

Population change - Demographic balance and crude rates at national level (demo_gind)

Reference Metadata in Euro SDMX Metadata Structure (ESMS)

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

Eurostat metadata

Reference metadata

- [1. Contact](#)
 - [2. Metadata update](#)
 - [3. Statistical presentation](#)
 - [4. Unit of measure](#)
 - [5. Reference Period](#)
 - [6. Institutional Mandate](#)
 - [7. Confidentiality](#)
 - [8. Release policy](#)
 - [9. Frequency of dissemination](#)
 - [10. Accessibility and clarity](#)
 - [11. Quality management](#)
 - [12. Relevance](#)
 - [13. Accuracy](#)
 - [14. Timeliness and punctuality](#)
 - [15. Coherence and comparability](#)
 - [16. Cost and Burden](#)
 - [17. Data revision](#)
 - [18. Statistical processing](#)
 - [19. Comment](#)
- [Related Metadata](#)
[Annexes](#) (including footnotes)

National metadata

National reference metadata

National metadata produced by countries and released by Eurostat

Belgium	Bulgaria
Czechia	Denmark
Germany	Estonia
Ireland	Greece
Spain	France
Croatia	Italy
Cyprus	Latvia
Lithuania	Luxembourg
Hungary	Malta
Netherlands	Austria
Poland	Portugal
Romania	Slovenia
Slovakia	Finland
Sweden	United Kingdom
Iceland	Liechtenstein
Norway	Switzerland
Montenegro	Albania
Serbia	Turkey

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

[Download](#)

1. Contact

[Top](#)

1.1. Contact organisation	Eurostat, the statistical office of the European Union
1.2. Contact organisation unit	F2: Population
1.5. Contact mail address	2920 Luxembourg LUXEMBOURG

2. Metadata update

[Top](#)

2.1. Metadata last certified	13/04/2019
------------------------------	------------

2.2. Metadata last posted	13/04/2019
2.3. Metadata last update	13/04/2019

3. Statistical presentation

[Top](#)

3.1. Data description

These summary metadata refer to the first results on the main demographic developments in the year of reference.

The first results on the main demographic developments in the year of reference (T) contain the total population figure on 31 December of year T (**further published by Eurostat as Population on 1 January of year T+1**), and total births and total deaths during that year. While submitting this data is a legal requirement from EU Member States (EU Regulation No 1260/2013 on European Demographic Statistics, which entered into force on 1 January 2014), countries submit on voluntary basis data also on immigration and emigration that occurred during the course of the year (T).

Eurostat's data collection on the above figures is called DEMOBAL and it is carried out in June of each year. Eurostat publishes these first demographic estimates in July of each year in the online database, in the table *Population change - Demographic balance and crude rates* (demo_gind).

These first demographic estimates may either be confirmed or updated by the Eurostat demographic data collection taking place in December each year (called Unidemo), whereby countries submit detailed breakdowns (e.g. by age and sex) of their yearly population data, including data on migration, both at national and at regional level. The online table *Population change - Demographic balance and crude rates* (demo-gind) will be accordingly updated. This table includes the latest updates on total population, births and deaths reported by the countries, while the detailed breakdowns by various characteristics included in the rest of the tables of the Eurostat database (Demography domain and Migration, for example the Population by citizenship and by country of birth table) may be transmitted to Eurostat at a subsequent date.

Please note that the time series before 2013 available in the online table *Population change - Demographic balance and crude rates* (demo-gind) were collected by Eurostat from the national statistical offices in the past, on voluntary basis.

The individual metadata files reported by the countries are also attached.

3.2. Classification system

Not applicable.

3.3. Coverage - sector

Not applicable.

3.4. Statistical concepts and definitions

Population on 1 January

Eurostat aims at collecting from the EU Member States data on population on 1 January. The recommended definition is the 'usually resident population' and represents the number of inhabitants of a given area on 1 January of the year in question (or, in some cases, on 31st December of the previous year). The population transmitted by the countries can also be either based on data from the most recent census adjusted by the components of population change produced since the last census, either based on population registers. (More detailed information is available in the national metadata files.)

Usual residence means the place where a person normally spends the daily period of rest, regardless of temporary absences for purposes of recreation, holidays, visits to friends and relatives, business, medical treatment or religious pilgrimage. The following persons alone 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 time; or
- those who arrived in their place of usual residence during the 12 months before the reference time with the intention of staying there for at least one year.

Average population

The average population is calculated as the arithmetic mean of the population on 1st January of two consecutive years. The average population is further used in the calculation of demographic indicators, like the crude rates per 1000 persons.

Population change

The difference between the size of the population at the end and the beginning of the period. Specifically, it is the difference in population size on 1 January of two consecutive years. A positive population change is also referred to as population growth. A negative population change is also referred to as population decline.

The population change consists of two components: natural change and net migration.

Natural change of population

The difference between the number of live births and the number of deaths during the year. A positive natural change, also known as natural increase, occurs when live births outnumber deaths. A negative natural change, also named as natural decrease, occurs when live births are less numerous than deaths.

Net migration plus statistical adjustment

Net migration is the difference between the number of immigrants and the number of emigrants. In the context of the annual demographic balance however, Eurostat produces net migration figures by taking the difference between total population change and natural change; this concept is referred to as net migration plus statistical adjustment. The statistics on 'net migration plus statistical adjustment' are therefore affected by all the statistical inaccuracies in the two components of this equation, especially population change. From one country to another 'net migration plus statistical adjustment' may cover, besides the difference between inward and outward migration, other changes observed in the population figures between 1 January in two consecutive years which cannot be attributed to births, deaths, immigration and emigration.

Population turnover

The total magnitude of changes in membership experienced by a population. It shows the 'gross' effect of the population components, by adding up gains (births and immigration) and losses (deaths and emigration) in a population, as compared to the population change which shows their 'net' effect. The population turnover consists of two components: natural turnover and migration turnover plus statistical adjustment.

Natural turnover

The sum of births and deaths numbers.

Migration turnover plus statistical adjustment

The sum of immigration, emigration numbers and the statistical adjustment reported in the population.

Crude rates

A crude rate is calculated as the ratio of the number of events to the average population of the respective area in a given year. For easier presentation, it is multiplied by 1000; the result is therefore expressed per 1000 persons (of the average population).

The table below presents a **summary with the reported reference populations** based on which statistics on population, births and deaths are transmitted by the national statistical institutes to Eurostat. Several countries place themselves in two categories, with justification in the national metadata files.

	1. Usually Resident Population ¹	Legal Residence Population ²	3. Registered Residence Population ³	4. Other
Population	BE, BG, CZ ^[4] , CY, DE, EE, EL, ES, FI, FR, HR, HU, IE, LT, LV, MT, PL, PT, RO, SI, SK ^[5] , RS, UK	CH, LI, FI	AT, CZ, DE, DK, ES, IS, IT, LU, NL, NO, SE, TR	-
Live births	BG, CY, DE, EE, EL, ES, FI, FR, HR, HU, IE, IT, LT, LU, LV, MT, NO, PL, PT, RO, SI, SK, RS, UK ^[6]	CH, LI, FI	AT, BE, CZ, DE, DK, ES, IS, NL, SE	-
Deaths	BG, CY, DE, EE, EL, ES, FI, FR, HR, HU, IE, IT, LT, LU, LV, MT, NO, PL, PT, RO, SI, SK, RS, UK ^[7]	CH, LI, FI	AT, BE, CZ, DE, DK, ES, IS, NL, SE	-

¹'Usually Resident Population' as stated in Article 2 of Regulation 1260/2013.

²'Legal Residence Population' is composed of those persons who are entitled to be settled in the country at the reference date, either by holding the national citizenship or by other authorization issued by national authorities.

³'Registered Residence Population' is composed of those persons who are listed on one or more registers owned by national authorities at the reference date. Each registered person shall be counted only once.

^[4]for non-nationals.

^[5]permanent residence.

^[6]only events occurring in the country.

^[7]only events occurring in the country.

3.5. Statistical unit

Statistical unit used is "person" as indicated in the online database or deductible from the title of tables or of the indicator.

3.6. Statistical population

Statistical population is total population as defined in 3.4. *Statistical concepts and definitions*.

3.7. Reference area

The population statistics are disseminated by single country, by region and by aggregates of countries, as follows:

- a) The Member States of the European Union and their regional structure as defined in the [Nomenclature of territorial units for statistics](#)
- b) The EU candidate countries and their agreed Statistical Regions following the same rules as the [Nomenclature of territorial units for statistics](#)
- c) The EFTA countries and their agreed Statistical Regions following the same rules as the [Nomenclature of territorial units for statistics](#)
- d) Other countries: Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Moldova, Russian Federation, San Marino, Kosovo (under UNSCR 1244), United Kingdom and Ukraine.
- e) The geographical aggregates European Union and Euro Area, on which the dissemination covers at least the current and the previous version of their composition, the European Economic Area (EEA) and the European Free Trade Association (EFTA).

For details on geographical changes over time see the notes by country under 15.2 *Comparability over time*.

National refers to the territory of a Member State within the meaning of [Regulation \(EC\) No 1059/2003](#) applicable at the reference time.

Regional refers to NUTS level 1, NUTS level 2 or NUTS level 3 as defined in the [Regulation \(EC\) No 1059/2003](#) and available according to the classification in force at the reference time; where this term is used in connection with countries that are not members of the European Union, "regional" means the Statistical Regions at level 1, 2 or 3, as agreed between those countries and the Commission (Eurostat), at the reference time.

3.8. Coverage - Time

The available time series collected and published in Eurostat database varies with the population breakdowns, with the longest time series starting in 1960 for national data and 1990 for regional data, and continuing to the latest available reference year.

The completeness of the time series of the demography and migration statistics collected on voluntary basis before the entering into force of the regulations listed in "6.1 *Institutional mandate – legal acts and other agreements*" and of the statistics which continue to be supplied to Eurostat on voluntary basis today depends on the availability of data transmitted by the national statistical institutes.

3.9. Base period

Not applicable.

4. Unit of measure

[Top](#)

Population, births and deaths figures are disseminated in integer numbers.

A crude rate is calculated as the ration of the number of events to the average population of the respective area in a given year. For easier presentation, it is multiplied by 1000: the result is therefore expressed per 1000 persons (of the average population).

5. Reference Period

[Top](#)

Data referring to population on 31 December of the reference year are transmitted by the Member States to Eurostat under the [Regulation \(EU\) No 1260/2013](#) on European demographic statistics. The data are conventionally published by Eurostat as 1 January of the following year (reference year + 1).

The reference period for vital events data is the calendar year in which the events occurred.

The reference period for migration flow data is the calendar year in which the migration occurred.

6. Institutional Mandate

[Top](#)

6.1. Institutional Mandate - legal acts and other agreements

[Regulation \(EU\) No 1260/2013](#) of the European Parliament and of the Council on European demographic statistics.

Commission Implementing [Regulation \(EU\) No 205/2014](#) of [Regulation \(EU\) No 1260/2013](#).

6.2. Institutional Mandate - data sharing

Not applicable.

7. Confidentiality

[Top](#)

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

[Top](#)

8.1. Release calendar

First demographic estimates (of year T) are released in July of the following year (T+1).

Regular updates of the Eurostat database are done in-between releases, as National Statistical Institutes transmit revisions of their data.

Note:

The most updated data on total population on 1 January may be found in the table "Demographic balance and crude rates (demo_gind)" of the online database. This table includes the latest updates (or revised data) on total population, births and deaths reported by the countries, while the detailed breakdowns by various characteristics included in the rest of the tables of the domain may be transmitted to Eurostat at a subsequent date.

A few situations may lead to different figures on population on 1 January displayed in different population tables at a given moment in time:

- The timing of the transmission / retransmission in case of revision to Eurostat of the population data for various breakdown.
- The succession of the annual demography data collections described above, which collect and update the total population and the breakdowns of population figures by various characteristics at different moment during the calendar year.
- The calendar of the national statistical offices for producing and releasing population broken down by characteristics which fall under the voluntary data collection, respectively the timings when data are transmitted to Eurostat.

8.2. Release calendar access

Not available.

8.3. Release policy - 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 - 'Accessibility and clarity') 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

[Top](#)

Population statistics are revised on a continuous base according to the most recent data released and transmitted to Eurostat by the National Statistical Institutes. The geographical aggregates and the demographic indicators are accordingly revised.

Dissemination is made in line with the **8.1 Release calendar** and with **17.1 Data revision-policy**.

10. Accessibility and clarity

[Top](#)

10.1. Dissemination format - News release

News releases on-line.

10.2. Dissemination format - Publications
Statistics Explained articles on Eurostat website Regional Yearbook Domain specific publications
10.3. Dissemination format - online database
Eurostat's Data Navigation Tree
10.4. Dissemination format - microdata access
Not applicable.
10.5. Dissemination format - other
Not applicable.
10.6. Documentation on methodology
"Demographic statistics: A review of definitions and methods of collection in 44 European countries", Eurostat, 2015 edition. For methodology documentation of each National Statistical Institute, please see the attached national metadata files.
10.7. Quality management - documentation
Not available.

11. Quality management	Top
11.1. Quality assurance	
Information on quality assurance sent by national statistical institutes:	
BE	All the statistical validation process is oriented towards the assurance of quality (internal coherence controls, cross-checks when available...)
BG	Quality of data is assured through procedures for data validation, editing, coding and verifying. The procedures are performed following clearly prescribed rules.
CH	The quality assurance measures are documented in the detailed concepts of the different statistics.
CY	The legal framework for producing statistics of high quality is provided by the Statistics Law No. 15(I) of 2000. Although at the moment there are no available written guidelines on how to implement quality management within the statistical production process, CYSTAT has made publicly available the strategic plan for quality which contains CYSTAT's commitment to the ten principles of the Declaration on the Quality of the ESS. CYSTAT also aims to adopt the Generic Statistical Business Model (GSBPM) and in this framework it is envisaged to set up procedures to monitor the quality of different stages of the statistical production as well as to establish a quality assurance plan.
CZ	The system of checks for inconsistent data was developed. The coverage of sent statistical notifications is monitored.
DK	The register on population statistics is based on daily updates from the Danish Population Register. All occurrences on the resident population such as internal and external migration, births, deaths, marriages and divorces are registered in the Population Register. Statistics Denmark waits 30 days after a reference date before producing the population data, in order to ensure the updates from delayed registrations.
EE	To assure the quality of processes and products, Statistics Estonia applies the EFQM Excellence Model, EU Statistics Code of Practice and the ESS Quality Assurance Framework (QAF). Statistics Estonia is also guided by the requirements provided for in § 7. „Principles and quality criteria of producing official statistics” of the Official Statistics Act.
EL	The Vital data come from administrative sources (Registry Offices of the Municipalities) and the error rate is very low. Comparative checks are being performed.
ES	Quality assurance framework for the INE statistics is based on the ESSCoP, the " http://www.ine.es/en/ine/codigobp/codigobupr_en.pdf " European Statistics Code of Practice, made by EUROSTAT. The ESSCoP is made up of 15 principles, gathered in three areas: Institutional Environment, Processes and Products. Each principle is associated with some indicators which make possible to measure it. In order to evaluate quality, EUROSTAT provides different tools: the indicators mentioned above, Self-assessment based on the DESAP model, peer review, user satisfaction surveys and other proceedings for evaluation.
FI	The Population Register Centre charges Statistics Finland with the task of conducting a sample survey on the correctness of the address information. Around 11,000 people are asked whether their address in the Population Information System is correct. If we assume that all the unchecked data of persons in the non-response are incorrect, the final proportion of correct addresses would be 98.1 per cent. Population development is produced from two statistical systems: population structure and population change systems. These two systems are governed two different organisations namely Population Register Centre (PRC) and National Statistical Office. Difference between population number at the beginning and at the end of the year must be the same as the population increase from the population change system. The police investigates the number of persons who leave the country illegally and the number has been observed to be small, couple of thousands.
FR	Population: see in English: https://www.insee.fr/en/information/2517226 and in French https://www.insee.fr/fr/metadonnees/source/s1321#documentation Births: Quality checks are done about double counts, exhaustivity (for instance by comparing with social security data),

	consistency... Deaths: Quality checks are done about double counts, exhaustivity, inconsistencies, errors... INSEE compares the death certificates with bulletins in order to check the exhaustiveness of the bulletins received. INSEE tries then to recover missing bulletins 7 bis from municipalities.
HR	"Implementation of Total Quality Management in Croatian Bureau of Statistics", CBS, Zagreb, 2014 "Handbook for Calculation of Quality Indicators", CBS, Zagreb, 2014
HU	Statistics are prepared in line with the principles of the European Statistical Code of Practice. The Statistical Office has a publicly available Quality policy. For the statistical production process Quality principles were prepared with major requirements and recommendations. As for product quality Eurostat Quality reports are filled in for certain statistics as well as the calculation of quality indicators. A documentation sheet is filled in annually for all subject-matter statistics covering main methodological information.
IT	Population change and stock data are checked before being uploaded into the database and disseminated to the public. The validation rules are established to ensure the data consistency and the comparability along times of indicators.
LU	As STATEC receives individual forms for birth and death directly from the different municipalities where the events occur great quality can be assured. We also compare our figures with those of the Ministry of Health (for deaths) and the Inspection of Social Security (Births).
LV	CSB of Latvia had developed a new methodology to evaluate usual resident population. Reason - Latvia has Population Register, however, according to the 2011 Census results the difference between number of population in the Population Register and according to the Census results was 155 thsd. or 7 % - the level of non-registered migration is very high. New method is based on Population Register and data from other administrative data sources (all data sources include personal ID codes; codes are used to merge data). The aim of the method is to estimate the status of actual place of residence at the beginning of the year for each individual registered in the Population Register. Logistic regression model has been developed. To evaluate quality of estimation, individual data from household surveys and Microcensus are used. http://www.csb.gov.lv/sites/default/files/dati/demstat_metodologija_eng.pdf
MT	Many efforts are made by NSO in order to ensure the production of demographic statistics at high quality standards. Measures that are implemented during the analysis stage include: - thorough checks on the administrative registers used for the compilation of vital events; - thorough checks on the administrative data used for the compilation of migration flows; - checks for double counting; - validation and cross-checking of results with auxiliary sources and past year's data, including census results.
PL	Sets of data on population do not include duplicated and inconsistent records. Correctness of data on births, deaths, and migration is guaranteed by Civil Status Offices and registration offices in gminas. Additionally it is controlled by CSO.
RO	Live-births and deaths were produced according to the art. 2 (e) of Regulation (EU) 1260/2013. The indicators on the resident population were produced using processed data from administrative sources, data received from the national statistical institutes of Spain and Italy, the Eurostat database on the population and international migration as well as the results of an econometric model based on small-area estimation techniques with a view to assessing the size of international migration.
RS	Data is validated before publishing in SORS.
SE	An annual quality assessment is carried out together with external quality experts. The results from the assessment provide input to quality improvements.
SI	Data prepared in accordance with European Statistics Code of Practice. More: http://www.stat.si/StatWeb/en/FundamentalPrinciples/CodeOfPract
SK	The data collection and processing of demographic statistics in Slovakia is conducted in accordance with the Quality management system of the Statistical Office of the Slovak Republic (ISO 9001:2009). Quality manual : Book of quality Methodological notes are included in all relevant population as well as in population databases.
TR	All documents regarding quality assurance are available at website of the TurkStat http://www.turkstat.gov.tr/jsp/duyuru/upload/qualityreports/qualityreports.html

11.2. Quality management - assessment

Art. 11 of [Regulation \(EU\) No 1260/2013](#) states that the Commission shall submit reports on its implementation, to the European Parliament and the Council as follows:

- first report by 31 December 2018, see [Report on the implementation of Regulation \(EU\) No 1260/2013 on European demographic statistics](#)

- second report by 31 December 2023

These reports are to evaluate quality of data transmitted by Member States and EFTA countries and data collection methods used and, if appropriate, should be accompanied by proposals designed for future improvement of legal framework for population and vital events statistics under this Regulation.

12. Relevance

[Top](#)

12.1. Relevance - User Needs
Population statistics are widely used for planning actions, monitoring and evaluating programmes in a number of policy areas in the social and economic fields, such as: <ul style="list-style-type: none"> • Analysis of population ageing and its effects on sustainability and welfare; • Evaluation of fertility as a background for family policies; • Evaluation of the economic impact of demographic change; • Calculation of 'per capita' indicators; • Key input for the EU decision-making process, as population defines the weight of each Member State in the Qualified Majority Voting of the Council of the EU.
12.2. Relevance - User Satisfaction
No user satisfaction surveys are carried out.
12.3. Completeness
Statistical data completeness depends on the availability of raw data transmitted by the National Statistical Institutes.

13. Accuracy

[Top](#)

13.1. Accuracy - overall

Eurostat collects data from the National Statistical Institutes. For a summary of notes on data accuracy by country please see the summary table below.

	Population	Births	Deaths	Immigrants	Emigrants
AT	Non-registered population not included. Inclusion of nationals and EU-citizens not having de-registered when emigrating abroad. However, this group is partially covered by calculations for the annual population figure for federal tax sharing. If analysis of different registers show that people are no other register than the population register, these are identified as potential nominal members. The share of these having been identified as actually not being present at the last census, is assumed to have migrated abroad and thus excluded from the population. Inclusion of nationals and EU-citizens not having de-registered when emigrating abroad. However, this group is partially covered by calculations for the annual population figure for federal tax sharing. If analysis of different registers show that people are no other register than the population register, these are identified as potential nominal members. The share of these having been identified as actually not being present at the last census, is assumed to have migrated abroad and thus excluded from the population.			Non-registered immigrants not included.	Missing de-registrations. However, these are partially covered by administrative checks of people with expired residence permits (third country nationals only). In addition, calculations for the annual population figure for federal tax sharing also identify nominal members, which are assumed to have migrated abroad and thus counted as additional emigrations.
BE	Possible small underestimation due to delay in the registration - remaining small over or under estimation of the number of asylum seekers - illegal population not taken in consideration.	see 'population'	see 'population'	see 'population'	see 'population'
BG	No reasons for any unreliability of the data.	see 'population'	see 'population'	see 'population'	see 'population'
CH	The source for data on vital events, migration and population stock data				

	Population	Births	Deaths	Immigrants	Emigrants
	are population registers and civil status registers. They cover the whole population, with the possible exception of parts of the roofless, vagrant and nomad population.				
CY	Since births and deaths are registered events which are almost 100% covered, any divergence between the estimated population and the actual population (in the mid-Census period) might be the result of the errors on the estimates of immigrants and emigrants. See CY metadata file, points 13.2 and 13.3.	Not applicable	Not applicable	There is the possibility of coverage error as well as the under-representation of the full population of immigrants in the sample.	There is the possibility of coverage error as well as the under-representation of the full population of emigrants in the sample.
CZ	See columns live births, deaths, immigrants, emigrants.	Live births taking place abroad are registered only if parents of the child require the registration.	Deaths taking place abroad are registered only if the bereaved require the registration.	Voluntary registration of persons from EU countries	Late deregistration of emigrants with previous residence in foreign countries and voluntary deregistration of persons with the Czech citizenship
DK	no unreliability	no unreliability	no unreliability	no unreliability	no unreliability
DE	The estimation of population on 1.1.2017 has a higher degree of uncertainty than in previous years. Due to the changes in processing population statistics less data were available for the estimation than usual.	The estimation of 2016 data has a higher degree of uncertainty than in previous years. Due to the changes in processing population statistics less data were available for the estimation than usual.	See 'Births' column	See 'Births' column	See 'Births' column
EE	Not available	Not available	Not available	Late or non-registration	Late or non-deregistration
EL	The difficulties in the estimation of emigrants have effects.				There is a lack of national sources and without this is difficult to estimate.
ES	Errors produced in the source of data to estimate demographic events.	Delays in the delivery of the information from some Civil Registers and lack of information in some variables from the register bulletin. This produces a non-response rate of approximately 0,1% This non-response is treated through information from the Ministry of Justice	Delays in the delivery of the information from some Civil Registers and lack of information in some variables from the register bulletin. This produces a non-response rate of approximately 0,1% This non-response is treated through information from the Ministry of Justice	Errors from the register that are treated through control and cleaning procedures. Errors from lack of completeness in variables that are treated through imputation procedures. Lack of information from lag in registers are treated through estimation procedures based in the observed behaviour of the registers of previous periods.	Errors from the register that are treated through control and cleaning procedures. Errors from lack of completeness in variables that are treated through imputation procedures. Lack of information from lag in are treated through estimation procedures based in the observed behaviour of the registers of previous periods.
FI	According to residence act of municipality 1994, persons moving abroad for at least 12 months should			Persons staying illegally in the country.	According to residence act of municipality 1994, persons moving abroad

	Population	Births	Deaths	Immigrants	Emigrants
	inform local register office of their move but they always don't do this.				for at least 12 months should inform register office of their move but they always don't do this.
FR	Not applicable	Not applicable	Not applicable		
HR	There are no particular reasons for any unreliability of the data on population except the under-coverage in net migration.	There are no particular reasons for any unreliability of the data on live births.	There are no particular reasons for any unreliability of the data on deaths.	Return immigration of nationals is not covered when emigration is not reported.	Emigration of nationals is not covered if they do not report their departure abroad.
IS	There are three sources of errors to figures in the National Register of Persons on 31 December: late notifications of change of residence, late death certificates, and late birth reports. In a survey of delayed reports over the past five years it emerged that the greatest uncertainty was caused by late notifications of change of residence, due to which an average of 80 persons are under- or overestimated in the National Register of Persons on 31 December. Late death certificates cause the number of persons to be overestimated by around 10 persons in the National Register of Persons on 31 December, while late birth reports cause the number of persons to be underestimated by one individual about every two years.	Delayed birth reports were for a short period the main cause of errors in birth figures. In a review of delays to birth reports over the last five years it emerged that no birth report was missing.	Information on the number of deaths published in the tables of Statistics Iceland is accurate; it can be considered certain that information on all deaths reaches Statistics Iceland.	<p>Late registration of change of residence is the main cause of errors in migration figures.</p> <p>Migration is calculated for each month and thus a final figure is available for each month on its own; the figures for that month are not changed at any point after that. If a change of residence is registered a month or more late it is added to the month during which it was received.</p> <p>When considering all moves over the past five years (from 1996-2000) only around 55% of registrations were received within a month of moving. After two months 96% of all registrations had been received by Statistics Iceland and within six months 98% had been received.</p> <p>Errors in published migration data appear due to delays in registration of change of residence.</p>	<p>Late registration of change of residence is the main cause of errors in migration figures.</p> <p>Migration is calculated for each month and thus a final figure is available for each month on its own; the figures for that month are not changed at any point after that. If a change of residence is registered a month or more late it is added to the month during which it was received.</p> <p>When considering all moves over the past five years (from 1996-2000) only around 55% of registrations were received within a month of moving. After two months 96% of all registrations had been received by Statistics Iceland and within six months 98% had been received.</p> <p>Errors in published migration data appear due to delays in registration of change of residence.</p>
IT	none	none	none	none	none
LT	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
LU	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
LV	data are reliable	data are reliable	data are reliable	data are reliable	data are reliable
MT	Possible sources of errors: - under-reporting in administrative	Possible sources of errors:	Possible sources of errors:	Possible sources of errors:	Possible sources of errors: - under-reporting in

	Population	Births	Deaths	Immigrants	Emigrants
	registers mainly due to late registrations over-coverage due to possible inconsistencies with the usual residence definition; - double counting of persons enlisted in more than one register; - inaccuracies in the mathematical models used in order to estimate migration components not available in the registers.	- under-reporting in administrative registers mainly due to late registrations; - over-coverage due to possible inconsistencies with the usual residence definition; - double counting of persons enlisted in more than one register.	- under-reporting in administrative registers mainly due to late registrations; - over-coverage due to possible inconsistencies with the usual residence definition; - double counting of persons enlisted in more than one register.	- under-reporting in administrative registers mainly due to late registrations; - over-coverage due to possible inconsistencies with the usual residence definition; - double counting of persons enlisted in more than one register; - inaccuracies in the mathematical models used in order to estimate migration components not available in the registers.	administrative registers mainly due to late registrations; - over-coverage due to possible inconsistencies with the usual residence definition; - double counting of persons enlisted in more than one register - inaccuracies in the mathematical models used in order to estimate migration components not available in the registers.
NL	In a limited number of cases the data received by Statistics Netherlands are incomplete. In such cases the missing data are estimated.				
PL	Reliable data	Reliable data	Reliable data	Reliable data	Reliable data
PT	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
RO	Possible slightly over/under coverage estimation, due to lack of strong sources for exact figures on emigration and immigration (especially for the returns and EU member states) needed to compute resident population.	Possible slightly under coverage estimation, due to tardive registration.	Possible slightly under coverage estimation, due to tardive registration.	Possible slightly over/under coverage estimation, due to lack of strong sources for exact figures on immigration (especially for the returns and EU member states)	Possible slightly over/under coverage estimation, due to lack of strong sources for exact figures on emigration. We used "mirror statistics" to estimate emigration figures.
RS	Due to lack of data on international migration, which should certainly be included in calculation of annual population estimates, it may be supposed that population estimates are not completely reliable data. But, the experience shows that population estimates from the intercensus period follows the trend of population.	Since the data on birth expressed in two surveys SORS (first results and data on birth), which means that each case is recorded in the survey First results and then processed in the framework of survey on birth, it is considered that the information on the final number of live births for the reference year is reliable and accurate.	Since the data on death expressed in two surveys SORS (first results and data on death), which means that each case is recorded in the survey First results and then processed in the framework of survey on death, it is considered that the information on the final number of deaths for the reference year is reliable and accurate.		
SE	There are no particular reasons for unreliability of the data.	see 'population'	see 'population'	see 'population'	see 'population'
SI	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
SK	No reason	No reason	No reason	Some persons fail to register upon their arrival to the country (mainly EU citizens, because of	Some persons fail to deregister when leaving for abroad, because the majority of them has an intention to return back.

	Population	Births	Deaths	Immigrants	Emigrants
				the freedom of movement).	
TR	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
13.2. Sampling error					
Not applicable.					
13.3. Non-sampling error					
Not applicable.					

14. Timeliness and punctuality	Top
14.1. Timeliness	
For timeliness of data release see <i>8.1 Release calendar</i> .	
14.2. Punctuality	
Not applicable.	

15. Coherence and comparability	Top
15.1. Comparability - geographical	
The recommended definition of the 'population' for the statistics on population reported under Article 3 of the Regulation 1260/2013 and under Article 3 of the Regulation 862/2007 is the 'usually resident population' meaning all the persons having their usual residence in a Member State at the reference time. Where the circumstances described above cannot be established, 'usual residence' can be taken to mean the place of legal or registered residence.	
15.2. Comparability - over time	
<p>Comparability over time could be disturbed by breaks in data series. The breaks in population series due to methodological, data processing changes or revisions in population counts reported by the countries are documented in Eurostat's database with the flag b (break in series). The population data for the year 2011 and after take into account the results of the latest population census (held in 2011). The time series of populations between the previous census and 2011 was revised by end 2013 by some of the countries, taking into account Eurostat's recommendation (for more information about data revision per country, see also <i>17. Data revision</i>).</p> <p>Over time there have been methodological and geographical changes for certain countries, see the notes below:</p> <ul style="list-style-type: none"> • FX stands for Metropolitan France, including Corsica, excluding the overseas departments (DOM). • FR stands for the whole France, including the overseas departments (DOM). Data on Saint Barthelemy are excluded starting with 1.1.2012. Data on Mayotte are included starting with the statistics on vital events for the reference year 2014 and with the statistics on population on 1.1.2014. • The European geographical aggregates (EU, EA and EEA) include FX until 1997 and FR from 1998 on. This change is indicated by a flag b (break in series) in the EU statistics for 1998. • The time series for Germany (DE_TOT) refer to the Federal Republic within its frontiers after 3 October 1990. • Starting with 1.1.1975, data for Cyprus (CY) refer to the government-controlled area. • Up to 1.1.2000, population data for Malta (MT) refer to the Maltese population only while, starting with 2001, figures include also foreign residents. This is indicated by a flag b (break in series) in the figures for 2001. • Starting with 1.1.2010, the statistics on the permanent resident population of Switzerland (CH) includes all persons in the asylum process who have been residing in Switzerland since 12 months or more. The change appears in Eurostat population figures starting with population reported for 1.1.2011. • Starting with 1.1.2010, Poland (PL) revised the methodology used to estimate the usually resident population. This is indicated by a flag b (break in series) in the figures for 2010. • Starting with 1.1.2011, Belgium (BE) population figures at national level refer to all registered persons including asylum seekers. • Starting with 1.1.2012, the reported Estonian (EE) population includes the migration component, whereas this was not included before. • Data for Georgia refer to the government-controlled area. • Data for Moldova refer to the government-controlled area. • Data for Ukraine exclude the illegally annexed Autonomous Republic of Crimea and the City of Sevastopol. 	
15.3. Coherence - cross domain	
The population figures transmitted by the national statistical offices to Eurostat in the framework of Demography domain may differ from those available in other domains such as National Accounts, Labour Force Survey or in the survey on Income and Living Conditions. The difference is given by the population coverage (see metadata specific to each domain).	
15.4. Coherence - internal	
See <i>8.1. Release calendar</i> .	

16. Cost and Burden	Top
Not relevant.	

17. Data revision	Top
17.1. Data revision - policy	
<ul style="list-style-type: none"> The policy of ESTAT is to make updates as soon as data is received and at any time during the year. In conformity with Regulation (EC) No 205/2014 Member States shall inform the Commission (Eurostat) of any planned revision of the data supplied no later than one week before the release of the revised data in the Member State concerned. 	
17.2. Data revision - practice	
<p>Population statistics are revised on a continuous base according to the most recent data released and transmitted to Eurostat by the National Statistical Institutes. The geographical aggregates and the demographic indicators are accordingly revised.</p> <p>The status of the data is indicated by using flags (flag p = provisional data; flag e = estimated; flag b = break in time series; flag f = forecast).</p>	

18. Statistical processing	Top
18.1. Source data	
<p>Demographic data are collected by Eurostat from the National Statistical Institutes.</p> <p>For a summary of the national sources of data please see the countries' individual metadata files or the summary table in annex.</p>	
18.2. Frequency of data collection	
Data are collected annually.	
18.3. Data collection	
The annual demography data collections are carried out by Eurostat from the National Statistical Institutes in order to collect detailed updated data.	
18.4. Data validation	
<p>Controls are carried out on raw data transmitted by the NSIs to check if the total of a variable is consistent with the breakdown by different variables. Consistencies between different breakdowns of the same variable are verified by cross validations.</p> <p>Based on the detailed collected data, Eurostat is computing a series of demographic statistics. The regular calculated demographic indicators are further submitted to several validations concerning the most updated annual value but also the available time series. These validations include checking on the plausibility of the most updated annual value and on two consecutive annual values. Mathematical verifications using standard deviation and weighted average are applied, for example for breakdowns of the life expectancy by educational attainment.</p> <p>For more information on data validation see: http://ec.europa.eu/eurostat/data/data-validation</p>	
18.5. Data compilation	
<p>Based on the national detailed figures on population and other demographic events transmitted by the National Statistical Institutes, Eurostat derives/calculates demographic variables and geographical aggregates by applying common calculation method.</p> <p>Geographical aggregation</p> <p>For population data expressed in number, the geographical aggregation is done by arithmetical sum, when there are no missing values among the components of the respective geographical aggregate. Otherwise, they are not calculated.</p>	
18.6. Adjustment	
Eurostat collects its data from the National Statistical Institutes. The following adjustments are used by each country. For more information information please see the countries' individual metadata files.	
AT	Details provided in national documentation.
BE	The Belgian population register 'suffers' from a limited number of shortcoming mainly late registrations. This results in a statistical adjustment of several of thousand persons - however on a population totalling more than 11.000.000 persons. There is scientifically agreement in Belgium that this is an acceptable bias.
BG	Estimates (based on NSI sample survey on trips of Bulgarians abroad and visitors to Bulgaria) are done in production of breakdowns of emigrants by destination countries. Since 2015, estimates and assumptions on volume of emigrants are done to improve figures produced both for emigration and population number.
CH	Difference between Population 2015 and Population 2016
CY	Not applicable
CZ	Only population figures from a year, in which was held population census, are recalculated by census results.
DK	There is a statistical adjustment of the population due to two things; first, annulments of deaths, immigrations and emigrations and second, missing and recovered people.
EE	By using new methodology - residency index. See 3.4.2. Population in the Estonian metadata file.
EL	No adjustments.
ES	Not applicable
FI	Population correction (immigration/emigration): Population correction is the difference of total change and population increase. Corrections are mainly adjustments made

	<p>later to errors occurring in handling of notices of removal.</p> <p>Statistical adjustments are mainly missing notifications on emigration. We would like to enhance that population structure system and population change system are independent and separate systems.</p> <p>In general, the move has taken place a very long time ago, in which case changing the information by a notice of removal would not make sense, or the person is known to have moved at some point but no information has been obtained on the target domicile.</p> <p>In material sent to Eurostat age is modified to mean age at the end of the year.</p>
FR	<p>Statistics of population include Mayotte since 2014. As the population on 31 December 2013 does not include this island, an adjustment is therefore needed. The adjustment in 2014 is equal to the population on Mayotte estimated on 31 December 2013.</p> <p>No adjustment in 2016.</p> <p>No extra adjustment is needed.</p>
HR	<p>Census data are collected and processed in line with the Conference of European Statisticians Recommendations for the 2010 Censuses of Population and Housing as well as with the regulations (EC) No 763/2008 and 1201/2009 of the European Parliament and the Council.</p> <p>Data on live births and deaths are collected and processed in line with the Regulation (EU) No 1260/2013 of the European Parliament and of the Council on European demographic statistics.</p> <p>Data on migration are collected and processed in line with the UN Recommendations on Statistics of International Migration and the Regulation (EC) No 862/2007 of the European Parliament and of the Council of 11 July 2007 on Community statistics on migration and international protection.</p>
HU	<p>The reason for the statistical adjustment is that population and vital statistics data are compiled from several separate data sources (i.e. civil registrars, health institutions, HCSO statistical data collection on vital events, Population register, Immigration and Asylum Office, National Health Insurance Fund), which are not fully harmonized.</p> <p>The register of EEA citizens was subjected to a revision, and some records were annulled by the Immigration and Asylum Office. This caused a decrease of the official number of foreign population, while the number of emigrating citizens did not grow. Therefore, a bigger adjustment was necessary for the year 2016.</p>
IS	No adjustments are made. Deviations between natural increase and net immigration and the population growth are not adjusted in the statistics.
IT	<p>In 2016 the statistical adjustments amount to a net value of -78,041 units.</p> <p>One first reason is due to registration and deregistration different from births, deaths, immigrations and emigrations. Secondly, the net internal migration at national level may be different than zero due to the collection procedures of provisional data that capture the aggregate in-migration and out-migration separately from each municipality.</p>
LU	Gap between the old and new methodologies and other reasons statistical adjustments (registration and deregistration due to reasons different from births, deaths, immigrations and emigrations).
LV	<p>In the Population Register there are data also on short time immigrants - those migrants are excluded from the population data base.</p> <p>International definitions are used also at national level.</p>
MT	Not applicable.
NL	Not available.
PL	Not applicable.
PT	Not applicable.
RO	<p>Live births and deaths are reviewed in December of the year following the reference year and they are released as definitive (final) data. The resident population data for 2016 are statistical adjusted with tardive decelerated and registries live births and deaths.</p> <p>Emigration and immigration are estimated based on "mirror statistics" and adjusted based on the trends of LFS.</p>
RS	Not applicable.
SE	The statistical adjustment refers to vital events that happened during previous years. The events were not registered in time to be included in the annual population figure for the previous year. However, no previous figures are adjusted.
SI	Not applicable.
SK	The demographic statistics data are collected and compiled in compliance with EU Regulations and using the code-lists harmonised with EU statistical standards.
TR	Not applicable.

19. Comment

[Top](#)

Not available.

Related metadata[Top](#)**Annexes**[Top](#)[Data sources reported by the national statistical institutes_2016Report](#)[Documentation on methodology published by national statistical institutes_2016Report](#)[Statistical concepts used by the national statistical institutes_2016Report](#)