# Inclusive Growth in the EU – At A Glance

## Dashboard of distributional trends using the EU-SILC

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Poverty & Equity Global Practice
Europe & Central Asia Region

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# 1. Concept

**Concept: easy access and adaptable to staff needs**

Visualize statistics on socio-economic outcomes and profiles of different populations and make this information a public good for all World Bank staff as inputs to analyses.

**Value added: moving beyond national averages**

a. *Comparison across countries and years.* All indicators are harmonized across time and space to allow for ranking and document progress over time.

b. *Comparison between different social groups.* Beyond national aggregates provided by Eurostat, these dashboards offer the flexibility to profile by different social groups (absolute and relative poor, bottom 40 and quintiles, location, education and gender).

c. *Inclusion of World Bank-specific indicators and groups* such as absolute poverty at different international poverty lines, welfare of the bottom 40, and social protection incidence.

**Input: harmonized micro data**

Utilize the EU-Statistics on Income and Living Condition (EU-SILC) micro data provided by Eurostat, which have a harmonized structure across all European countries and years (2005-2015) and include a wide set of indicators related to demographics, education, labor market outcomes and income structure (on the individual and household levels).

# 2. Background about the EU-SILC

The EU-SILC project was launched in 2003 on the basis of a "gentlemen's agreement" in six Member States (Belgium, Denmark, Greece, Ireland, Luxembourg and Austria) and Norway. The start of the EU-SILC instrument was in 2004 for the EU-15 (except Germany, the Netherlands, and the United Kingdom) and Estonia, Norway and Iceland. EU-25 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.[1]

EU-SILC is organized 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 harmonized 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 maximizing comparability of the information produced.

It provides two types of annual data which can conceivably come from separate sources and do not need to be "linkable" at the micro-level.

- 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

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[1] For more details on the methodology and data, see METHODOLOGICAL GUIDELINES AND DESCRIPTION OF EU-SILC TARGET VARIABLES published by Eurostat.

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

These dashboards are based on the cross-sectional data.

# 3. Coverage and profiling variables of the EU dashboards

## 3.1 Coverage and country groupings

The EU dashboards cover all years available in the EU SILC data (see below). The country groupings are based on the groupings defined in the most recent Regional Economic Review. In addition to country-level estimates, there are also sub-regional aggregates, which are averages across countries weighted by the relevant population.

**EU North**

|  | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Denmark | | | | | | | | | | | |
| Estonia | | | | | | | | | | | |
| Finland | | | | | | | | | | | |
| Ireland | | | | | | | | | | | |
| Latvia | | | | | | | | | | | |
| Lithuania | | | | | | | | | | | |
| Sweden | | | | | | | | | | | |
| United Kingdom | | | | | | | | | | | |
| *Aggregate EU North* | | | | | | | | | | | |

**EU South**

|  | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bulgaria | | | | | | | | | | | |
| Cyprus | | | | | | | | | | | |
| Greece | | | | | | | | | | | |
| Italy | | | | | | | | | | | |
| Portugal | | | | | | | | | | | |
| Malta | | | | | | | | | | | |
| Romania | | | | | | | | | | | |
| Spain | | | | | | | | | | | |
| *Aggregate EU South* | | | | | | | | | | | |

**EU Continental**

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Austria | | | | | | | | | | | |
| Belgium | | | | | | | | | | | |
| Croatia | | | | | | | | | | | |
| Czech Republic | | | | | | | | | | | |
| France | | | | | | | | | | | |
| Germany | | | | | | | | | | | |
| Hungary | | | | | | | | | | | |
| Luxembourg | | | | | | | | | | | |
| Netherlands | | | | | | | | | | | |
| Poland | | | | | | | | | | | |
| Slovak Republic | | | | | | | | | | | |
| Slovenia | | | | | | | | | | | |
| *Aggregate EU Continental* | | | | | | | | | | | |

**Non-EU**

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Iceland | | | | | | | | | | | |
| Switzerland | | | | | | | | | | | |
| Norway | | | | | | | | | | | |
| *Aggregate Non EU* | | | | | | | | | | | |

## 3.2 Social groups and sub groups

### a) All

Total population

### b) Age groups

   a) Total population
   b) 16-24
   c) 25-34
   d) 35-49
   e) 50-64
   f) Old 65+
   g) Working age 16 to 64

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### b) Absolute poverty at different lines: Poor and non-poor

Absolute poverty is defined as a situation in which individual's basic needs are not covered, in other words, there is a lack of basic goods and services (normally related to food, housing and clothes). Poor represents the group of individuals who live in households that have a disposable income per capita of less than the poverty line.

Three poverty lines are included: $1.90/day, $3.20/day, and $5.50/day, all of which are calculated at the purchasing power parity (PPP) of 2011.

### c) Relative poverty at different thresholds: Poor and non-poor

Relative poverty (or sometimes referred to as national poverty) is defined as the condition in which in individuals lack the minimum amount of income in order to maintain the average standard of living in the society in which they live. It is defined relative to other residents in that country and, therefore, differs across countries. Poor represents the group of individuals who live in households that have an equalized disposable income of less than the poverty line. In the current dashboard, only the relative poverty line of 60% is used, which represents a percentage of the national median income of the total population. The poverty line of 60% is also the threshold for at risk of poverty as defined by Eurostat.

### d) Bottom 40 and Top 60

Bottom 40 represents the group of individuals who live in households that have a disposable income per capita in the lowest four deciles of the population.

### e) Income quintile (before and after social transfers): Quintiles 1 to 5

This is a division of individuals in the population into five equally sized groups, according to the disposable income per capita of the households to which they belong.

Two definitions of income are included: before and after social transfers. Social transfers include unemployment benefits, old-age benefits, survivor' benefits, sickness benefits, disability benefits; education-related allowances; family/children related allowances; social exclusion not elsewhere classified, and housing allowances.

### f) Highest level of education obtained: Primary, secondary and tertiary education

Educational attainment are classified according to the International Standard Classification of Education (ISCED):

- Level 0: Pre-primary education – the initial stage of organized instruction; it is school- or center-based and is designed for children aged at least three years.

- Level 1: Primary education – begins between five and seven years of age, is the start of compulsory education where it exists and generally covers six years of full-time schooling.

- Level 2: Lower secondary education – continues the basic programs of the primary level, although teaching is typically more subject-focused. Usually, the end of this level coincides with the end of compulsory education.

- Level 3: Upper secondary education – generally begins at the end of compulsory education. The entrance age is typically 15 or 16 years. Entrance qualifications (end of compulsory education) and other minimum entry requirements are usually needed. Instruction is often more subject-

oriented than at ISCED level 2. The typical duration of ISCED level 3 varies from two to five years.

- Level 4: Post-secondary non-tertiary education – between upper secondary and tertiary education. This level serves to broaden the knowledge of ISCED level 3 graduates. Typical examples are programs designed to prepare pupils for studies at level 5 or programs designed to prepare pupils for direct labor market entry.

- Level 5: Tertiary education (first stage) – entry to these programs normally requires the successful completion of ISCED level 3 or 4. This includes tertiary programs with academic orientation (type A) which are largely theoretical and tertiary programs with an occupational orientation (type B). The latter are typically shorter than type A programs and aimed at preparing students for the labor market.

- Level 6: Tertiary education (second stage) – reserved for tertiary studies that lead to an advanced research qualification (Ph.D. or doctorate).

Individuals with primary education include those that obtained levels 0-2; secondary are levels 3-4; and tertiary are levels 5-6.

## g) Location: Densely, intermediate and thinly population

The location is based on the degree of urbanization defined by Eurostat. Based on the share of local population living in urban clusters and in urban centers, it classifies Local Administrative Units level 2 (LAU2 or communes) into three types of area:

- Thinly populated area (rural area)

- Intermediate density area (towns and suburbs/small urban area)

- Densely populated area (cities/large urban area)

## h) Urban and rural

This classification groups the densely populated and intermediate density areas as urban and the thinly population area as rural.

## i) Sex: Male and Female

Sex of the individual.

# 4. Indicator definition[2]

The list of indicators is sorted into topics.

## 4.1 Demographics

### Adverse health status (%)

Self-perceived health status, being either bad or very bad. Only applicable to individuals aged 16 and above.

### Age

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. If AGE=-1, age is set to AGE = 0.

### Age, household head

The household head is defined as the ideal "household respondent" per EU-SILC definition, which is considered to be the person responsible for the dwelling. The household member responding to the household questionnaire may differ from the ideal one.

### Elderly only households (65+) (%)

Households that is composed of only elderly (aged 65+).

### Female (%) and female, household head (%)

If the individual or the household head is female, otherwise male.

### Household composition: children (0-15) (%)

The number of children (aged 0-15) as a share of the total number of people in the household.

### Household composition: elderly (65+) (%)

The number of elderly (aged 65 or above) as a share of the total number of people in the household.

### Household composition: children (0-15) and elderly (65+) (%)

The number of children (aged 0-15) and elderly (aged 65 or above) as a share of the total number of people in the household.

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[2] Detailed information on the indicators and their definition can be found in the do files provided with the EU SILC Profiling Dashboards.

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## Household size

Number of current household members.

## Urban population (%)

The share of the population living in urban areas (as defined above).

## 4.2 Employment

All employment variables apply only to individuals aged 16 or above, unless otherwise specified.

### Employment rate (%)

Individuals who self-declare as employed (including wage employees and self-employed) as a share of the population who are active in the labor market.

### Unemployment rate (%)

Individuals who self-declare as unemployed as a share of the population who are active in the labor market.

### Labor force participation (%)

Individuals who self-declare as employed or unemployed as a share of the population.

### Temporary contracts (%)

The share of wage employees who have a temporary contract. A job may be regarded as temporary if it is understood by both employer and the employee that the termination of the job is determined by objective conditions such as reaching a certain date, completion of an assignment or return of another employee who has been temporarily replaced. In the case of a work contract of limited duration the condition for its termination is generally mentioned in the contract.

To be included in these groups are:
- persons with a seasonal job
- persons engaged by an employment agency or business and hired out to a third party for the carrying out of a "work mission" (unless there is a work contract of unlimited duration with the employment agency or business)
- persons with specific training contracts. If there exists no objective criterion for the termination of a job or work contract these should be regarded as permanent or of unlimited duration.

## 4.3 Income level (2011 PPP/ 2015 EURO)

All income levels are converted to 2011 PPP or 2015 Euros to allow for comparison across countries and years.

The conversion to 2011 PPP is done in two steps. First, income is deflated by the yearly Consumer Price Index (CPI) provided by the International Monetary Fund to the 2011 year. Second, the income reported in Euros is converted to USD of 2011 using the PPP calculated by the International Comparison Program.

The conversion to 2015 Euros is based on the comparative price levels of final consumption by private households including indirect taxes provided by Eurostat.

Labor, social insurance (including pension), and education allowance income is collected at the individual level and then aggregated to the household level. All other income categories are collected at the household level information. The reported income refers to the year before the survey year.[3]

### Household income (per capita/ adult equivalent)

Income adult equivalent is defined as the total household income divided by the equivalized household size, whereby the first adult member counts as 1, each additional adult member (aged 14 and above) counts as 0.5, and each child (aged 13 or less) count as 0.3.

### Disposable income

Total household income net of taxes, mortgage payments, and private transfers to other households.

### Household capital income

The sum of income from rental of a property and Interest, dividends, profits from capital investment in an unincorporated business.

### Household disposable income before social transfer include old-age and social insurance

The household total disposable income minus total transfers (unemployment benefits; old-age benefits; survivor' benefits; sickness benefits; disability benefits; education-related allowances; family/children related allowances; social exclusion not elsewhere classified and housing allowances).

### Household disposable income before social transfer other than old-age and social insurance

The household total disposable income minus total transfers plus old age benefits and survivor' benefits (i.e. total disposable income minus unemployment benefits; sickness benefits; disability benefits; education related allowances; family/children related allowances; social exclusion not elsewhere classified and housing allowances).

### Household gross income

The sum for all household members of gross personal income components (gross employee cash or near cash income; company car; gross cash benefits or losses from self-employment (including royalties); unemployment benefits; old-age benefits; survivor' benefits, sickness benefits; disability benefits and education-related allowances) plus gross income components at household level: income from rental of a property or land; family/children related allowances; social exclusion not elsewhere

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[3] In the UK and Slovenia, the income year is the same as the survey year as they make use of administrative data.

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classified; housing allowances; regular inter-household cash transfers received; interests, dividends, profit from capital investments in unincorporated business; income received by people aged under 16)

### Household labor income

The sum for all household members of gross employee cash or near cash income, gross non-cash employee income, and cash benefits or losses from self-employment. The indicator is only applicable to individuals aged 16 and above.

### Household other income

The sum for all household members of value of goods produced for own consumption, imputed rent, capital income, private transfers, and income earned by under-aged individuals (below 16).

### Household outflow

The sum for all household members of mortgage payments, and private transfers to other households.

### Household pension income

The sum for all household members of old-age benefits.

### Household social assistance

The sum for all household members of education related allowances, family/children related allowances, social exclusion not elsewhere classified, and housing allowance.

### Household social insurance income

The sum for all household members of unemployment benefits, old-age benefits, survivor' benefits, sickness benefits, disability benefits**.**

### Household social insurance other than pension

The sum for all household members of survivor' benefits, sickness benefits, disability benefits, unemployment benefits.

### Household tax payment

The sum for all household members of tax on income and social insurance contributions and regular taxes on wealth.

## Individual income

### Individual labor income

The sum for individuals of gross employee cash or near cash income, gross non-cash employee income, and cash benefits or losses from self-employment. The indicator is only applicable to individuals aged 16 and above.

### Individual pension

Individual's old-age benefits.

**Individual social insurance other than pension**

The sum for individuals of survivor' benefits, sickness benefits, disability benefits, unemployment benefits.

## 4.4 Income structure

The following income structure indicators represent the share of households that receive a positive value of income from the corresponding income source.

**<u>Household income structure</u>**

### Households paying tax (%)

The share of households paying taxes (definition of tax see above).

### Households receiving capital income (%)

The share of households receiving capital income (definition of capital income see above).

### Households receiving labor income (%)

The share of households receiving labor income (definition of labor income see above).

### Households receiving other income (%)

The share of households receiving other income (definition of other income see above).

### Households receiving pension (%)

The share of households receiving pension (definition of pension see above).

### Households receiving social assistance (%)

The share of households receiving social assistance (definition of social assistance see above).

### Households receiving social insurance (%)

The share of households receiving social insurance (definition of social insurance see above).

### Households receiving social insurance other than pension (%)

The share of households receiving social insurance other than pension (definition of social insurance other than pension see above).

### Households transferring to others (%)

The share of households paying private transfers.

**<u>Individual income structure</u>**

### Individuals receiving labor income (%)

The share of individuals receiving labor income (definition of labor income see above).

### Individuals receiving pension (%)

The share of individuals receiving pension (definition of pension see above).

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### Individuals receiving social insurance (%)

The share of individuals receiving social insurance (definition of social insurance see above).

### Individuals receiving insurance other than pension (%)

The share of individuals receiving social insurance other than pension (definition of social insurance other than pension see above).

### Income share (%)

The share of income in the total population that accrues to each subgroup of the population indicated by the subgroup filter.

## 4.5 Poverty and inclusive growth

**Absolute and relative monetary poverty**

### Absolute poverty at different levels (%)

See definition above.

### At risk of poverty (%)

One of the five headline targets of the Europe 2020 headline indicators is to reduce poverty by lifting at least 20 million people out of the risk of poverty or social exclusion by 2020.[4] The at-risk-of-poverty rate is the share of people with an equalized disposable income (after social transfer) below the at-risk-of-poverty threshold, which is set at 60 % of the national median equalized disposable income after social transfers. This indicator does not measure wealth or poverty, but low income in comparison to other residents in that country, which does not necessarily imply a low standard of living.[5]

**Material deprivation**

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. The definition of material deprivation is based on the inability to afford a selection of items that are considered to be necessary or desirable, namely:

### Inability to eat meat or proteins regularly (%)

Share of persons who are unable to eat meat or proteins regularly.

### Inability to keep home adequately warm (%)

Share of persons who are unable to keep home adequately warm.

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[4] Eurostat Statistics Explained: People at risk of poverty or social exclusion, http://ec.europa.eu/eurostat/statistics-explained/index.php/People_at_risk_of_poverty_or_social_exclusion
[5] Eurostat glossary: At-risk-of-poverty rate, http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:At-risk-of-poverty_rate

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## No car (%)

Share of persons who have no car.

## No telephone (%)

Share of persons who have no telephone.

## No TV (%)

Share of persons who have no TV.

## No washing machine (%)

Share of persons who have no washing machine.

## Other inclusive growth indicators

### Employment rate, 16 – 74 (%)

Individuals aged between 16 and 74 that declare themselves to be employed (employee or self-employed) as a share of the population of the same age group who are active in the labor market.

### Unemployment rate, aged 16 – 74 (%)

Individuals aged between 16 and 74 that declare themselves to be unemployed as a share of the population of the same age group who are active in the labor market.

### Labor force participation, aged 16 – 74 (%)

Individuals who self-declare as employed or unemployed as a share of the population in the same age group.

### Neither in employment nor in education, aged 16 – 24 (%)

The share of young people (aged 16-24) who are neither in employment nor in education and training, abbreviated as NEET. This refers to persons meeting these two conditions:

•they are not employed (i.e. unemployed or inactive according to the International Labor Organization definition);

•they have not received any education or training in the four weeks preceding the survey.

This excludes the respondents who have not answered the question "participation to regular education and training."

### Not in school, aged 18 – 24 (%)

Early leaver from education and training, previously named early school leaver, generally refers to a person aged 18 to 24 who has finished no more than a lower secondary education and is not involved in further education or training; their number can be expressed as a percentage of the total population aged 18 to 24. This indicator is also a target as part of the EU 2020 Strategy.

## Tertiary completed, aged 30 – 34 (%)

Individuals aged 30-34 with tertiary education (as defined above) as a share of individuals in the same age group. This indicator is also a target as part of the EU 2020 Strategy.

## Home ownership (%)

The share of households that own the dwelling they occupy.

## 4.6 Composition

## Location

See definition above

## Household size

See definition above

## Incomes sources

Income sources of labor income, pension income, social assistance income, social insurance other than pension income, other income, tax payment and outflow.

## Education

Applies to individuals aged 16 and above. Highest education level obtained. See definition above.

## Education, household head

Applies to individuals aged 16 and above. Highest education level obtained by household head. See definition above.

## Labor force status

Applies to individuals aged 16 and above. Measures the labor force status that individuals declare themselves as their main activity at present. For data before 2009, the categories only include 1 "Employed" (working or self-employed; full-time and part-time); 2 "Unemployed"; 3 "Retired" (In retirement or in early retirement or has given up business); 4 "Inactive" (Permanently disabled or/and unfit to work; In compulsory military community or service; Fulfilling domestic tasks and care responsibilities; Other inactive person); and indicates "Student" (Pupil, student, further training, unpaid work experience).

## Labor force status, after 2008

Applies to individuals aged 16 and above. Measure the labor force status that individuals declare themselves as their main activity at present. For data in and after 2009, an additional category is included, which separates "Employed" (working full-time or part-time), from "Self-employed" (self-employed working full-time or part-time that includes family worker).

## Occupation

Applies to individuals aged 16 and above. Type of occupation of current/last situation. ECATSD generated the categories based on International Standard Classification of Occupations (ISCO) under the

International Labor Organization.[6] Categories 1-10 indicates respectively: Army, Managers, Professionals, Technicians and associate professionals, Clerical support workers, Service and sales workers, Skilled agricultural, forestry and fishery workers, Craft and related trades workers, Plant and machine operators and assemblers, and Elementary occupations.

## Sector of employment

Applies to individuals aged 16 and above. Sector of employment of current/last situation. Definition and categorization are taken from the "statistical classification of economic activities in the European Community" and is the subject of legislation at the European Union level, which imposes the use of the classification uniformly within all the member states.[7]

National accountants have identified a need for two standard aggregations of ISIC/NACE categories to be used for reporting SNA data from a wide range of countries. The first, known as "high-level aggregation", aggregates the ISIC/NACE sections into 10 or 11 categories; the second, called "intermediate aggregation", aggregates divisions and is composed of 38 categories. The two aggregated structures are not an integral part of ISIC/NACE, but are fully integrated into their hierarchical structure (high-level aggregation, sections, intermediate aggregation, divisions, groups and classes).[8]

The "high-level aggregation" contains 10 categories. Categories 1-10 indicates respectively: Agriculture, fishing, hunting, forestry; Mining, quarrelling, manufacturing, electricity, gas & water; Construction; Wholesale, retail; Hotel & restaurant; Transport, storage, communication; Financial intermediation, real estate; Public administration; Education, health and services; Arts, entertainment, social, private household, extra territorial.

## Type of employment

Status of employment for individuals aged 16 and above and is composed of four groups:

1. Self-employed with employees
2. Self-employed without employees
3. Employee
4. Family worker.

## 4.7 Simple and annualized change

Simple change is the total difference of an indicator between two years. The unit of measure is the same as the unit of the indicator.

Annualized change is calculated according to the following formula and measured in percent.

$$Annualized\ change = \left[\left(\frac{End\ value}{Initial\ value}\right)^{\frac{1}{number\ of\ years}} - 1\right] * 100$$

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[6] For a summary of major occupation groups identified by ISCO, please refer to
http://www.ilo.org/public/english/bureau/stat/isco/isco88/publ4.htm
[7] NACE Rev.2, *Statistical Classification of Economic Activities in the European Community*, Preface, pg 5.
[8] ibid, pg 43.

# 5. Data preparation and cleaning procedure[9]

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