

Population

Reference Metadata in Euro SDMX Metadata Structure (ESMS)

Compiling agency: Eurostat, the statistical office of the European Union

For any question on data and metadata, please contact: [EUROPEAN STATISTICAL DATA SUPPORT](#)

1. Contact

1.1. Contact organisation	Eurostat, the statistical office of the European Union
1.2. Contact organisation unit	Unit F1: Population
1.5. Contact mail address	2920 Luxembourg LUXEMBOURG

2. Metadata update

2.1. Metadata last certified	10 December 2009
2.2. Metadata last posted	13 January 2010
2.3. Metadata last update	13 January 2010

3. Statistical presentation

3.1. Data description

The tables presented here cover the 'demography' collection. How complete the tables are depends on the availability of data from the competent National Statistical Institutes.

Eurostat carries out yearly four annual data collections in the field of demography, three at national level and one at regional level:

1) **Rapid**: carried out in April-May (deadline 15 May of year T); this data collection aims at collecting the main aggregated information for the previous year and the population on 1 January of the current year.

More specifically, for a questionnaire sent in year T the following data are requested:

- Demographic balance by sex for year (T-1): population on 1 January of years (T-1) and T, live births in year (T-1), deaths in year (T-1), net migration and statistical adjustment in year (T-1).
- Other demographic data for year (T-1): live births outside marriage, deaths under 1 year old, marriages, divorces.

- Migration flows by sex in year (T-1): immigrants and emigrants.
- Demographic indicators in year (T-1): total fertility rate, male, female and total life expectancy at birth.

2) **Joint**: carried out in summer (deadline 15 September of year T); this is the main data collection of the year, and it is done in close co-operation with the United Nation Statistical Division (UNSD). It concerns detailed data by sex, age and other characteristics for the demographic events of the previous year and the population on 1 January of the current and previous years.

More specifically, for a questionnaire sent in year T the following data is requested:

- Population tables:

- population by age and sex on 1 January of years (T-1) and T;
- population by age, sex and legal marital status on 1 January of years (T-1) and T;

- Fertility tables: with reference to year (T-1),

- live births by mother's age, year of birth and legal marital status;
- live births by biological order and mother's age and year of birth;
- live births by month;
- total fertility rate and mean age at childbearing;
- legally induced abortions by mother's age and number of previous live births;
- late foetal deaths by mother's age.

- Mortality tables: with reference to year (T-1),

- infant mortality by age and sex;
- deaths by age, year of birth and sex;
- deaths by month;
- life expectancy at birth by sex.

- Nuptiality tables: with reference to year (T-1),

- marriages by previous marital status of bride and groom;
- first marriages by age, year of birth and sex;
- divorces by duration of marriage.

3) **Nowcast**: carried out in October-November (deadline 15 November of year T); this data collection aims at collecting the latest monthly data for the current year T on

- births,
- deaths,
- immigrants and emigrants

in order to produce a 1st January population forecast for the following year (T+1).

4) **Regional**: carried out in November-December (deadline 15 December of year T), it is based on a regional breakdown of the countries agreed at EU level using the latest version of the Nomenclature of Territorial Units for Statistics (NUTS) and of the Statistical regions for the EFTA and Candidate countries. Detailed data are collected at regional level NUTS 2 by sex, age and year of birth, on demographic events of the previous year and on population on 1 January of the current and previous year. Aggregated data are collected at NUTS 3 level.

More specifically, for a questionnaire sent in year T the following data is requested:

NUTS2:

- population by sex and age on 1st January of years (T-1) and T;

With reference to year (T-1):

- live births by age and year of birth of the mother;
- deaths by sex and age and year of birth;
- internal migration by sex and region of origin and destination (excluding intra-regional migration);
- arrivals due to internal migration by sex and year of birth (excluding intra-regional migration);
- departures due to internal migration by sex and year of birth (excluding intra-regional migration).

NUTS3:

- surface in km² on 1st January (total surface including inland water; land area) of year T;
- population by sex and broad age groups on 1st of January of years (T-1) and T;
- total number of births and deaths in year (T-1).

The data coming from the NSIs are validated by Eurostat, processed and loaded into NewCronos (Eurostat's free dissemination website). They are also the basis of the several thematic and horizontal Eurostat publications.

Data are presented by single country and for aggregates of countries. For EU and Euro Area, only the current and the previous version of the aggregates are published, currently EU-27, EU-25, EA-16 and EA-15. Moreover, data is shown for the European Economic Area (EEA) and the European Free Trade Association (EFTA); in the regional demography domain, an aggregate for the current candidate countries is also available.

3.2. Classification system

Not applicable

3.3. Sector coverage

Not applicable

3.4. Statistical concepts and definitions

The most recent (aggregated) data on total population, live births, deaths and net migration (including administrative corrections) can be found under the demo_dgen collection in the demo_gind table. This includes also the most recent Eurostat estimates, calculated using the Nowcast questionnaire data. In principle, the demo_gind table is updated three times per year, after each of the national data collections.

Detailed information on population (by age, sex and marital status) can be found under the demo_dpop collection. This disaggregated information is updated towards the end of each year based on information coming from the Joint data collection.

Moreover, any update sent by the countries in-between data collections are loaded into NewCronos after Eurostat validation. Aggregates are recalculated accordingly.

The [Glossary](#) can be consulted in "*Annex*" at the bottom of the page.

Population On 1 January

It refers to the usual resident population concept and it is the inhabitants of a given area on 1 January of the year in question (or, in some cases, on 31 December of the previous year). The population can be based on data from the most recent census adjusted by the components of **population change** produced since the last census, or based on population registers.

Population Change

The difference between the size of the population at the end and the beginning of a period. It is equal to the algebraic sum of **natural increase** and **net migration** (including corrections). There is negative change when both of these components are negative or when one is negative and has a higher absolute value than the other.

Natural Change

The difference between the number of live births and the number of deaths during the year. The natural change (or natural decrease) is negative when the number of deaths exceeds the number of births. The natural change (or natural increase) is positive when the number of births exceeds the number of deaths.

Net Migration and Net Migration including corrections

The difference between immigration into and emigration from the area during the year (net migration is therefore negative when the number of emigrants exceeds the number of immigrants). Since most countries either do not have accurate figures on immigration and emigration or have no figures at all, net migration is generally estimated on the basis of the difference between **population change** and **natural increase** between two dates (in Eurostat database, it is then called *net migration including corrections*). The statistics on net migration are therefore affected by all the statistical inaccuracies in the two components of this equation, especially population change.

Crude Rate Of Change

The ratio of the total **population change** during the year to the **average population** of the area in

question in that year. The value is expressed per 1000 inhabitants.

Crude Rate Of Natural Change

The ratio of **natural population change** over a period to the **average population** of the area in question during that period. The value is expressed per 1000 inhabitants.

Crude Rate Of Net Migration

The ratio of the **net migration** during the year to the **average population** in that year. The value is expressed per 1000 inhabitants. The crude rate of net migration is equal to the difference between the **crude rate of change** and the **crude rate of natural change** (that is, net migration is considered as the part of population change not attributable to births and deaths). It is calculated in this way because immigration or emigration flows are either not available or the figures are not reliable.

Crude Birth Rate

The ratio of the number of **live births** during the year to the **average population** in that year. The value is expressed per 1000 inhabitants.

Crude Death Rate

The ratio of the number of **deaths** during the year to the **average population** in that year. The value is expressed per 1000 inhabitants.

Age Dependency Ratio

The ratio of the number of persons of an age when they are generally economically inactive to the number of persons of working age (from 15 to 64 (1st variant) or from 20 to 59 (2nd variant) depending on the context). The total dependency ratio is obtained by adding the **age dependency ratio of the young** and the **age dependency ratio of the old**. Young age dependency ratio is defined as the ratio of the persons aged 0-14 (or 0-19) over the number of persons of working age (15-64 or 20-59); old age dependency ratio is defined as the ratio of the persons aged 65 and more (or 60+) over the number of persons of working age (15-64 or 20-59).

NewCronos structure:

1. Main Demographic Indicators (demo_gen)

demo_gind: Population change: absolute numbers and crude rates

Indicators:

Population on 1. January: total, male, female

Average population: total, male, female

Live births: total, male, female

Live births outside marriage

Deaths: total, male, female

Deaths under 1 year of age

Natural increase

Net migration: total, male, female

Immigrants: total, male, female

Emigrants: total, male, female

Net migration including corrections

Adjustment: total, male, female
 Total population increase
 Crude birth rate
 Crude death rate
 Crude rate of natural increase
 Crude rate of net migration
 Crude rate of net migration including corrections
 Crude rate of increase
 Population as a percentage of EU-27 population
 Total fertility rate.

demo_gnsiind: Indicators calculated by the National Statistical Institutes

Indicators:

Life expectancy at birth: total, male, female
 Total fertility rate
 Mean age of women at childbirth

2. Population (demo_pop)

demo_ppavg: Average population by sex and five-year age groups

demo_pjan: Population by sex and age on 1. January of each year

demo_pjanind: Population structure indicators on 1st January

Indicators:

Proportion of population by age groups
 Women per 100 men
 Young, old and age dependency ratios

demo_pjansin: Unmarried population by sex and age on 1. January of each year

demo_pjanmar: Married population by sex and age on 1. January of each year

demo_pjandiv: Divorced population by sex and age on 1. January of each year

demo_pjanwid: Widowed population by sex and age on 1. January of each year

Two definitions of age of the person concerned may be used for the classification of events occurred in a given year:

- the so-called **age reached** during the calendar year under review, i.e. the year of observation minus the year of birth (or age on 31 December)
- the age in full years at the time of the event, i.e. the so-called **age completed** (age at last birthday).

3.5. Statistical unit

See indicators

3.6. Statistical population

Total population

3.7. Reference area

European Union:

a. Individual Member States of the EU-27: Belgium, Bulgaria, Czech Republic, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, United Kingdom.

Please note:

- FX stands for metropolitan France, including Corsica, excluding the overseas departments (DOM: Guadeloupe, Martinique, Guyane, Réunion)).
- FR stands for the whole France, including the overseas departments (DOM).
- All time series for Germany (DE) refer to the Federal Republic within its frontiers after 3 October 1990.
- Starting from 1975, data for Cyprus (CY) refer to the government-controlled area.
- Up to 2000, population data for Malta (MT) refer to the Maltese population only while, starting from 2001, figures include also foreign resident. This is indicated by a flag b (break in series) in the figures for 2001.

b. The aggregates for EU and Euro Area

Please note:

These aggregates include FX until 1997 and FR from 1998 on. This change is indicated by a flag b (break in series) in the figures for 1998.

EU Candidate countries:

Croatia, former Yugoslav Republic of Macedonia, Turkey.

EFTA countries:

a. Iceland, Liechtenstein, Norway, Switzerland.

b. The aggregates EEA and EFTA.

Please note:

The aggregate EEA includes FX until 1997 and FR from 1998 on. This change is indicated by a flag b (break in series) in the figures for 1998.

Other European countries:

Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Moldova, Montenegro, Russian Federation, San Marino, Serbia, Kosovo (under UNSCR 1244), Ukraine.

Please note:

Data for Serbia do not include Kosovo.

3.8. Time coverage

Time series for the EU (Member States and Candidate Countries) and EFTA countries start generally from 1960 up to the latest available year. For other countries, series depend on national availability but longer series may be available in the future.

3.9. Base period

Not applicable.

4. Unit of measure

Absolute numbers are in thousands; crude rates are expressed per 1000 of the average population.

5. Reference period

The calendar year for all tables.

6. Institutional mandate

6.1. Legal acts and other agreements

Data are collected on the basis of a gentleman's agreement.

6.2. Data sharing

The Joint data collection is done in co-operation with the UNSD.

7. Confidentiality

7.1. Confidentiality - policy

[Regulation \(EC\) No 223/2009 on European statistics](#) (recital 24 and Article 20(4)) of 11 March 2009 (OJ L 87, p. 164), stipulates the need to establish common principles and guidelines ensuring the confidentiality of data used for the production of European statistics and the access to those confidential data with due account for technical developments and the requirements of users in a democratic society.

7.2. Confidentiality - data treatment

Not applicable.

8. Release policy**8.1. Release calendar**

Not available.

8.2. Release calendar access

Not available.

8.3. User access

In line with the Community legal framework and the [European Statistics Code of Practice](#) Eurostat disseminates European statistics on Eurostat's website (see item 10 - 'Dissemination format') respecting professional independence and in an objective, professional and transparent manner in which all users are treated equitably. The detailed arrangements are governed by the [Eurostat protocol on impartial access to Eurostat data for users](#).

9. Frequency of dissemination

Several times per year (see par. 15.1 Timeliness and 19.1 Revision policy).

10. Dissemination format**10.1. News release**

News releases on-line.

10.2. Publications

Free publications.

More information on publications:

2 regular SIF/DIFs on population and events

- Population in Europe: first results: published in summer, it describes the main aggregates coming from the Rapid data collection.

- First demographic estimates for the total population by country on 1 January of the following year (nowcasts) are published at the end of the year.

10.3. On-line database

Please consult NewCronos on-line or refer to [contact details](#).

10.4. Micro-data access

Not applicable.

10.5. Other

See also: <http://ec.europa.eu/eurostat>

11. Accessibility of documentation

11.1. Documentation on methodology

Working paper 3/2003/E/n. 27 "Basic methodology for the recalculation of intercensal population estimates".

Working paper 3/2003/E/n. 25 "Demographic statistics: Definitions and methods of collection in 31 European Countries".

11.2. Quality documentation

Not available.

12. Quality management

12.1. Quality assurance

Not available.

12.2. Quality assessment

Data is validated before publishing in NewCronos. See par. 20.4 Data validation.

No quality assessment is available.

13. Relevance

13.1. User needs

Demographic trend and developments have a strong impact on the societies of the countries and of the EU. Demographic statistics on the size and structure of Europe's population are used in a wide range of economic, social and environmental policy areas.

13.2. User satisfaction

No user' satisfaction surveys are carried out.

13.3. Completeness

Data completeness depends on the availability of data from the competent National Statistical Institutes.

14. Accuracy and reliability**14.1. Overall accuracy**

Not applicable.

Please note anyway that most countries carry out post-census corrections of their population figures and send data to Eurostat.

14.2. Sampling error

Not applicable.

14.3. Non-sampling error

Not applicable.

15. Timeliness and punctuality**15.1. Timeliness**

Main aggregated information on population and demographic events of year (T-1) are collected in spring of the year T; these data are available around the end of May of the year T.

Detailed data by sex, age and other characteristics for the demographic events of year (T-1) are collected in summer of the year T, together with detailed information on population on 1 January of years T and (T-1); these data are available around the end of the year T.

15.2. Punctuality

Not applicable.

16. Comparability**16.1. Comparability - geographical**

Eurostat requests to all countries demographic statistics based on the concept of usual resident population. The statistics on population refer to the national and regional population at its usual residence. In accordance with this concept, the following persons are considered to be usually residents of the geographical area in question: those who have lived in their place of usual residence for a continuous period of at least 12 months before the reference date or those who arrived in their place of usual residence during the 12 months before the reference date with the intention of staying there for at least one year.

Eurostat requests from Member States and the countries participating in the Eurostat annual data collections, data on population on 1 January. Countries may collect at national level using a different reference date: for most of them, 1 January or 31 December of the previous year is used but some countries may refer to mid-year or another date. Countries may provide the legal or registered population instead of the usually resident population. The population is based either on data from the most recent census, adjusted by the components of population change produced since the last census, or on population registers.

16.2. Comparability - over time

See par. 3.7 Reference area (geographical coverage).

When a methodological change occurs, the flag b (break in series) is used.

17. Coherence

17.1. Coherence - cross domain

Population figures in demography may differ from those available in National Accounts or Labour Force Survey data.

17.2. Coherence - internal

Data are checked for internal consistency before making them available in NewCronos. Corrections are also performed ex-post, if errors are found.

Please note anyway that for some countries the tables on population by marital status (Unmarried, married, divorced and widowed population by sex and age on 1. January of each year) may be not consistent with the population by sex and age on 1. January of each year (demo_pjan).

18. Cost and burden

Not relevant.

19. Data revision

19.1. Data revision - policy

Series are revised on a continuous base according to the most recent updated data provided by the countries. EU and other aggregates are updated accordingly. Demographic indicators are updated once per year in Spring-Summer.

19.2. Data revision - practice

Data from the Rapid data collection are usually provisional or estimated.

Data from the Joint data collection are most of the time final.

In both cases, the status of the data is clearly indicated by using flags (flag p = provisional data; flag e = estimated value; flag s = Eurostat estimate).

20. Statistical processing

20.1. Source data

Data are collected by Eurostat from the National Statistical Institutes.

20.2. Frequency of data collection

Annual.

20.3. Data collection

See Working paper 3/2003/E/n. 25 "Demographic statistics: Definitions and methods of collection in 31 European Countries".

20.4. Data validation

Absolute figures received from the NSI are validated by Eurostat before being sent to the database.

Absolute figures received from the NSIs are validated by Eurostat before being sent to the demographic database and NewCronos.

Basic validations are carried out to check if the totals provided by the countries are consistent with the breakdown by sex, by year and by other characteristics (e.g., live births are the sum of births inside marriage plus births outside marriage; total population is equal to the sum of marital statuses, etc.).

Cross validations are carried out to check consistency between the different tables of one domain (e.g., the totals of births must be equal to the sum of births by rank).

Time series analysis by country can be done to check if outliers appear.

When demographic indicators are calculated, other errors can be detected in their time series by country.

20.5. Data compilation

Eurostat calculates all demographic indicators for all countries and all aggregates using a common methodology. Aggregates are estimated if a part of them is missing (which means, if not all countries that constitute the aggregate are available), but only the demographic indicator(s) of the aggregate is published in NewCronos and the flag s is used.

Besides this, Eurostat collects also national estimates for a few demographic indicators directly from the countries: total fertility rate, life expectancy at birth (total, male and female) and mean age of mother at childbearing. These indicators are available in NewCronos table demo_gnsiind.

For more information on specific tables, see par. 3.4 Concepts and definitions.

20.6. Adjustment

Not applicable.

21. Comment

21.1. Notes

To consult Specific notes by table, please see "*Annex*" at the bottom of the page.

21.2. Related Metadata

21.3 Annex

[Glossary](#)