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**Small Area Methods for Monitoring
of Poverty and Living conditions in
EU (SAMPL-EU)**

Lecture 1 quater: Laeken Indicators

<http://sampleu.ec.unipi.it>



Laeken European Council

- the Laeken European Council in December 2001 endorsed a first set of 18 common statistical indicators for social inclusion, which will allow monitoring in a comparable way of Member States' progress towards the agreed EU objectives.

Four dimensions of social exclusion

- These indicators need to be considered as a consistent whole reflecting a balanced representation of EU social concerns.
- They cover four important dimensions of social inclusion (**financial poverty, employment, health and education**),
- These highlight the “multidimensionality” of the phenomenon of social exclusion

Indicators

- Indicator 1a : At-risk-of-poverty rate by age and gender
- Indicator 1b : At-risk-of-poverty rate by most frequent activity and gender
- Indicator 1c : At-risk-of-poverty rate by household type
- Indicator 1d : At-risk-of-poverty rate by tenure status

Indicators

- Indicator 1e : At-risk-of-poverty threshold (illustrative values)
- Indicator 2 : Inequality of income distribution S80/S20 quintile share ratio
- Indicator 3 : At-persistent-risk-of-poverty rate by gender (60% median)
- Indicator 4 : Relative at-risk-of-poverty gap

Indicators

- Indicator 5 : Regional cohesion (dispersion of regional employment rates)
- Indicator 6 : Long term unemployment rate
- Indicator 7 : Persons living in jobless households
- Indicator 8 : Early school leavers not in education or training

Indicators

- Indicator 9 : Life expectancy at birth
- Indicator 10 : Self defined health status by income level
- Indicator 11 : Dispersion around the at-risk-of-poverty threshold
- Indicator 12 : At-risk-of-poverty rate anchored at a moment in time

Indicators

- Indicator 14 : Inequality of income distribution
Gini coefficient
- Indicator 15 : At-persistent-risk-of-poverty
rate by gender (50% median)
- Indicator 16 : Long term unemployment share
- Indicator 17 : Very long term unemployment
rate
- Indicator 18 : Persons with low educational
attainment

Primary indicators

- o Indicators 1: At-risk-of-poverty rate, broken down by various characteristics, such as (a) age and gender, (b) most frequent activity status, (c) household type, and (d) accommodation tenure status, (e) gender among workers, and (f) work intensity.
- o Indicator 2: Inequality of income distribution: S80/S20, income quintile share ratio
- o Indicator 4: Relative median at-risk-of-poverty gap, by age and gender

1. At-risk-of-poverty rate

1.1 At-risk-of-poverty rate (after social transfers)

1.1.1 Definition

The share of persons with an equivalised total net income below 60% national median income.

1.1.2 Algorithm

1.1.2.1 Calculation of equivalised income

The total net income of each household is calculated by adding together the income received by all the members of the household from all sources.

For each person, the ‘equivalised total net income (EQ_INC)’ is calculated as its household total net income divided by equivalised household size according to the modified OECD scale (which gives a weight of 1.0 to the first adult, 0.5 to other persons aged 14 or over who are living in the household and 0.3 to each child aged less than 14).

Consequently, each person in the same household receives the same ‘equivalised total net income’.

The population consists of all the persons living in private households of a country. The term person therefore includes all the members of the households, whether they are adults or children.

Persons with missing ‘equivalised total net income’ are excluded from the calculations (ie. people with missing household income or households with missing composition details).

1.1.2.2 Calculation of the 'at-risk-of-poverty threshold'

Firstly, persons have to be sorted according to their 'equivalised total net income' (sorting order: lowest to highest value).

Secondly, the median is calculated as the equivalised income of the household person for whom the cumulative sum of personal weights is less than or equal to 50% of the total sum of weights.

In other words, persons in the same household are located together, on the same side of the median.

Thirdly, the 'at-risk-of-poverty threshold' is calculated as 60% of the national median.

$$\text{At risk of poverty threshold} = 60\% * EQ_INC_i \Big|_{i=\text{person for whom the cumulated sum of weights} = 0.5 * \text{total sum of weights}}$$

1.1.2.3 Calculation of 'at-risk-of-poverty rate (after social transfers)'

The 'at-risk-of-poverty rate (after social transfers)' is calculated as the percentage of persons with an equivalised net total income below the 'at-risk-of-poverty threshold'.

$$\text{At risk of poverty rate (after social transfers)} = \frac{\sum_{\text{All persons: EQ_INC} < \text{at risk of poverty threshold}} \text{Weights}}{\sum_{\text{All persons}} \text{Weights}}$$

1.1.2.4 Calculation of the EU average

The EU average of the 'at-risk-of-poverty rates (after social transfers)' established for each individual country is calculated as a weighted average of the country rates, where the weighting of countries is done according to the number of persons living in private households (POPTOT) in each country.

$$EU \text{ average of 'at risk of poverty rate'} = \frac{\sum_{\text{all countries}} ('at risk of poverty rate'_i * POPTOT(year)_i)}{\sum_{\text{all countries}} (POPTOT(year)_i)}$$

year = year of the survey