Introduction to Social Statistics
(Day 2 - Session 1)

EU-SILC

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EU-SILC

- EU-SILC stands for: the European Union – Statistics on Income and Living Conditions
- The main reference source for income and living conditions statistics in the EU (& EFTA and candidate countries), including:
  - Household income distribution statistics
  - At-risk-of-poverty rate (AROP)
  - Material deprivation indexes
  - At-risk-of-poverty and social exclusion rate (AROPE)
EU-SILC – legal basis

- **Framework regulation** (EC) 1177/2003 of the EP and of the Council concerning Community statistics on income and living conditions (EU-SILC)
- Implementing Commission regulations:
  1. 1980/2003 (main concepts and definitions)
  2. 1981/2003 (fieldwork aspects and the imputation procedures)
  3. 1982/2003 (sampling and tracing rules)
  4. 1983/2003 (EU output variables)
  5. 28/2004 (quality reports)
EU-SILC – content

• Regular annual „core“ part
  • The so-called primary target variables, as defined in the Commission regulation 1983/2003
  • Several other jointly provided variables on more detail for some primary target variables added in the course of the survey implementation

• (Ad-hoc) module for a given year
  • The so-called secondary target variables
  • Defined in a separate dedicated Commission regulation for each module
### EU-SILC – „core“ content

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- **Selected respondent**
  - Detailed 16+ variables
EU-SILC – household definition

- Housekeeping / sharing of expenses concept

„person living alone or a group of people who live together in the same private dwelling and share expenditures, including the joint provision of the essentials of living“
EU-SILC – content

• SILC output data files structure
  • **D-file: household register file**
    All households in the sample, incl. non-responding
  • **H-file: household data**
    Household level variables, responding households
  • **R-file: personal register**
    All persons, incl. former household members compared to the previous wave
  • **P-file: personal data**
    Current household members aged 16+
EU-SILC – content

• Variables split into domains / areas
  • **B**: basic household and personal data
    incl. IDs, weights and sample design variables
  • **Y**: income
  • **L**: labour + childcare
  • **E**: education
  • **H**: housing (household level variables) / health
    (personal level variables)
  • **S**: social exclusion
EU-SILC – content

• EU-SILC output variables - some examples:
  • **DB030 Household ID** (household register file)
  • **HS120 Ability to make ends meet**
  • **RB080 Year of birth**
  • **PE040 Highest ISCED level attained**

• **HY020 Total household disposable income**
• **PY010N Employee cash or near cash income (net)**
EU-SILC – income variables

• Household disposable income concept

• International standardisation
  • „Canberra manual“, 2nd. edition
    Canberra Group Handbook on Household Income Statistics (UN, 2011)

• Link to the System of National Accounts (SNA)
  With some operational differences...

• The issue of imputed rent
EU-SILC – income reference period

• 12 months period
  • Previous calendar year
    or
  • Last 12 months preceding the interview

• „Current“ income questions
  • PY200G Gross monthly earnings for employees
    (for gender pay gap)
  • Current (monthly) household disposable income
    Core / standardised social variable on household income concept
EU-SILC – main income components

- Employee income
  - Cash
  - Near-cash
  - Fringe benefits
    - Company car (for private use)
    - Other

- Income from self-employment
EU-SILC – main income components

• Property income
  • Rental of property or land
  • Interest, dividends
  • Profit from capital investments in unincorporated business (other than self-employment)

• Private pensions
  • Pensions from individual private plans
EU-SILC – main income components

• Social transfers
  • Split into ESSPROS categories: family/children, housing, unemployment, old-age, disability, education, social exclusion not elsewhere classified
  • Contributory / non-contributory, means-tested / non means-tested

• Regular inter-household transfers
  • Received / paid
EU-SILC – tax / social insurance

- Social insurance contributions
- Income taxes
- Gross-net / net-gross income conversion
  Income components level / total household income level
- Regular taxes on wealth
EU-SILC – main income components

- Non-monetary income (in kind)
  - Non-cash employee income
  - Value of goods produced for own consumption
  - (Social transfers in kind)
EU-SILC – income data sources

• Interview data
  • Collected in the household questionnaire / personal questionnaires (16+)

• Register data
  • Persons in the sample linked to an administrative register with income data (tax register, social security register, …)
  • Linked via identifier (PINs, social security number, …) or via matching with register data
EU-SILC – making ends meet question

„A household may have different sources of income and more than one household member may contribute to it. Thinking of your household's total income, is your household able to make ends meet, namely, to pay for its usual necessary expenses?“

1 With great difficulty
2 With difficulty
3 With some difficulty
4 Fairly easily
5 Easily
6 Very easily
EU-SILC – material deprivation items

- **ARREARS** on mortgage or rental payments / utility bills / hire purchase instalments or other loan payments
- **Capacity to afford** paying for **one week annual holiday away from home**
- **Capacity to afford** a **meal with meat, chicken, fish (or vegetarian equivalent) every second day**
- **Capacity to face** **unexpected financial expenses**
- **Telephone** (including mobile phone)
- **Colour TV**
- **Washing machine**
- **Car**
- **Ability to keep** home adequately warm
EU-SILC – modules

- 2005 Intergenerational transmission of poverty
- 2006 Social participation
- 2007 Housing conditions
- 2008 Over-indebtedness and financial exclusion
- 2009 Material deprivation
- 2010 Intra-household sharing of resources
- 2011 Intergenerational transmission of disadvantages
- 2012 Housing conditions
- 2013 Wellbeing
- 2014 Material deprivation
- 2015 Social and cultural participation and material deprivation
- 2016 Access to services
- 2017 Health and children’s health (+ testing potential future rotating core modules)
EU-SILC – target population

• All private households and their current members residing in the territory of the Member States at the time of data collection

• Excluded are
  • Persons in collective households and institutions
  • Small parts on national territories (up to the maximum of 2 % of national population)
  • Some specific geographical areas excluded by derogation in the sampling and tracing rules implementing regulation
EU-SILC – survey modes

- CAPI (Computer Assisted Personal Interviewing)
- PAPI (Paper and Pencil Assisted Personal Interviewing)
- CATI (Computer Assisted Telephone Interviewing)
- Self-administered questionnaires

- Proxy interviews - other person from the household responding to personal questionnaire
EU-SILC – sampling requirements

• Nationally representative probability sample of the population residing in private households
• Irrespective of: legal residence status, nationality or language
• Flexibility is maintained concerning particular national sampling frames
EU-SILC – sampling frames & units

- Population registers
- National register of dwellings
- Census based sampling frames
- National postal delivery addresses register
- Register of private telephone connections
- Sub-sample of other (larger) national survey

- Samples of dwellings vs. samples of persons
EU-SILC – sample designs

• Simple random sampling

• Stratified sampling

• Two-stage stratified sampling
EU-SILC – minimum sample sizes

- Framework regulation: minimum country sample sizes specified in terms of their „effective sample size“

  \[
  \text{Effective sample size} = \frac{(\text{Gross sample size} \; \text{minus} \; \text{non-eligible units (overcoverage)} \; \text{minus} \; \text{non-response})}{\text{Achieved sample size} \; \text{divided by} \; \text{design effect (deff) for the at-risk-of poverty rate}}
  \]

  \text{Effective sample size}
EU-SILC – longitudinal dimension

• Longitudinal component with the minimum duration of 4 years

• Tracing rules (Reg. 1982/2003):
  • Sample persons to be traced
  
  • Followed up when they:
    Remain within private households within the respective country

  • Dropped when they:
    Die (... for obvious reasons)
    Move to a collective household or institution (... out of the SILC target population)
    Move abroad (... tracing in principle possible, but not implemented due to operational difficulty)
EU-SILC – longitudinal dimension

• Household sample for wave 2+
  • All households containing at least one sample person

• Split-off households
  • New household cases created along the moved sample persons

• Co-residents
  • Members of wave 2+ households who are not sample persons
EU-SILC – rotational design

Year N

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<tr>
<th>Wave 1</th>
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<th>Wave 3</th>
<th>Wave 4</th>
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Year N+1

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Year N+2

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New
EU-SILC – rotational design

CZ „Životní podmínky“ / EU-SILC 2016

- 4 750 Wave 1 dwellings
- 2 245 Wave 2 dwellings
- 2 106 Wave 3 dwellings, incl. 37 split-offs carried from 2015
- 1 815 Wave 4 dwellings, incl. 25 split-offs carried from 2014/2015

New

HBS

4 000 dwellings sampled in 2015
4 000 dwellings sampled in 2014
3 600 dwellings sampled in 2013
EU-SILC – future / revision

• Integration into the IESS Integrated European Social Statistics framework regulation
  ... more about it tomorrow

• Revision of the SILC core content

• Rotating core modules (every 3 years)

• Length of the longitudinal component
  Extending the minimum duration from 4 to 6 years