area (at least 500 inhabitants/km²/intermediate urbanized area (between 100 and 499 inhabitants/km²/thinly-populated area (less than 100 inhabitants/km²)

Reference period: Survey year for degree of urbanisation and housing deprivation items. Overcrowding is derived based on the Age variable. Age is the age of the respondent at the end of income reference period.

SAS program: mdho06.sas

4.4.5.5 Severe housing deprivation rate by income quintile

eurostat

Dataset: Severe housing deprivation rate by income quintile **Dissemination tree code:** <u>ilc_mdho06q</u> **Data source**: EU-SILC

Description: The percentage of persons in the total population living in an overcrowded dwelling deprived by at least one housing deprivation item in the relevant income quintile group. The housing deprivation items considered are:

- Leaking roof, damp walls/floors/foundation, or rot in window frames or floor (HH040)
- No bath or shower in the dwelling (HH080, HH081) and no indoor flushing toilet for the sole use of the household (HH090, HH091)
- Dwelling too dark (HS160)

Key indicator(s) included in the dataset: --

Policy relevance:

Insufficient spacing and poor amenities are those characteristics used to define severe housing deprivation. Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. Access to good quality and affordable accommodation is a fundamental need and right. Ensuring that this need is met is still a significant challenge in a number of Member States.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income are excluded. Persons living in collective households and in institutions are generally excluded from the target population **Unit of measurement:** Percentage of people in the total population

Main concepts used:

<u>Severe housing deprivation (SEV_HH_DEP)</u> refers to people living in an overcrowded dwelling deprived by at least one housing deprivation item. The housing deprivation items considered are:

- Leaking roof, damp walls/floors/foundation, or rot in window frames or floor (HH040)
- No bath or shower in the dwelling (HH080, HH081) and no indoor flushing toilet for the sole use of the household (HH090, HH091)
- Dwelling too dark (HS160)

Overcrowded household/dwelling (Overcrowding): A person is considered as living in an overcrowded household if the household does not have at its disposal a minimum number of rooms equal to:

• one room for the household;

- one room per couple in the household;
- one room for each single person aged 18 or more;
- one room per pair of single people of the same gender between 12 and 17 years of age;
- one room for each single person between 12 and 17 years of age and not included in the previous category;
- one room per pair of children under 12 years of age

Other concepts: <u>Income quintile</u> (QUINTILE)

Calculation method: The severe housing deprivation rate broken down by income quintile ($SEVERE_HH_DEP_{at_quantile}$) is calculated as the percentage of people living in an overcrowded dwelling deprived by at least one housing deprivation item (SEV_H_DEP) in each income quintile group over the total population in that breakdown (i.e. income quintile group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$SEVERE_HH_DEP_{at_quantile} = \frac{\sum_{i_SEV_H_DEP_at_quantile}}{\sum_{\forall i_at_quantile}} \cdot 100$$

Methodological issues: --

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland)
- Time
- Quantile (QUANTILE): Total/First quintile/Second quintile/Third quintile/Fourth quintile/Fifth quintile

Reference period: Survey year for housing deprivation items. Overcrowding is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: mdho06q.sas

4.4.5.6 Share of total population living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames or floor



Dataset: Share of total population living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames or floor

Dissemination tree code: <u>ilc_mdho01</u> Data source: EU-SILC

Description: The percentage of persons in the total population living in a dwelling either a leaking roof, or damp walls/floors/foundation, or rot in window frames or floor (HH040) in the relevent age, sex, household type and income group.

Key indicator(s) included in the dataset: Housing deprivation - leaking roof, damp walls, floors or foundation, or rot in window frames or floor (OMC)

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. Access to good quality and affordable accommodation is a fundamental need and right. Ensuring that this need is met is still a significant challenge in a number of States. The aim of the question on household problems with a leaking roof and/or damp ceilings, dampness in the walls, floors or foundation and/or rot in window frames and doors is to get an objective measure of the condition of the dwelling.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income, household type, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of people in the total population

Main concepts used: --

Other concepts: Age, Household types (HHTYP), Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC)

Calculation method: The share of total population living in a dwelling with a leaking roof or damp walls/floors/ foundation or rot in window frames or floor broken down by age, sex, household type and income group ($LEAKING_ROOF_{at_age/sex/HHTYP/INCGRP}$) is calculated as the percentage of people living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames or floor (HH040 = 1) in each age, sex, household type and income group over the total population in that breakdown (i.e. age, sex, household type and income group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).



Methodological issues:

- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent

belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.

• The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/ Less than 18 years/ From 18 to 64 years/ 65 years or over
- Household type (HHTYP): Total/Single person/ One adult younger than 65 years/ One adult older than 65 years/ Single person with dependent children/ Single female/ Single male/ Two adults/ Two adults younger than 65 years/ Two adults, at least one aged 65 years and over/ Two adults with one dependent child/ Two adults with two dependent children/ Two adults with three or more dependent children/ Three or more adults/ Three or more adults with dependent children/ Households with dependent children/ Households with dependent children

Income Group (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Survey year for sex and housing conditions. Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mdho01.sas

4.4.5.7 Share of children (aged 0 to 17) living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames of floor



Dataset: Share of children (aged 0 to 17) living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames or floor **Dissemination tree code:** <u>ilc_mdho01c</u> Data source: EU-SILC

Description: Children (as percentage of persons) in the total population aged 0 to 17 years living in a dwelling either a leaking roof, or damp walls/floors/foundation, or rot in window frames or floor (HH040) in the relevant age, and income group breakdowns.

Key indicator(s) included in the dataset: Housing deprivation - leaking roof, damp walls, floors or foundation, or rot in window frames or floor (OMC)

Policy relevance:

The promotion and protection of the rights of the child is one of the objectives of the EU 2020 Agenda. The Europe 2020 Strategy sets out a vision for the 21st century of a Europe where the children of today will have a better education, access to the services and to the resources they need to grow up³⁸.

Statistical population: All persons (aged 0 to 17) living in private households. People with missing values for equivalised disposable income, or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population **Unit of measurement:** Percentage of people in the total population

Main concepts used: --

Other concepts: <u>Age</u>, <u>Median Equivalised disposable income after social transfers</u> (MEDIAN20), Equivalised disposable Income (EQ_INC)

Calculation method: The share of the population, aged from 0 to 17 years, living in a dwelling with a leaking roof or damp walls/floors/ foundation or rot in window frames or floor broken down by age and income group (*LEAKING_ROOFagex_{at_INCGRP}*) is calculated as the percentage of people, aged from 0 to 17 years, living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames or floor (*HH040 = 1*) in each age, and income group over the total population in that breakdown (i.e. age, and income group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$LEAKING_ROOFagex_{at_INCGRP} = \frac{\sum_{i \text{ where } HH040= 1_at_INCGRP}}{\sum_{\forall i \text{ where } HH040= 1_at_INCGRP}} \cdot 100$$

, where agex takes the values: less than 6 years, less than 18 years, from 6 to 11 years, from 12 to 17 years.

Methodological issues:

- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

• Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU

³⁸ European Commission – "An EU Agenda for the Rights of the child" [COM(2011) 60]

- Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Age: Total/ Less than 6 years/ From 6 to 11 years/ From 12 to 17 years/Less than 18 years
- Income Group (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mdho01c.sas

4.4.5.8 Share of total population having neither a bath, nor a shower in their dwelling



Dataset: Share of total population having neither a bath, nor a shower in their dwelling **Dissemination tree code:** <u>ilc_mdho02</u>

Data source: EU-SILC

Description: The percentage of persons in the total population living in a dwelling having neither a bath, nor a shower in their dwelling (HH080) or not having bath or shower in the dwelling for the sole use of their household (HH081) in the relevant age, sex, household type and income group.

Key indicator(s) included in the dataset: Housing deprivation - lack of bath or shower (OMC)

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. Access to good quality and affordable accommodation is a fundamental need and right. Ensuring that this need is met is still a significant challenge in a number of States.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income, household type, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of people in the total population

Main concepts used: --

Other concepts: Age, Household types (HHTYP), Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC), Lack of bath or shower (LACK_BS)

Calculation method: The share of total population living in a dwelling without bath or shower broken down (*HH080* =2) or not having bath or shower for the sole use of their household (*HH080* = -5 AND (*HH081* =2 OR *HH081*=3) by age, sex, household type and income group (*LACK_BATH_SHOWER*_{at_age/sex/HHTYP/INCGRP}) is calculated as the percentage of people living in a dwelling either without bath or shower or not having indoor flushing toilet for the sole use of their household in each age, sex, household type and income group over the total population in that breakdown (i.e. age, sex, household type and income group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

	$\sum RB050a_i$
LACK_BATH_SHOWER _{at_age/sex/HHTYP/INCGRP} =	$\frac{\forall i \textit{ where } \textit{HH080=2 } \textit{OR } (\textit{HH080=5 } \textit{AND } (\textit{HH081=2 } \textit{OR } \textit{HH081=3}))_at_age/sex/\textit{HHTYP/INCGRP} \cdot 10(\\ \sum_{\forall i_at_age/sex/\textit{HHTYP/INCGRP}} \textit{RB050a}_i$

Methodological issues:

- The TF on Material deprivation recommended starting from the 2008 operation, instead of using this variable HH080, to use the following variable HH081 with 3 answering categories.
- A shower unit or bathtub outside the dwelling is not to be considered in this item. On the other hand, it is not required that the shower unit or the bath occupy a separate room.
- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/ Less than 18 years/ From 18 to 64 years/ 65 years or over
- Household type (HHTYP): Total/Single person/ One adult younger than 65 years/ One adult older than 65 years/ Single person with dependent children/ Single female/ Single male/ Two adults/ Two adults younger than 65 years/ Two adults, at least one aged 65 years and over/ Two adults with one dependent child/ Two adults with two dependent children/ Two adults with three or more dependent children/ Three or more adults/ Three or more adults with dependent children/ Households with dependent children/ Households with dependent children
- Income Group (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Survey year for sex and housing conditions. Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mdho02.sas

4.4.5.9 Share of children (aged 0 to 17) having neither a bath, nor a shower in their dwelling



Dataset: Share of children (aged 0 to 17) having neither a bath, nor a shower in their dwelling

Dissemination tree code: <u>ilc_mdho02c</u> **Data source**: EU-SILC

Description: Children (as percentage of persons) in the total population aged 0 to 17 years living in a dwelling having neither a bath, nor a shower in their dwelling (HH081) or not having bath or shower in the dwelling for the sole use of their household (HH081) in the relevant age, and income group.

Key indicator(s) included in the dataset: Housing deprivation - lack of bath or shower (OMC)

Policy relevance:

The promotion and protection of the rights of the child is one of the objectives of the EU 2020 Agenda. The Europe 2020 Strategy sets out a vision for the 21st century of a Europe where the children of today will have a better education, access to the services and to the resources they need to grow up^{39} .

Statistical population: All persons (aged 0 to 17 years) living in private households. People with missing values for equivalised disposable income, or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of people in the total population

Main concepts used: --

Other concepts: <u>Age</u>, <u>Median Equivalised disposable income after social transfers</u> (MEDIAN20), <u>Equivalised disposable Income (EQ_INC)</u>, <u>Lack of bath or shower</u> (LACK BS)

Calculation method: The share of the population, aged from 0 to 17 years, living in a dwelling without bath or shower broken down (HH080 = 2) or not having bath or shower for the sole use of their household (HH080 = -5 AND (HH081 = 2 OR HH081 = 3)) by age and

³⁹ European Commission – "An EU Agenda for the Rights of the child" [COM(2011) 60]

income group (*LACK_BATH_SHOWERagex*_{at_INCGRP}) is calculated as the percentage of people living in a dwelling either without bath or shower or not having indoor flushing toilet for the sole use of their household in each age and income group over the total population in that breakdown (i.e. age and income group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

 $LACK_BATH_SHOWERagex_{at_INCGRP} = \frac{\forall i where HH080= 2 OR (HH080=-5 AND (HH081=2 OR HH081=3))_at_INCGRP}{\sum_{\forall i_at_INCGRP} RB050a_{i}} \cdot 100$

, where *agex* takes the values: less than 6 years, less than 18 years, from 6 to 11 years, from 12 to 17 years.

Methodological issues:

- The TF on Material deprivation recommended starting from the 2008 operation, instead of using this variable HH080, to use the following variable HH081 with 3 answering categories.
- A shower unit or bathtub outside the dwelling are not to be considered in this item. On the other hand, it is not required that the shower unit or the bath occupy a separate room.
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Age: Total/ Less than 6 years/ From 6 to 11 years/ From 12 to 17 years/ Less than 18 years
- Income Situation in relation to the at risk of poverty threshold (INCGRP): Total

Reference period: Survey year for housing conditions. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mdho02c.sas

4.4.5.10 Share of total population not having indoor flushing tolet for the sole use of their household



Dataset: Share of total population not having indoor flushing toilet for the sole use of their household

Dissemination tree code: <u>ilc_mdho03</u> **Data source**: EU-SILC

Description: The percentage of persons in the total population living in a dwelling without indoor flushing toilet for the sole use of their household (HH090, HH091) in the relevent age, sex, household type and income group.

Key indicator(s) included in the dataset: Housing deprivation - lack of indoor flushing toilet for the sole use of their household (OMC)

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. Access to good quality and affordable accommodation is a fundamental need and right. Ensuring that this need is met is still a significant challenge in a number of States.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income, household type, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of people in the total population

Main concepts used: --

Other concepts: Age, Household types (HHTYP), Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC), Lack of toilet (LACK_TOILET)

Calculation method: The share of total population living in a dwelling without indoor flushing toilet for the sole use of their household (*HH090=2 OR (HH090=-5 AND (HH091=2 OR HH091=3)*) broken down by age, sex, household type and income group (*LACK_TOILET_{at_age/sex/HHTYP/INCGRP*}) is calculated as the percentage of people living in a dwelling without indoor flushing toilet for the sole use of their household in each age, sex, household type and income group over the total population in that breakdown (i.e. age, sex, household type and income group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

	$\sum RB050a_i$
LACK_TOILET _{at_age/sex/HHTYP/INCGRP} =	$= \frac{\forall i \text{ where } HH090=2 OR (HH090=-5 AND (HH091=2 OR HH091=3))_at_age/sex/HHTYP/INCGRP}}{\sum_{\forall i_at_age/sex/HHTYP/INCGRP} RB050a_{i}} \cdot 100$

Methodological issues:

- The TF on Material deprivation recommended starting from the 2008 operation, instead of using this variable HH090, to use the following variable HH091 with 3 answering categories.
- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information

about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.

• The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/ Less than 18 years/ From 18 to 64 years/ 65 years or over
- Household type (HHTYP): Total/Single person/ One adult younger than 65 years/ One adult older than 65 years/ Single person with dependent children/ Single female/ Single male/ Two adults/ Two adults younger than 65 years/ Two adults, at least one aged 65 years and over/ Two adults with one dependent child/ Two adults with two dependent children/ Two adults with three or more dependent children/ Three or more adults/ Three or more adults with dependent children/ Households with dependent children/ Households with dependent children
- Income Group (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Survey year for sex and housing conditions. Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mdho03.sas

4.4.5.11 Share of children (aged 0 to 17) not having indoor flushing toilet for the sole use of their household



Dataset: Share of children (aged 0 to 17) not having indoor flushing toilet for the sole use of their household

Dissemination tree code: <u>ilc_mdho03c</u> **Data source**: EU-SILC

Description: Children (as percentage of persons) in the total population aged 0 to 17 years living in a dwelling without indoor flushing toilet for the sole use of their household (HH090, HH091) in the relevant age, and income group.

Key indicator(s) included in the dataset: Housing deprivation - lack of indoor flushing toilet for the sole use of their household (OMC)

Policy relevance:

The promotion and protection of the rights of the child is one of the objectives of the EU 2020 Agenda. The Europe 2020 Strategy sets out a vision for the 21st century of a Europe where the children of today will have a better education, access to the services and to the resources they need to grow up⁴⁰.

Statistical population: All persons aged 0 to 17 years living in private households. People with missing values for equivalised disposable income or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of people in the total population

Main concepts used: --

Other concepts: Age, Median Equivalised disposable income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC), Lack of toilet (LACK_TOILET)

Calculation method: The share of the population, aged 0 to 17 years, living in a dwelling without indoor flushing toilet for the sole use of their household ($(HH090=2 \ OR \ HH090=-5) \ AND \ (HH091=2 \ OR \ HH091=3)$) broken down by age, gender, household type and income group ($LACK_TOILETagex_{at_age/INCGRP}$) is calculated as the percentage of people,

aged 0 to 17 years, living in a dwelling without indoor flushing toilet for the sole use of their household in each age and income group over the total population in that breakdown (i.e. age and income group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$LACK_TOILETagex_{at_INCGRP} = \frac{\forall_{i \text{ where } HH090=2 OR (HH090=-5 AND (HH091=2 OR HH091=3))_at_INCGRP}}{\sum_{\forall i \text{ at } INCGRP} RB050a_{i}} \cdot 100$$

, where *agex* takes the values: less than 6 years, less than 18 years, from 6 to 11 years, from 12 to 17 years.

Methodological issues:

- The TF on Material deprivation recommended starting from the 2008 operation, instead of using this variable HH090, to use the following variable HH091 with 3 answering categories.
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

⁴⁰ European Commission – "An EU Agenda for the Rights of the child" [COM(2011) 60]

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Age: Less than 6 years/ From 6 to 11 years/ From 12 to 17 years/Less than 18 years
- Income Situation in relation to the at risk of poverty threshold (INCGRP): Total

Reference period: Survey year for housing conditions. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mdho03c.sas

4.4.5.12 Share of total population considering their dwelling as too dark



Dataset: Share of total population considering their dwelling as too dark **Dissemination tree code:** <u>ilc_mdho04</u>

Data source: EU-SILC

Description: The percentage of persons in the total population considering they live in a too dark dwelling (HS160) in the relevent age, sex, household type and income group.

Key indicator(s) included in the dataset: Housing deprivation - dwelling too dark (OMC)

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. Access to good quality and affordable accommodation is a fundamental need and right. Ensuring that this need is met is still a significant challenge in a number of States.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income, household type, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population

Unit of measurement: Percentage of people in the total population

Main concepts used: --

Other concepts: Age, Household types (HHTYP), Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC)

Calculation method: The share of total population living in a too dark dwelling broken down by age, sex, household type and income group $(LACK_LIGHT_{at_age/sex/HHTYP/INCGRP})$ is calculated as the percentage of people living in a too dark dwelling (HS160 = 1) in each

age, sex, household type and income group over the total population in that breakdown (i.e. age, sex, household type and income group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).



Methodological issues:

- The objective is to assess whether the respondent feels 'the dwelling being too dark, not enough day-light' to be a problem for the household. No common objective standards as to what a 'problem' refers to are implied. The questions asks whether the household feels that there is a problem with most of the rooms being too dark (not necessarily all of the rooms).
- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/ Less than 18 years/ From 18 to 64 years/ 65 years or over
- Household type (HHTYP): Total/Single person/ One adult younger than 65 years/ One adult older than 65 years/ Single person with dependent children/ Single female/ Single male/ Two adults/ Two adults younger than 65 years/ Two adults, at least one aged 65 years and over/ Two adults with one dependent child/ Two adults with two dependent children/ Two adults with three or more dependent children/ Three or more adults/ Three or more adults with dependent children/ Households with dependent children/ Households with dependent children
- Income Group (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Survey year for sex and housing conditions. Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mdho04.sas

4.4.5.13 Share of children (aged 0 to 17) living in households considering their dwelling as too dark



Dataset: Share of children (aged 0 to 17) living in households considering their dwelling as too dark

Dissemination tree code: <u>ilc_mdho04c</u> **Data source**: EU-SILC

Description: Children (as percentage of persons) in the total population aged 0 to 17 years considering they live in a too dark dwelling (HS160) in the relevant age and income group.

Key indicator(s) included in the dataset: Housing deprivation - dwelling too dark (OMC)

Policy relevance:

The promotion and protection of the rights of the child is one of the objectives of the EU 2020 Agenda. The Europe 2020 Strategy sets out a vision for the 21st century of a Europe where the children of today will have a better education, access to the services and to the resources they need to grow up^{41} .

Statistical population: All persons (aged 0 to 17) living in private households. People with missing values for equivalised disposable income or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population **Unit of measurement:** Percentage of people in the total population

Main concepts used: --

Other concepts Age, <u>Median Equivalised disposable Income after social transfers</u> (MEDIAN20), <u>Equivalised disposable Income (EQ_INC)</u>

Calculation method: The share of the population, aged 0 to 17, living in a too dark dwelling broken down by age, and income group $(LACK_LIGHTagex_{at_INCGRP})$ is calculated as the percentage of people living in a too dark dwelling (HS160 = 1) in each age, and income group over the total population in that breakdown (i.e. age and income group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$LACK_LIGHTagex_{at_INCGRP} = \frac{\bigvee_{i \text{ where } HS160=1_at_INCGRP}}{\sum_{\forall i_at_INCGRP} NB050a_{i}} \cdot 100$$

where *agex* takes the values: less than 6 years, less than 18 years, from 6 to 11 years, from

⁴¹ <u>European Commission – "An EU Agenda for the Rights of the child" [COM(2011) 60]</u>

12 to 17 years.

Methodological issues:

- The objective is to assess whether the respondent feels 'the dwelling being too dark, not enough day-light' to be a problem for the household. No common objective standards as to what a 'problem' refers to are implied. The questions asks whether the household feels that there is a problem with most of the rooms being too dark (not necessarily all of the rooms).
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Switzerland, Turkey)
- Time
- Age: Less than 6 years/ From 6 to 11 years/ From 12 to 17 years/Less than 18 years
- Income Situation in relation to the at risk of poverty threshold (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Survey year for housing conditions. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mdho04c.sas

4.4.5.14 Share of total population having neither a bath, nor a shower, nor indoor flushing toilet in their household



Dataset: Share of total population having neither a bath, nor a shower, nor indoor flushing toilet in their household

Dissemination tree code: <u>ilc_mdho05</u>

Data source: EU-SILC

Description: The percentage of persons in the total population living in a dwelling without bath or shower (HH080) and without indoor flushing toilet for the sole use of their household

(HH090) in the relevent age, sex, household type and income group.

Key indicator(s) included in the dataset: --

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. Access to good quality and affordable accommodation is a fundamental need and right. Ensuring that this need is met is still a significant challenge in a number of States.

Statistical population: All persons living in private households. People with missing values for equivalised disposable income, household type, sex or age are excluded. Persons living in collective households and in institutions are generally excluded from the target population **Unit of measurement:** Percentage of people in the total population

Main concepts used: --

Other concepts: Lack of bath or shower and lack of toilet (LACK_BST), Age, Household types (HHTYP), Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC)

Calculation method: The share of total population living in a dwelling without bath or shower and without indoor flushing toilet for the sole use of their household broken $(LACK_BST = 1)$ down by age, sex, household type and income group $(LACK_BSTrate_{at_age/sex/HHTYP/INCGRP})$ is calculated as the percentage of people living in a dwelling without bath or shower and without indoor flushing toilet for the sole use of their household in each age, sex, household type and income group over the total population in that breakdown (i.e. age, sex, household type and income group). The weight variable used is the adjusted cross sectional weight RB050a.

$$LACK_BSTrate_{at_age/sex/HHTYP/INCGRP} = \frac{\sum_{i=1_at_age/sex/HHTYP/INCGRP} RB050a_{i}}{\sum_{\forall i_at_age/sex/HHTYP/INCGRP} \cdot 100}$$

Methodological issues:

- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Sex (SEX): Total/Male/Female
- Age: Total/ Less than 18 years/ From 18 to 64 years/ 65 years or over
- Household type (HHTYP): Total/Single person/ One adult younger than 65 years/ One adult older than 65 years/ Single person with dependent children/ Single female/ Single male/ Two adults/ Two adults younger than 65 years/ Two adults, at least one aged 65 years and over/ Two adults with one dependent child/ Two adults with two dependent children/ Two adults with three or more dependent children/ Three or more adults/ Three or more adults with dependent children/ Households with dependent children/ Households with dependent children
- Income Group (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Survey year for sex and housing conditions. Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mdho05.sas

4.4.6 Environment of the dwelling (ilc_mddw)

4.4.6.1 Noise from neighbours or from street



Dataset: Noise from neighbours or from street **Dissemination tree code:** <u>ilc_mddw01</u> Data source: EU-SILC

Description: Percentage of total population who face the problem of too much noise in their dwelling from neighbours or from outside (traffic, business, factory, etc.) in the relevant household type and income group.

Key indicator(s) included in the dataset: --

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. It can refer to both individuals, and communities in a broader framework with linked problems such as low incomes and noise polluted environments. More specifically noise pollution is related with groups vulnerable to social exclusion such as the elderly, whose health is already vulnerable and children. Children are also highly affected by noise pollution since they have the need

for high quality sleep and communication, particularly school age children. This is because noise interfeers with the learning of speech communication for children and those learning a new language.

Statistical population: All individuals living in private households. Households and individuals with missing any of the breakdown variables are excluded from the calculation. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Noise from neighbours or from the street (HS170) describes the situation where the respondent feels noise from neighbours or from outside to be a problem for the household (not on the fact to be bothered by the problem).

Other concepts: Household types (HHTYP), Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC)

Calculation method: The indicator that describes the noise from neighbours or from street broken down by household type and income group $(NOISE_{at_HHTYP/INCGRP})$ is calculated as the percentage of people in each household type group and income group who report to be feeling noise from neighbours or from the street (HS170=1) over the total population in that breakdown (i.e. household type group and income group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$NOISE_{at_HHTYP/INCGRP} = \frac{\forall_{i \text{ where } HS170=1_at_HHTYP/INCGRP}}{\sum_{\forall_{i_at_HHTYP/INCGRP}} \cdot 100} \cdot 100$$

Methodological issues:

- The objective is to assess whether the respondent feels 'noise from neighbours or from outside' to be a problem for the household (not on the fact to be bothered by the problem). However, no common standards of what is a problem are defined.
- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household type (HHTYP): Total/ Single person/ One adult younger than 65/ One adult older than 65/ Single person with dependent children/ Single female/ Single male/ Two adults/ Two adults younger than 65 years/ Two adults at least one aged 65 years and over/ Two adults with one dependent child/ Two adults with two dependent children/ Two adults with three or more dependent children/ Three or more adults/ Three or more adults with dependent children/ Households with dependent children/ Households with dependent children/ Households with dependent children
- Income Group (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Survey year for the reporting of noise from neighbours or from the street. Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mddw01.sas

4.4.6.2 Pollution, grime or other environmental problems



Dataset: Pollution, grime or other environmental problems **Dissemination tree code:** <u>ilc_mddw02</u> Data source: EU-SILC

Description: Percentage of total population who face the problem of pollution, grime or other environmental problems in the local area such as: smoke, dust, unpleasant smells or polluted water in the relevant household type and income group.

Key indicator(s) included in the dataset: --

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. It can refer to both individuals, and communities in a broader framework with linked problems such as low incomes and polluted environments. Factories are found predominantly in the more deprived areas. Deprived communities bear the burnt of factory pollution (e.g. air pollution).

Statistical population: All individuals living in private households. Households and individuals with missing any of the breakdown variables are excluded from the calculation. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Pollution, grime or other environmental problems (HS180) describes the situation where the respondent feels pollution, grime or other environmental problems to be a problem for the household (not on the fact to be bothered by the problem).

Other concepts: Household types (HHTYP), Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC)

Calculation method: The indicator that describes pollution, grime and other environmental problems broken down by household type and income group (*POLLUTION*_{at_HHTYP/INCGRP}) is calculated as the percentage of people in each household type group and income group who report to be feeling pollution, grime or other environmental problems (HS180=1) over the total population in that breakdown (i.e. household type group and income group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$POLLUTION_{at_HHTYP/INCGRP} = \frac{\sum_{i \text{ where } HS180=1_at_HHTYP/INCGRP}}{\sum_{\forall i_at_HHTYP/INCGRP}} \cdot 100$$

Methodological issues:

- The objective is to assess whether the respondent feels 'pollution, grime,...' to be a problem for the household (not on the fact to be bothered by the problem). No common standards what is a problem are defined.
- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household type (HHTYP): Total/ Single person/ One adult younger than 65/ One adult older than 65/ Single person with dependent children/ Single female/ Single male/ Two adults/ Two adults younger than 65 years/ Two adults at least one aged 65 years and over/ Two adults with one dependent child/ Two adults with two dependent children/ Two adults with three or more dependent children/ Three or

more adults/ Three or more adults with dependent children/ Households without dependent children/ Households with dependent children

• Income Group (INCGRP): Below 60% of median equivalised income/ Above 60% of median equivalised income/ Total

Reference period: Survey year for the reporting of pollution, grime or other environmental problems. Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mddw02.sas

4.4.6.3 Crime, violence or vandalism in the area



Dataset: Crime, violence or vandalism in the area **Dissemination tree code:** <u>ilc_mddw03</u> Data source: EU-SILC

Description: Percentage of total population who face the problem of crime, violence or vandalism in the local area in the relevant household type and income group.

Key indicator(s) included in the dataset: --

Policy relevance: Since the launch of the EU social inclusion strategy, poor housing conditions have been highlighted as a key factor of social exclusion. It can refer to both individuals, and communities in a broader framework with linked problems such as low incomes, unemployment and high crime environments. Fear of crime and disorder keeping people away from social interaction areas. These local environmental conditions are reflected in greater dissatisfaction and serious impacts on quality of life for those living in low-income areas.

Statistical population: All individuals living in private households. Households and individuals with missing any of the breakdown variables are excluded from the calculation. Persons living in collective households and in institutions are generally excluded from the target population.

Unit of measurement: Percentage of people in the total population

Main concepts used:

Crime, violence or vandalism in the area (HS190) describes the situation where the respondent feels crime, violence or vandalism in the area to be a problem for the household (not on the fact to be bothered by the problem).

Other concepts: Household types (HHTYP), Median Equivalised disposable Income after social transfers (MEDIAN20), Equivalised disposable Income (EQ_INC)

Calculation method: The indicator that describes crime, violence or vandalism in the area broken down by household type and income group $(CRIME_{at_HHTYP/INCGRP})$ is calculated as the percentage of people in each household type group and income group who report to be feeling crime, violence or vandalism (HS190=1) in the area over the total population in that breakdown (i.e. household type group and income group). The weight variable used is the Adjusted Cross Sectional Weight (RB050a).

$$CRIME_{at_HHTYP/INCGRP} = \frac{\sum_{i=1}^{N} RB050a_{i}}{\sum_{i=1}^{N} RB050a_{i}} \cdot 100$$

Methodological issues:

- The objective is to assess whether the respondent feels 'crime, violence or vandalism' to be a problem for the household (not on the fact to be bothered by the problem). No common standards what is a problem are defined.
- The classification of households is not mutually exclusive. A single man aged 66, for example, is included in both the category "one adult, older than 65 years" and in the category "single person".
- The aim of the core variable on household composition is to collect information about the size and composition of the private household to which the respondent belongs and on the relationships between household members. The social situation of an individual is at least in part a reflection of their household arrangements.
- The place of usual residence is used as the basis of the household membership. The existence of shared expenses in the household (including benefiting from expenses as well as contributing to expenses) is used to determine who is regarded as household member.
- Crime is to be defined as a deviant behaviour that violates prevailing norms, specifically, cultural standards prescribing how humans ought to behave normally. A legalistic approach is not to be used.

Breakdowns: The dataset provides percentages for the whole population and also broken down by

- Geographical entity: (GEO): EU/Euro area/New member states/Countries (EU Member states, Iceland, Norway, Croatia, Switzerland, Turkey)
- Time
- Household type (HHTYP): Total/ Single person/ One adult younger than 65/ One adult older than 65/ Single person with dependent children/ Single female/ Single male/ Two adults/ Two adults younger than 65 years/ Two adults at least one aged 65 years and over/ Two adults with one dependent child/ Two adults with two dependent children/ Two adults with three or more dependent children/ Three or more adults/ Three or more adults with dependent children/ Households with out dependent children/ Households with dependent children
- Income Group (INCGRP): Below 60% of median equivalised income/ Above 60%

of median equivalised income/ Total

Reference period: Survey year for the reporting of crime, violence or vandalism in the area. Household type is derived based on the Age variable. Age is the age of the respondent at the end of income reference period. Income reference period for income variables – with the exceptions of Ireland (moving income reference period) and the UK (survey year).

SAS program: _mddw03.sas